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**106B: Big data and tax – domestic and
international taxation of data driven business**

General report
Gary D. Sprague (USA)

Branch reports

List of Cahiers published since 1939

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Once a year the Cahiers de Droit Fiscal International are published and distributed free to all the members of the Association. These Cahiers contain a wealth of domestic and international material in dealing with the main subjects to be discussed at the following IFA Congress. They comprise IFA branch reports together with a general report on each of the two subjects selected.

The printed publication of the Cahiers consists of the general reports of both Subject 1 and Subject 2, together with an EU report, an OECD report (on both subjects if applicable) and the summary and conclusions of all branch reports. The digital publication consists of the general reports, the EU and OECD reports (if applicable), as well as all branch reports including the biographies, abstracts and directives.

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INTERNATIONAL FISCAL ASSOCIATION

The International Fiscal Association (IFA) is a leading independent and neutral non-governmental, international non-profit organisation devoted to the study of international tax law. It comprises taxpayers, their advisers, government officials and academics and is a unique forum for discussing international tax questions.

The objects of the Association are the study and advancement of international and comparative law in regard to public finance, specifically international and comparative fiscal law and the financial and economic aspects of taxation. These objects are achieved by scientific research, the holding of national and international congresses, publications by means of its *Cahiers de Droit Fiscal International* treating two major subjects annually, cooperation with other organisations whose objects are mainly or partly fiscal, especially the International Bureau of Fiscal Documentation, the EU and the OECD and all other appropriate methods.

IFA is headquartered in the Netherlands and has approximately 13,000 members worldwide, deriving from 114 countries, with 71 branches.

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General report Subject 2

**Big data and tax – domestic and
international taxation of data driven business**

Gary D. Sprague (USA)

Big data and tax – domestic and international taxation of data driven business

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Summary and conclusions

The topic of Big Data and Tax - Domestic and International Taxation of Data Driven Businesses challenged the branch reporters to apply existing legal principles to new forms of commercial transactions. None of the branch reports disclosed any tax regime specifically legislated or regulated to apply to transactions involving data, except for recent unilateral taxes such as digital services taxes.

The branch reports addressed the topic in the context of four case studies which were designed to raise issues commonly seen in practice. The case studies described business models of (i) a data broker who pays for unprocessed information provided by a third party website host and transfers that data to customers for a fee, (ii) an enterprise which provides processed and structured data to another enterprise for a fee to be displayed on the payor's website, (iii) an enterprise which uses sensors placed on customers' equipment to provide performance analytics and repair services for a fee, and (iv) a consultant who creates a database on which to base its consultancy services and also allows others to access the database for a fee. Thirty-seven IFA branches submitted reports.

The branch reporters generally agreed that the fundamental issue in these transactions is the character of the transaction for tax purposes, both under domestic law and any applicable tax treaty. In many cases, the starting point for the characterization analysis is a review of the commercial law treatment of data transactions. Generally speaking, a copyright or intellectual property right does not exist in raw data, on the basis that data is equivalent to information. In most jurisdictions, there is no specific legal framework applicable to the data itself, other than in the area of regulating data privacy. Nevertheless, it is clear that enterprises can create and control value based on their data analytics functions and contractual restrictions on access to data which they grant to customers.

The branch reports exhibit a significant variety of analytical approaches to the characterization issue. It is not possible to harmonize all of the reports into a single analytical framework. It is possible to draw some general conclusions about tendencies, but it is clear that due to the undeveloped state of national law on this issue, individual circumstances in the national context may result in different analytical approaches and conclusions.

In general, most branch reports identified the principal characterization issue relating to data transfer transactions as the distinction between a payment for the provision of services versus a royalty for the grant of rights in an intangible. In a smaller number of reports, it was also considered possible that the transactions might be considered as a sale of property. The majority view was that the data transfer transactions described in the case studies constituted the provision of services, although the reasoning behind that conclusion differed among the reports.

There was no commonly used point of reference for analogous transactions. The most

¹ Gary D. Sprague joined Baker McKenzie in 1985. His practice focuses on advice to software, high technology, and digital enterprise companies.

promising analogy was to national guidance and OECD treaty interpretation regarding the classification of software transactions. The variety of approaches and conclusions expressed in the branch reports raises the question of whether a separate and specific technical framework should be developed to apply to data transactions, or whether existing principles are adequate to produce sensible and economically rational results. In general, at least for those jurisdictions which need to distinguish among the more common categories of sales of property, services, license of intangible property, or transfers of know-how, the prevailing view seems to be that existing analytical approaches can work. That said, the general reporter suspects that many branch reporters would endorse a proposal for international harmonization, perhaps through additions to the OECD MTC Commentary.

An appendix to the general report presents the income characterization conclusions from the branch reporters on the transactions described in the first two case studies.

Regarding transfer pricing, there is little or no precedent in local jurisprudence applying the relevant transfer pricing principles to transactions involving big data. In general, most branch reports referred to the relevant principles, such as the OECD Transfer Pricing Guidelines or domestic legislation, and observed that those principles appeared to be sufficiently robust to apply to big data transactions. There was a difference of views among the reporters on whether residual value in a data enabled transaction should be allocated to the data itself, or to the structuring and analytics functions that allowed the data to be commercialized. The majority pointed to the analytics work as the more significant value creating function under DEMPE concepts.

The most high profile special regime designed to apply to some (but only some) of the big data transactions described in the case studies is the digital services tax. While the tax expressly applies to revenue arising from the transmission of data collected about users and generated from users' activities on digital interfaces, no reporter from a jurisdiction which has enacted a DST reported interpretative issues under this leg of the DST.

A number of the branch reports addressed the challenging question of whether barter principles should be applied to big data transactions of the sort reflected in the case studies. Several branch reports indicated that a barter theory of income and expense recognition might in principle apply, but there is only limited experience of the theory being applied in practice. Many branch reports commented on the perhaps practical impossibility of administering this theory, especially where individuals are involved on one end of the transaction.

Many branch reports described special regimes related to investment incentives which in principle are available to "big data" enterprises, in particular R&D credit or deduction allowances, and in many cases patent or innovation boxes. In general, there is no inherent barrier for big data business enterprises to qualify for the various incentives.

The volume of cross-border "big data" transactions inevitably will increase. Creative entrepreneurs will continue to devise business models that may pose even greater challenges to apply the appropriate tax treatment to novel transactions than the case studies discussed here.

1. Introduction

The topic of Big Data and Tax - Domestic and International Taxation of Data Driven Businesses presents an unusual context for a comparative law analysis of the tax treatment

of transactions described by the topic title. The frame of reference for this topic is not a type of transaction (e.g., Sharing and Shifting Losses - the “New” Profit Shifting?; Cancun 2022 Main Subject 1), or a tax policy issue (e.g., Group Approach and Separate Entity Approach in Domestic and International Tax Law; Berlin 2022 Main Subject 1).

Instead, the context for this topic is the growth of technology which both enables new business models and enhances business functionality across many sectors and businesses. This technology enables businesses to access and analyze large amounts of data to develop and offer new goods and services on the market, improve their decision making, and in general capitalize on information technology tools to create value and capture business efficiencies.

The general reporter is not aware of a past IFA main subject or seminar on the specific issue of “big data”, although seminars at prior IFA Congresses on software, e-commerce and digital transactions have raised many of the same areas of inquiry, such as the characterization of transactions for both domestic law and treaty purposes.

“Big data” is not a legal or fiscal term in its own right. Rather, the term “big data” usually refers to projects, software, services or business functions that involve collecting, aggregating, structuring, and analyzing large information sets, often unstructured data or information that was originally collected for different purposes, which can lead to direct or indirect commercialization. A critical element of big data commercialization is the development and deployment of sophisticated data analytics tools, including algorithms, which allow an enterprise to determine relationships and tendencies within very large data sets and derive insights therefrom. This subject addresses tax issues arising from commercial transactions in which businesses aggregate, process, and analyze large data sets in order to create and provide new forms of goods or services or to improve the utility of goods or services already existing in the market.

Using data analytics to collect, aggregate, structure, and analyze large data sets has become an increasingly significant business function in the global marketplace. A large variety of businesses - not only or even primarily digital services providers - make use of big data techniques. Businesses implement big data analytics for many purposes, including to boost customer acquisition and retention, identify potential business risks, develop risk management solutions, innovate and develop new products, and manage supply chains.

Some business models which are based on big data analytics are very visible in the public eye, most notably those businesses which are able to aggregate and structure personal data. Those business models have received attention from regulators, as governments around the world have moved to protect personal privacy through regulatory limits on the use of personally identifiable information.²

Those business models also have attracted attention in the international tax arena, as the original impetus for the digital services tax initially proposed by the European Commission was based at least in part on the concept that companies which are able to collect and structure data from individual users for commercial benefit should be subject to tax in the user jurisdiction on revenues connected to that user data.

Big data business applications, however, extend far beyond those transactions subject to digital services taxes. Other emerging and foreseeable business applications of big data

² See, e.g., the General Data Protection Regulation in the EU (Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, and the California Consumer Privacy Act of 2018 (Cal. Civ. Code §§ 1798.100 - 1798.199.100).

technologies include, among others, the following: connected and autonomous vehicles; medical research; remote equipment monitoring; machine learning; predictive and prescriptive analytics; and an increasingly interconnected “Internet of Things.”

The relationship between big data and taxation involves both domestic and international aspects. Branch reporters were encouraged to consider tax issues that may arise across the larger spectrum of data enhanced businesses. In particular, branch reporters were asked to consider how their jurisdictions treat payments to nonresident firms that use big data to provide goods or services to their residents.

Thirty-seven IFA branches submitted branch reports on the topic.³ In all cases, the reports were of high quality, and reflected thoughtful consideration of these challenging issues. The general reporter was gratified to see many contributions from younger IFA members; clearly the topic resonated with those who have grown up in an intensely digital environment.

2. Legal framework

Many of the issues arising from transactions involving big data require a consideration of the relevant property or commercial law aspects of data and of transactions in which data are used or conveyed. The legal framework relating to collection of, use of, and transactions in data is highly undeveloped around the world and the application of general legal principles to big data and related transactions may vary from jurisdiction to jurisdiction. Generally speaking, in most jurisdictions a copyright or intellectual property right does not exist in raw data, on the basis that data is equivalent to information. However, some jurisdictions are considering the creation of *sui generis* ownership rights in data, in some cases drawing fine distinctions between various types of data, including raw data, personal data, machine data, etc. The EU has for some time had a *sui generis* database right, which does not create property in the data itself, but in the economic investment in collecting and organizing the data in a database. In most jurisdictions, however, there is no specific legal framework applicable to the data itself, other than in the area of regulating data privacy.

In order to provide the branch reporters with a background of generally applicable legal principles that determine rights in data, the general reporter provided a summary of prevailing academic commentary relating to legal principles that normally apply to the collection of or transactions in data.⁴ Branch reporters also were asked to consider their own country’s legal framework in order to confirm or elaborate on this general description.

³ The following Branches submitted reports: Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Chinese Taipei, Colombia, Czech Republic, Denmark, Finland, France, Germany, India, Italy, Japan, Republic of Korea, Liechtenstein, Luxembourg, Malaysia, Mauritius, Mexico, Netherlands, Norway, Peru, Poland, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, United States, and Uruguay. The general reporter thanks all of the branch reporters for their hard work and insightful observations.

⁴ I would like to express my appreciation to Lothar Determann, partner resident in the Baker McKenzie Palo Alto office, for his assistance in preparing this summary of the international legal framework.

2.1. General property law:

- In general, academics tend to agree that there is no property right in data *per se*, even when that data has been aggregated in a database.
- The general reporter is not aware of any general “data property statute” providing for a generalized property right in data.
- Various property law concepts might apply to protect against access to data and information by third parties. For example, data sets might be subject to access rights and restrictions.

2.2. Copyright:

- There is a general consensus among academics that there can be no copyright protection in data, as data are not the expression of an original creation; data exist separately from works of authorship, databases, and media.
- However, jurisdictions differ in the copyright protection given to databases.
 - US copyright law distinguishes between the substance of the data or information and the particular form or collection of words in which the writer communicates that data or information. See *Int'l News Serv. v. Associated Press*, 248 U.S. 215, 234 (1918).
 - US law does provide copyright ownership rights for compilations of data, so long as that compilation of data is creative in nature. See *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., Inc.*, 499 U.S. 340, (1991).
 - EU copyright law recognizes that copyright can exist in a database if the database meets the subsistence requirements of copyright at the member state level. Such rights would exist independent of the EU's *sui generis* database right.

2.3. Sui Generis Rights:

- Some jurisdictions afford limited *sui generis* protection for collections of valuable data sets.
- For example, European database laws offer copyright-like protection to creators of valuable databases. See Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases, 1996 O.J. (L 77) 20.

2.4. Trade Secret / Confidential Information:

- The law of trade secret / confidential information can protect information that is held secret, has value due to that secrecy, and steps are taken to maintain secrecy.
- These principles can apply to transactions in data depending on the circumstances.
- Device manufacturers generally cannot claim trade secret ownership rights in data and information collected by the devices they sell to customers.
- Similarly, consumers typically cannot claim trade secret rights in the data collected by the devices they own because normally consumers cannot claim a competitive advantage from keeping such data secret.

2.5. Contract law:

- Parties are free to regulate the use of data provided under contract per the terms of the contract.
- Contract law creates rights and obligations between the contracting parties and named beneficiaries, i.e., these agreements bind the other contracting parties but do not convey actual property rights.

2.6. Regulatory restrictions:

- Government regulation could impose obligations on those who acquire and process data, particularly personal data.
- For example, EU lawmakers have taken broad action to promote data privacy with the General Data Protection Regulation, which prohibits companies from processing any personal data unless there is a statutory exception.

2.7. Control:

- The fact of unique control over specific data sets may allow some enterprises to commercialize that data as a practical matter.
- Control may be exercised by not allowing others to access the data, or by transferring data only under limitations provided by contract.

3. Case Studies

Given the variety of transactions that could involve the use, transfer or other commercial exploitation of big data and big data analytics tools, the branch reporters were given a set of four representative case studies, which were designed to illustrate different tax issues that could arise in the very broad category of “big data transactions”. In some cases, branch reporters provided a specific analysis for each of the case studies; in others the branch report referred to a subset of those cases.

In most cases, the branch reports did not reproduce the facts of the case studies. Accordingly, the case studies are reproduced here to assist the reader of those branch reports which included an analysis of the case study without describing the assumed facts.

3.1. Data Brokers / Information Resellers

An enterprise is in the business of gathering data from various sources in order to build profiles of consumer behavior (“Broker Co.”). Broker Co gathers some information through application program interfaces (“APIs”) which a website owner (“Website Co.”) may allow to provide access to information generated through traffic on Website Co.’s website. Broker Co. also may separately contract with other suppliers to acquire information through loyalty cards, user-contributed data from social media websites, and various other sources. Broker

Co. makes an annual payment to Website Co. for access to user generated data through the API.

Broker Co. invests in engineering personnel who develop data analytics software which organizes and structures the data. Data retained in Broker Co.'s structured database may persist for several years. Broker Co. sells copies of data sets to Customers. Customers may set parameters to define the data sets they purchase. Customers may purchase the data sets for purposes of targeted advertising, fraud detection, marketing analysis, insurance risk analysis, or similar purposes. Broker Co. charges Customer fees based on the size of data sets supplied and the degree of analytics which it had applied to that data set. Broker Co. by contract prohibits Customers from on-selling the data. Customers may use the purchased data sets for as long as they wish, although the value of a static data set decreases rapidly over time.

Most Customers are located outside Broker Co.'s country of residence, and typically will download the data sets from Broker Co.'s servers. The data relates to persons resident inside and outside the residence jurisdictions of Website Co., Broker Co., and Customer.

3.1.1. Issues raised

This example was designed to raise the following issues.

- i. character: this example describes two payments that must be characterized for tax purposes, payments (i) by Customer to Broker Co., and (ii) by Broker Co. to Website Co. Does the character of these payments depend on the nature of data or Broker Co.'s structured database as property under applicable law? Does the lack of ownership of a property interest in the data itself signify something other than a sale? Under what circumstances could these transactions be characterized as a lease or license? If the data transferred is not property, should the transaction be characterized as a provision of service? Do the differences in the commercial relationships between Website Co. and Broker Co., and between Broker Co. and Customer, indicate a different character of the two transactions?
- ii. source: should the source of the income be at the place of business of Website Co., Broker Co., Customer, or the location of the persons who are the data sources? Does the source differ between the two transactions? Does it differ depending on the character of the transactions? How does the determination of source affect the tax treatment of the relevant income item?
- iii. nexus: could direct tax nexus exist for Website Co. or Broker Co. outside their countries of residence?
- iv. transfer pricing: assume that Website Co. and Broker Co. are related parties. What would be the most appropriate transfer pricing method to determine the price paid by Broker Co. to Website Co. for access to the user generated data? What facts particular to this business arrangement are most significant in making that determination? How would the different contributions to value of Website Co. and Broker Co. be evaluated?
- v. deduction vs capitalization and amortization: are Broker Co.'s data acquisition costs and software development expenses currently deductible expenses? If they must be capitalized, can those costs be deducted through amortization expenses? Over what period?

- vi. DST: if the jurisdiction has imposed a DST, could the DST apply to the revenue of Website Co., Broker Co. or both derived from selling the data sets?

3.2. Data Feeds

An enterprise is in the business of predicting animal migration (“Animal Data Co.”). The enterprise gathers data on weather forecasts, food supply, predator density, urban development, climate change, and other elements. The enterprise has developed data analytics tools which it uses to create maps of predicted animal density at various future points of time. Another enterprise operates a website whose viewers would be interested in animal migration information (“Information Site Co.”). Information Site Co. contracts with Animal Data Co. to provide a continuous feed showing migration patterns and predictions for a monthly fee. For the fee, Information Site Co. receives the data feed and is entitled to display the information to all viewers on its website. Information Site Co. receives no rights to use Animal Data Co.’s data analytics software and algorithms, except as may be necessary to allow display of the output on Information Site Co.’s website. Information Site Co. does not charge its users a fee to view the information. Information Site Co. is located in a different jurisdiction than Animal Data Co.

As an alternative, Animal Data Co. is a not for profit NGO formed for the purpose of supporting wildlife conservation. Animal Data Co. does not charge Information Site Co. a fee for the data feed, but it requires Information Site Co. to prominently indicate on its website that Animal Data Co. is the source of the information and to include a link to Animal Data Co.’s website. Information Site Co. supplies Animal Data Co. with personally identifiable data relating to visitors to the website who view the animal migration information. The NGO actively solicits donations from users who click through to its website using data received from Information Site Co. to target solicitation requests.

3.2.1. *Issues raised*

This example was designed to raise the following issues.

- i. character: in contrast to the data broker case, Information Site Co. does not sell the information received from Animal Data Co. Animal Data Co. does not transfer the underlying data items; it transfers the output produced through application of its data analytics software to the underlying data. Do these differences affect the character of the payments by Information Site Co. to Animal Data Co.?
- ii. source: the data is gathered from many places on earth. The data analytics tools are developed in Animal Data Co.’s jurisdiction, while Information Site Co. makes the information available to viewers throughout the world via its website. Is source of income determined by the location of the origin of the data, the place of operations of Animal Data Co., the place of operations of Information Site Co., the location of viewers of Information Site Co.’s website, or some other place?
- iii. nexus: Animal Data Co. is willing to sell access to its data feed to any person. Animal Data Co.’s sales model is based on advertising the availability of contracts through its website and then entering into contracts online. Assuming that Animal Data Co. has no physical presence outside its jurisdiction of operation, could this remote sales model

- give Animal Data Co. nexus in the Information Site Co. jurisdiction under the branch reporter jurisdiction's law?
- iv. treaty application: should these payments be treated as business profits? Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?
 - v. VAT: could the exchange of access to the data feed for personal data generated from click-throughs be seen as an exchange for value between Animal Data Co. and Information Site Co.? If so, should that barter exchange be recognized as a transaction subject to VAT? Similarly, a viewer of Information Site Co.'s website allows its data to be transferred to Animal Data Co. in exchange for viewing the information feeds on animal migration. Should that exchange be treated as a barter exchange and recognized for VAT purposes (or any other tax purpose)?
 - vi. DST: if the jurisdiction has imposed a DST, could the DST apply to the revenue of Animal Data Co. if the viewers of Information Site Co.'s website are located in the taxing jurisdiction?

3.3. Performance Data Analytics

An enterprise is engaged in the business of designing, selling, and servicing complex equipment ("Equipment Co."). An affiliate of Equipment Co. resident in a different jurisdiction ("Service Co.") enters into after-sales service contracts with equipment purchasers. An important part of the service contract is the provision of performance monitoring and failure prediction services to equipment users. Service Co. performs those monitoring and prediction services by obtaining real time performance data from the manufacturer's equipment over time, both the equipment purchased by the customer which has entered into the service contract and equipment purchased by other equipment owners. Service Co. has developed data analytics tools which are essential to its ability to perform these services. Those tools analyze data received from the equipment while in operation in combination with data derived from other machines over time to provide information to the equipment owner and Service Co. employees relating to early warnings of failure, risk prediction, suggested preventive maintenance, and needed repairs.

For a heavy equipment product line, Equipment Co. installs sensors in the equipment which it sells to customers. Equipment normally is sold on a bundled basis with a one-year service contract. Data collected by the sensors is used to develop performance analytics which enhance the services provided to all equipment owners purchasing a service contract. Most, but not all, equipment purchasers also purchase additional terms of the service contract after the first year.

For a consumer appliance product line, Service Co. provides sensor equipment for free to consumers who purchase an after-sales service contract. Some of this equipment is located at consumer locations outside of Service Co.'s jurisdiction of residence. Service Co. uses data derived from the sensors as well as accumulated data to remotely adjust the equipment and to recommend preventive maintenance.

The remote monitoring and failure prediction services are provided through a data center located outside the jurisdiction of the customer. The data center equipment hosts the data base that stores the historic data and captures real time performance data, and hosts the analytics software that predicts failures and proposes remedies. In many cases,

the repair services consist of adjustments to software or other equipment controls which can be implemented through communications from the data center without human participation. The data center assets might be owned by Service Co. directly, or through a separately incorporated affiliate. Data centers are located in several jurisdictions in order to reduce latency between the equipment being monitored and the data center.

Service Co. also provides consumer behavior consulting services to third parties for a fee based on information received from the consumer appliance user data. The data itself is not transferred to the consulting contract customer.

3.3.1. *Issues raised*

This example was designed to raise the following issues.

- i. character: in all three of these cases, a large part of the value provided by Service Co. derives from Service Co.'s data collection and data analytics capabilities. The automatic software corrections happen without human involvement at the time of delivery. Do these facts affect the characterization analysis?
- ii. source: this case includes a remote delivery of automated services from a data center without direct human involvement in the service delivery at the time of delivery. What is the source of services income in this case? Should the source determination be different if Service Co.'s analytics software is hosted on equipment owned by a third-party cloud service hosting provider?
- iii. nexus - sensors: in both the heavy equipment and consumer appliance cases, data is captured through sensors installed on equipment operating outside the residence state of Service Co. In the case of the heavy equipment, the sensor is installed by Equipment Co. as original equipment, and therefore is owned by the equipment owner. In contrast, the sensors installed on consumer appliances are acquired only by those customers desiring to purchase a service contract, and the sensors remain the property of Service Co. Could those equipment items in either case create direct tax nexus or a PE in the jurisdiction where the equipment is located?
- iv. nexus - data centers: the data centers which host the software necessary to provide the remote diagnostics and repair services are located near customers, outside the country of residence of Service Co. Under what circumstances could those data centers create taxable nexus for Service Co. in the other state? The data center assets alternatively could be owned directly by Service Co., by a separately incorporated affiliate of Service Co., or an unrelated party cloud hosting services provider.
- v. treaty application: should these payments be treated as business profits? Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?
- vi. transfer pricing: in any of these cases, is there a transaction between Equipment Co. and Service Co. which must be assessed under the arm's length principle? If so, what factors in this transaction determine which method is the most appropriate method? How would the different contributions to value of Equipment Co. and Service Co. be valued?

3.4. Analytics Based Consultancies

An enterprise is engaged in the business of providing consulting services to educational institutions to improve student results ("Consultant Co."). Consultant Co. has accumulated a database designed to capture and analyze data that predicts educational performance, career choice, and earnings potential. The database includes data spanning many years of student test scores, background factors including socio-economic background, residence addresses, ethnicity, language capabilities, parents' education levels and occupations, and similar factors, and post-graduation employment history. The data is derived from subjects located throughout the world. Consultant Co. uses that database to support its consultancy work with educational institutions to improve the likelihood of successful career outcomes through improved educational methods. Consultant Co. charges fees on a negotiated project basis for its consulting services.

Consultant Co. also allows third party researchers to access its database for a fee to engage in their own research projects. The access agreement does not allow the researcher to further disseminate the data, but does allow the researcher to commercialize the results of its research.

3.4.1. Issues raised

This example was designed to raise the following issues.

- i. character: Consultant Co. commercializes its structured database through different commercialization models. Are the two revenue streams characterized differently, and if so, why?
- ii. treaty application: should these payments be treated as business profits? Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?
- iii. deduction vs capitalization and amortization: how should the costs of data acquisition, software development, and creation and maintenance of the searchable database be treated?
- iv. DST: if the jurisdiction has imposed a DST, could the DST apply to either type of revenue derived from commercializing the student information database?

4. Outline of Topics

The branch reporters were requested to address the following topics, to the extent relevant in their jurisdiction, as applied to specific or generalized big data transactions:

1. Basic principles: character, source and nexus
2. Application of tax treaty principles
3. Transfer pricing
4. Special regimes, including digital services taxes (DSTs), incentives, and barter reporting regimes
5. Indirect tax
6. Tax accounting

In general, the branch reports follow that outline, which will assist the reader to compare discussions of those topics across jurisdictions.

5. Synthesis of branch reports

This general report addresses those technical issues which received the most attention in the branch reports, and which posed the most challenging technical analyses. No branch reporter described a domestic statute or regulation which comprehensively addresses data transactions,⁵ although several jurisdictions noted that the jurisdiction has imposed a DST or similar tax. Further, very little judicial or administrative guidance exists directly addressing data transfer transactions, or applying a technical analysis to “big data” transactions where the nature of the transaction as involving big data was an element in the case. Accordingly, in all cases, the branch reports principally operated from the basis that the technical analysis of a big data transaction would proceed by applying general principles of domestic law. In many cases, the reports illustrated the application of those general principles by applying those principles to the facts of the representative case studies.

Indirect tax and tax accounting, including deductions and amortization for the development of data based assets, are not discussed in the general report; readers interested in those topics can consult the branch reports directly.

5.1. Property law

Several branch reports provided detailed statements of legal principles in their jurisdiction relevant to big data transactions.⁶ Readers are referred to the reports themselves for the detail. Readers who appreciate the long view of legal history will note the Czech Republic report which connects current property rights relevant to data transactions with Roman law antecedents.

5.2. Character

By far the topic that engendered the most discussion in the branch reports was the characterization of the transaction under domestic law or by reference to the terms of tax treaties. In general, the analysis of character is the essential first step before applying other elements of tax law to the transaction, such as potentially withholding tax on cross-border payments. The Malaysia branch report, for example, presents a useful table that demonstrates the tax consequences of a transaction being determined to have a particular character.

⁵ See the Germany branch report, discussing a 2017 Federal Ministry of Finance circular which addresses data access transactions and tangentially refers to transfers of data, and the United States branch report which describes proposed regulations that cover data access transactions, but not cases of transfers of possession of the data.

⁶ See, in particular, branch reports from Czech Republic, Finland, Japan, Republic of Korea, Liechtenstein, Mauritius, Netherlands, Portugal, Spain, Switzerland, Turkey, and the United States.

This section reviews the analysis conducted for direct tax purposes. Several of the reports include additional descriptions of the distinction between a transfer of goods or a service for purposes of VAT law.⁷ Given that the indirect tax characterization distinction creates fewer classification issues, this general report does not summarize the indirect tax analyses.

The most challenging transactions, and the ones which gave rise to the greatest divergence of views among the branch reports, were transactions in which data alone is made available by one party to another. The “data broker” and the “data feed” case studies present those transactions. Those two case studies present different facts relating to the party in the transaction chain which applies data analytics tools to organize and structure the data in a way that would be useful to the person acquiring the data. In the data broker case, the entity which acquires raw data supplies the data to another enterprise that applies data analytics tools to structure and organize the data for further sale, while in the data feed case, the enterprise which collects the data also organizes and structures the data through its own tools in order to provide the data output to the recipient enterprise for display on the recipient’s website. Accordingly, the two examples gave the branch reporters an opportunity to compare a payment for an acquisition of raw data prior to the application of big data analytics tools to a payment for an acquisition of processed data which is an output of the application of those tools.

The branch reports exhibit a significant variety of analytical approaches. It is not possible to harmonize all of the reports into a single analytical framework. It is possible to draw some general conclusions about tendencies, but it is clear that due to the undeveloped state of national law on this issue, individual circumstances in the national context may result in different analytical approaches and conclusions.

In the cross-border context, the most significant consequence of the characterization analysis is whether a payment by a resident of the state to a nonresident supplier could be subject to withholding tax. In very broad terms, many jurisdictions approached that characterization issue by endeavoring to apply familiar classification categories: a purchase of property (i.e. the data); provision of a service; license of intangible property; lease of property; or transfer of know-how. Many jurisdictions do not have all of those distinctions in their domestic law, so that a jurisdiction which distinguishes only between “professional income” and “moveable income”, for example, would not need under domestic law to distinguish sales of property from the provision of a service.⁸ The laws of many jurisdictions which have emphasized source-based taxation rights impose tax on payments for various types of technical service fees.⁹ In a few jurisdictions, special categories which apply to digital transactions of various sorts also might apply to “big data” transactions.¹⁰

In general, most branch reports identified the principal characterization issue relating to data transfer transactions as the distinction between a payment for the provision of services versus a royalty for the grant of rights in an intangible. In a smaller number of reports, it was also considered possible that the transactions might be considered as a sale of property. The majority view was that the data transfer transactions described in the case studies constituted the provision of services, although the reasoning behind that conclusion differed among the reports.

⁷ See, e.g., Korean report.

⁸ See, e.g., Belgium report.

⁹ See, e.g., India, Colombia reports.

¹⁰ See, e.g., Chinese Taipei report.

In most cases, the branch reports commenced the characterization analysis by reviewing the copyright and property law treatment of the transaction. The reports confirmed that most national copyright and property laws conform to the general statement of law above on the point that there is no property right in data *per se*, and that copyright is not granted in the data itself. In many of the reports, the authors concluded that the absence of a property right in data suggested that a transaction in which data is transferred could not be characterized as a transfer of property. In the absence of a transfer of property, that analytical approach suggested that the most appropriate classification would be that of providing a service or other relevant form of business income.¹¹ This was the most common conclusion.

This conclusion was most widely adopted for transactions in unprocessed data. Where the provider had structured and analyzed the data, and then granted access to that data for a fee, there was more room to consider whether that transaction involved the grant of a right to use an intangible asset. Even in that case, however, the more common conclusion was that the nature of that data provision transaction is a service.

In other cases, the branch reports concluded that even if no ownership interest exists in the data under property law, tax law still might recognize an asset for tax purposes.¹² In that case, a classification analysis analogous to transfers of other assets might apply, leading to the possibility that the data could be sold or leased for tax purposes. From that perspective, contractual restrictions on further use frequently included in data transfer transactions could be seen as analogous to similar restrictions imposed on other transfers of property, supporting the use of property analogues.

In some cases, the reports suggested that a classification distinction could be based on a multi-factor analysis of economic or commercial elements of the transaction, including factors such as the payment structure, whether confidentiality restrictions were imposed on the user, the legal form of the transaction, and other circumstances.¹³

Those jurisdictions which concluded that any of the data transfer transactions was subject to withholding tax generally did so on the basis that domestic law would classify the transaction as a royalty for the use of intangible property, a payment for the transfer of know-how, or a technical service fee.

There was no commonly used point of reference of analogous transactions. The most promising analogy was to national guidance and the OECD model treaty commentary regarding the classification of software transactions.¹⁴ While these analogous sources of guidance were not necessarily controlling authority (the US regulations, for example, are expressly limited to transfers of computer programs), the software guidance referred to in the branch reports generally endeavor to distinguish between a software transaction which is analogous to an article of property passing in commerce (i.e. the sale of a copyrighted article), and a transaction that transfers to the transferee the rights to exploit the software copyright (i.e. an exploitation license). For jurisdictions that are inclined to regard a data transfer transaction as at least analogous to a property transaction, the software precedents could be useful in both the data broker and the data feed case studies to support the view that the data itself is more like a copyrighted article passing in commerce, so that its on-sale is not the exploitation of a protected right on the market. Even for those jurisdictions which

¹¹ See, e.g., Italy, Liechtenstein reports.

¹² See, e.g., Denmark report.

¹³ See, e.g., Mexico report.

¹⁴ Commentary to OECD MTC art. 12, paras 12 - 17.4; Germany, Norway and United States reports.

regard the provisions of data as a service rather than a transfer of property, the software authorities may be useful to demonstrate by analogy that a data transfer transaction does not constitute the transfer to the purchaser of a commercial exploitation right in the property itself.

5.2.1. *Example of analysis starting with property law*

For many branch reports, an important first step in the characterization analysis was to address the nature of data under local property law. For example, the Australian branch report described the general classification analysis as follows:

The key differentiating characteristic is that royalties are connected to an underlying capital asset (e.g., property or rights), whereas sales and services are not. ... In differentiating sales transactions from royalty transactions, it is important to recall that raw data cannot, without more, be described as property. Therefore, payments for the granting of a licence which allows only simple access to raw data is likely to be characterized as ordinary business income (i.e., a sale). Similarly, where a taxpayer is in the business of providing access to aggregated data for a fee (and the aggregated data does not amount to knowhow), the transaction is likely to be characterized as ordinary business income (i.e., a sale). This is the case regardless of whether the transaction is described as a 'sale', a 'licence', or otherwise.

The Australian report considered that existing domestic principles that distinguish sales from royalty transactions could be applied to data transfer transactions:

In differentiating services transactions from royalty transactions, the Commissioner has provided helpful guidance. Key differentiating characteristics of a service transaction include the following:¹⁵

- The contractor performs services (that may result in the creation, development or bringing into existence of property);
- The contractor applies existing knowledge, skill and expertise (i.e., there is not a transfer of pre-existing property, but a use by the contractor of the pre-existing property); and
- Any property created by the service belongs to the buyer without having to obtain any further rights in respect of the property.

One factor emphasized by the Australian report is the cost to provide the service:¹⁶

Although not conclusive, a common differentiating characteristic is cost. Whereas the provision of access to intellectual property (i.e., a royalty transaction) is unlikely to involve much beyond the copying of existing material, the provision of services is

¹⁵ Reference as cited in branch report: IT 2660, [29].

¹⁶ This factor was not unique to the Australian report.

likely to involve a much greater level of expenditure.¹⁷ Big data analytics, such as the interpretation or interpolation of big data or the identification or analysis of trends in datasets, would likely be treated as services. However, each case will be determined on its facts and, in certain cases, apportionment may be required.

5.2.2. *Examples of analysis supporting services classification*

The France branch report presented an analytical framework that placed the services classification category as a residual, if none of the other alternatives based on property concepts was more appropriate. Like most jurisdictions, the French report first analyzed whether a data transfer would constitute a property transaction:

As the French tax law does not provide for any specific definitions, French legal definitions should be used. In this respect, the transfer of data could be considered as a sale of intangibles when there is a transfer of ownership of the data. When there is no transfer of ownership but a right to use the intellectual property rights, the remuneration of such right should be considered as a royalty. Finally, if none of the previous characterizations is retained, the transfer of data should be considered as a provision of service.

Applying that construct to the data broker case study, the French report concluded that the sale of processed data transaction might be characterized differently depending on the commercial terms with the customer. The report notes that under applicable law, it is possible to transfer ownership of anonymized and structured data. In that case, the transaction in which the customer acquires a data set from the broker could be regarded as a sale of property. The report notes that if the data sets transferred had been structured in accordance with the needs of a specific customer, that factor supports sale characterization. While not expressly explained in the French report, the idea seems to be that in that case, the customized data set transferred was sufficiently distinct from other possible transactions arising from the same data pool that the particular data set transferred could be regarded as an item of property for tax purposes.

In contrast, the French report noted that the transaction between Animal Data Co. and Information Site Co. in the second case study does not transfer the ownership of data, but instead entitles Information Site Co. to display the data structured through data analytics tools developed by Animal Data Co. Applying French principles, the “transfer of data” by Animal Data Co. to Information Site Co. should be considered as a provision of service.

The Germany branch report notes that relevant guidance exists for the classification of some payments for the use of a database, in guidelines issued principally to address software transactions (principally software-as-a-service transactions). In the German context, the most significant distinction for purposes of the case studies is between transactions where the taxpayer is being paid to perform a certain activity, which would be characterized as a service fee, compared to a payment for a transfer of rights, which could be characterized as a royalty subject to withholding tax. For purposes of determining when a royalty may exist, a Federal Ministry of Finance circular issued in 2017 concludes that a tax liability on

¹⁷ Reference as cited in branch report: IT 2660, [30]-[32].

royalties is triggered only if the transferee is granted the right to commercially exploit the copyright. This approach is based on domestic copyright law and in principle is largely consistent with the OECD Commentary on article. 12, which also differentiates between the mere use of a copyrighted article by an end user and the right to commercially exploit a copyright.¹⁸ Applying that concept to data access transactions, the circular provides that royalty character is appropriate only where the user has been provided with comprehensive rights of use for commercial exploitation of the database, but not where the user is only granted rights required to conventionally using the different elements of the database (access, read and print functions).¹⁹

The analytical focus on whether the transferee has obtained rights to exploit the protected database thus produces the following results. Payments for access to and retrieval of data by end users from a database operated by a foreign taxpayer should not constitute an exploitation royalty subject to withholding tax, even if the customer uses the retrieved data in its domestic business. In contrast, granting the right to reproduce the database for distribution or the right to make the database publicly available for download would trigger a tax liability for the foreign licensor.

The German report was one of the few to expressly address streaming transactions in the framework of a copyright law based analysis. On that business model, the report notes:

The guidelines do not mention the supply of streaming data for display on a customer's website. While it could be argued that the customer has been granted a right to publicly display the content of the database, which might trigger a tax liability (similar to a license to show a movie to an audience in a cinema), the customer neither reproduces nor sublicenses the data. In addition, the data streaming contract may be classified as a "data delivery contract", under which the database owner is required to perform services which include frequent updates and reliable transmission of the data to the customer.²⁰

Applying these principles to the case studies, this copyright law influenced approach would conclude that neither payment in the Data Broker case study would qualify as a royalty. Payments by customers of Data Broker Co. do not constitute royalties on the basis that the users do not obtain the right to commercially exploit the data sets. The payment by Data Broker Co. to Website Co. would be more properly characterized a payment for permission to collect user data on its website, apparently on the basis that Data Broker Co. is not obtaining the use of a copyright protected database nor is acquiring know-how from Website Co.

The payment received by Animal Data Co. in the second case study presents a more challenging characterization analysis under this copyright law oriented approach. One view of the transaction is that the payment is subject to withholding tax on the basis that Information Site Co. is entitled to publicly display major parts of a database owned by Animal Data Co. and protected by copyright. The opposite view would be that the payment is not subject to withholding tax on the basis that Animal Data Co. is merely providing a service to Information Site Co. consisting of the timely and uninterrupted delivery of animal migration data and forecasts of migration patterns. An important part of the analysis would be a close review of the copyright law aspects of the transaction, raising questions of which copyright

¹⁸ OECD MTC art. 12 Commentary, paras. 13, 14.1 and 17.1 through 17.5.

¹⁹ BMF, 27 October 2017, BStBl. I 2017.

²⁰ FG Niedersachsen, 6 December 2018, BeckRS 2018, 42909.

law would be the controlling reference. Relevant points would be whether Animal Data Co. in fact holds copyright protection over its data or the way its reports are formatted, and if so, whether Information Site Co. commercially exploits that copyright.

The United States branch reporters note that there is no explicit guidance under US tax law as to the classification of data transfer transactions, but also point to two regulatory frameworks that could provide points of reference. The first set of regulations applies to transfers of software programs. Those regulations generally apply a copyright law based analysis to distinguish between transactions in copyright rights and transactions in copyrighted articles.²¹ While the regulation is limited by its terms to transfers of computer software programs, like the German Circular referenced above they provide useful analogous guidance by distinguishing between transactions in digital items that are treated as sales of goods versus the grant of a right of a commercial exploitation right in IP. Those regulations do not provide an analytical framework to distinguish services from property transactions in the data transfer context.

The second possible source of guidance is a set of proposed regulations which distinguish service from lease characterization for “cloud transactions”, defined as “obtaining on-demand network access to computer hardware, digital content or other similar resources”.²² In contrast to the software classification regulations, the cloud regulations do distinguish between transactions in services (providing a hosted computing environment) from transactions in property (leasing the computer infrastructure or the digital content), by applying rules traditionally applied to distinguish equipment leasing transactions from services arrangements.²³ Notably, the preamble to the cloud regulations explains that the drafters intended the regulation to apply to transactions that “share characteristics of on-demand network access to technological resources such as *access to information in certain databases*”.²⁴ There is no indication, however, whether the Treasury intended this reference to apply to data transfer transactions, as opposed to only transactions where users may access data but not acquire control over the data as in the case studies discussed here.

Ultimately, the United States report concluded that services classification generally would be a residual category, likely to apply if the transaction did not constitute a transaction in property that could be addressed as either a sale or lease of that property:

As noted, in a variety of contexts in the Code, the taxpayer must determine whether an item of income is considered compensation for personal services, or some other form of income. There is no specific test for this inquiry, and so general principles of US federal taxation apply. Stated simply, personal services income exists when the income is not better treated as another kind of income; in this sense, to characterize income as arising from services is in essence to prove a negative. Given the extent to which the Code defines intangible property by reference to statutory property rights,²⁵ and the general inapplicability of property rights to data, it seems that many data transactions (particularly, some aggregated data and most, if not all data analytics transactions), could give rise to services income, at least under existing rules.

²¹ Treas. Reg. § 1.861-18.

²² Prop. Treas. Reg. § 1.861-19(b).

²³ Prop. Treas. Reg. § 1.861-19(c)(2), listing the factors to distinguish provision of services from a lease of property. See also I.R.C. § 7701(e).

²⁴ Fed. Reg. Vol. 84, No. 157 (emphasis added).

²⁵ But see the catch-all provisions in the definitions in section 367(d) and Treas. Reg. § 1.482-4.

Several reports expressed at a high level the distinction between a services and a property transaction as the difference between the obligation to do something vs. the obligation to give something.²⁶ The concept of a service characterization being something of a residual category in the absence of a clear property transaction was not a commonly expressed approach, but it does provide a useful dividing line in principle.

5.2.3. *Example of a several factor analysis*

The Mexico branch report describes a multi-factor analysis to determine the character of a transaction. The reporters note that Mexico has enacted a data protection law that imposes responsibilities on persons who collect personal data from users and provides users with several protection rights. That law, however, doesn't create legal ownership rights *per se* over the data. Further, under Mexican law even aggregated data generally would not be protected by copyright law, as the collection and aggregation does not constitute an original creation as understood by the copyright law.

With that as the property law background, the report notes several possible characterization categories:

In our view, raw data, structured data and big data analytics transactions can be characterized in three different types of transactions: (i) the sale or exchange of property, (ii) granting the temporary use of intangible property or, (iii) the provision of a service. Since each data transaction is unique there isn't a rule of thumb to characterize them and the determination would greatly depend on the specific facts and circumstances.

The report then mentions several facts and circumstances which could be relevant. One interesting factor which could distinguish between a property transaction and a services transaction is the relative value inherent to the data itself as opposed to the value created by the work to aggregate and structure that data.

Under the sale of property construct, the consideration would need to be determined on the value of the data itself and not by any added value that may be created by the provider by aggregating data through an algorithm. This construct would be particularly difficult to sustain in the case of structured data and big data analytics transactions, as most of the value paid by customers in these cases derives from the aggregation and analysis performed rather than the data itself. This is strengthened by the fact that the value of raw data from each individual user is substantially less than the value of the data once it has been aggregated and analyzed by the provider.

Another important factor is based on property and data privacy law concepts. Under those laws, persons collecting and aggregating data generally are not considered to have legal ownership in the data and the data itself generally would not be protected under copyright law. That consideration would support characterizing the data transfer transactions as service transactions for tax purposes, and not as sales of the data or a license of intangible property.

²⁶ See, e.g., Brazil report.

The Mexican report lists other factors that could be relevant to classify the transaction:

- whether even in the absence of a property right under commercial or property law, the aggregated data is akin to a self-created intangible, like a customer list, goodwill or ongoing concern;
- whether the provider's participation is limited to providing access to data as opposed to aggregating and analyzing the data it then transfers (this consideration could create characterization distinctions between a raw data transfer and a processed data transaction);
- whether consideration is based on a fixed or a periodic fee, the amount of work performed, the value of the data, or some other factor (payment based on the amount of work performed is considered to indicate a service, while a fee paid simply as a matter of passage of time indicates a property transaction);
- whether the purchaser is restricted from further transferring the data (which would preclude a sale of property characterization); and
- the legal form of the commercialization agreement.

5.2.4. Possible theory of payment for use of equipment

The Austria branch report raised the possibility that payments for the use of data could be regarded as payments for the use of “industrial, commercial or scientific equipment.” The Austrian tax authorities take the view that “equipment” is not necessarily limited to tangible assets, but may also include intangibles, such as software. Applying such a broad interpretation of the term “equipment” could allow withholding tax on payments for access to data under treaties that allow withholding on payment for the use of equipment, such as those which follow the UN Model.

That said, the Austrian report nevertheless concludes that both the payment by Broker Co. to Website Co. for access to information gathered through website traffic and payments by customers to Broker Co. for acquisition of specific data sets would not be regarded as a royalty on the basis that in neither case does the transaction constitute the use of or a right to use a copyright. Whether the payments could be regarded as for the right to use equipment is left as an open question.

The Italy branch report, in contrast, disagreed with the suggestion that payments for data or access to a database could be regarded as a lease of equipment. That position is based on the view that data or a database cannot constitute equipment. Web hosting is seen as an analogous case. The provision of web hosting services normally would constitute the provision of a service, where the service provider simply makes space available on a server. That analogy supports the conclusion that data transfer transactions cannot be regarded as a lease of equipment.

5.2.5. Theories supporting royalty treatment for license or know-how transfer

Several of the branch reporters concluded that one or more of the case study transactions should be characterized as a license, giving rise to royalties, rather than as a form of business profits. The theories differed for that conclusion. The most commonly expressed theory was that the data being transferred was an intangible asset, and the payment was made

to acquire the use of that asset. In some cases, the payment was conceptualized as akin to a payment for the use of copyright.

The Republic of Korea Branch report, for example, notes that under domestic law applicable to cross-border transactions, data likely would be treated as an intangible asset. Data is analogous to other assets similarly treated as intangible property, such as copyrights, trade secrets, customer information and customer networks. Accordingly, data transactions potentially could be characterized as the provision of services, the license of intangible assets, the leasing of information, or the sale or exchange of property. The Korean National Tax Service has published guidance distinguishing personal services income from a know-how royalty as follows:

According to the Korean National Tax Service's authoritative interpretation, 'consideration for information that a foreign corporation provides to a domestic corporation by collecting and compiling publicly available data constitutes personal service income, whereas it constitutes royalty income if it is consideration for provision of unpublished technical information related to industrial, commercial or scientific knowledge and experience'.²⁷

The Finland branch report also addresses the circumstances in which the payment might be regarded as a payment for know-how. As is the case in most countries, the Finnish report first notes that a payment for the use or the right to use a copyright is classified as royalty. For the payment to be considered as compensation for the use or the right to use a copyright, it must be, in private law terms, remuneration for partial alienation of the copyright. Partial alienation of copyright means giving the other party a permit (license) to reproduce copies of the copyrighted work, for example a software master copy, or to make the copyrighted content available to the public either in the original form or in an altered form.

The same analysis should apply to payments made for the use of the *sui generis* right protecting databases or the similar right protecting certain catalogues. Two cases can be distinguished. A payment would be classified as a royalty if it is for the right to reproduce or make available to the public a *sui generis* protected database, or substantial parts of the database, either as such or in modified form. In contrast, a payment would be business income, and not a royalty, if it is only for the use of the database in the customer's own business operations.

The Finnish report also notes that concepts of know-how may apply to distinguish between payments which constitute royalties from those which constitute business income in the context of data transactions.

Different from products that are protected by copyright or a copyright-like property right, a payment for the right to use information or material that is not subject to any such right may constitute royalties even if it is simply for the acquiror's own use. This is because ... [the Finnish law on nonresident taxation] also covers remuneration for the use of technical and commercial information or know-how. In the context of big data this means that also a payment for the right to use an undisclosed algorithm or a programming technique, for example, may be classified as royalty. However, for such

²⁷ Written/Internet/Onsite Counseling Team II-1547, 27 September 2005.

payment to qualify as royalty the information must be provided with the condition that the customer will not disclose it without authorisation.

Applying these principles to the reference case studies, the Finnish reporter apparently inclines towards business income (i.e. not a royalty) for all payments in the data broker and data feed case studies, but noting that with respect to payments by customers to Data Broker Co., it would have to be explored whether the structured database created by Broker Co. constitutes protectable property under the relevant *sui generis* right. If the agreement with the customer includes a confidentiality agreement, that provision might indicate the presence of a know-how transfer.

The Liechtenstein branch report draws several distinctions between types of data as relevant for the characterization question. Based on the fundamental principle that there is no right of ownership in raw data, raw data can neither be leased nor sold. In contrast, structured or aggregated data, as well as analytics based on that data, are regarded as imbued with sufficient property rights so as to enable persons creating those works to sell or exchange the property rights. In the case of access to the data of a weather forecast for a periodic payment, however, the nature of that delivery of data possibly could be regarded as a license of intangible property.

While the Italy branch reporter concluded that a services characterization would be more appropriate in the data broker and data feed case studies, the report addresses in detail the circumstances under which a data transaction could be regarded as a transfer of know-how, thereby giving rise to royalty income. Know-how, along with use of copyright, were regarded as the possible bases for data transfer payments to be characterized as royalties under Italian law.

Know-how is defined in Italian law as follows:

Know-how is defined in the law as “information concerning industrial, commercial or scientific experience”. In line with international consensus, Tax Authorities defined know-how as an “undivulged complex of technical information, that may be patented or not, needed for the industrial reproduction of a product or a process, which constitutes a complement of what a manufacturer cannot know through the analysis of a product or the general knowledge of the progress of a technique”.

In applying this concept to the cases of data transfers, the Italian report emphasizes the distinction between using one's own know-how in the business versus transferring that know-how to another. As applied to data transfer transactions, the Italian report commented as follows in support of the conclusion that these case studies did not constitute the transfer of know-how:

As to know-how, while certain skills constituting know-how are certainly applied in order to collect, organize and analyze data, the output of these actions does not appear to constitute know-how in itself, in light of the fact that the skills needed to provide such output are not transferred; also, a specific activity may be put in place to provide structured data or data analytics targeted for the client, which confirms the application of skills which are already available and are not transferred.

As for the question of whether a data access payment could be regarded as a copyright royalty, the report noted that copyright does not apply to the data *per se*, but only to the

relational model of a database. Under these principles, the report concluded that the payments in both the data broker case study and the data feed case study should be characterized as service fees.

5.2.6. *Examples of other classification categories*

The classification analysis in some countries is based on categories other than the sale of property, provision of services or license of rights or know-how as generally described above. In these other jurisdictions, complex questions of classification can arise, with little possible recourse to precedents from other jurisdictions because the relevant classification categories are unusual.

In Colombia, for example, the most relevant classification categories are technical assistance, technical services, consultancy, and royalties. Of these categories, technical services and royalties appear to be the most likely categories to classify big data transactions.

The tax system of Chinese Taipei largely relies on source concepts to determine what payments to nonresidents without a fixed place of business in the country are subject to withholding tax. Different withholding rates apply to different types of payments, so a determination of the character of the payment is necessary to conclude whether the payment is subject to tax, and at what rate. The four relevant categories are licensing activity, provision of e-services, provision of (other) services, and provision of goods.

The distinction between a license and a service transaction is not clear. Intangible assets are defined broadly and while the definition does not expressly refer to data, possibly analogous intangible assets such as “client information” suggest that data could be treated as an intangible asset. While there are no prescribed factors to distinguish data transfers which are characterized as a license of an intangible asset from those that are treated as services, factors likely will include whether the service is tailor-made (a service factor) and whether the price is structured as a periodic payment (a license factor). Thus, the provider of access to a data feed likely is granting access to that data under a licensing arrangement, while if the provider customizes the data transfer output for the customer, that transaction is more like a service.²⁸

Chinese Taipei law also includes a special category of “e-services”, which are subject to their own withholding tax. This law is more recent, so its classification categories exist in parallel with the normal classification rules. This category was designed to address a much wider range of digital transactions than data transfers, such as digital deliveries of content, online games, and the like. The definition is based more on delivery methods than the type of value being transferred, but its scope apparently can encompass big data transactions such as weather predictions, mapping services, and the like. Transactions falling in this category are subject to withholding tax (at different rates) even if the service is carried out entirely outside Chinese Taipei. The withholding tax rate levied on payments for e-services is lower than the 20% rate applied to royalties.

Applying these principles to the reference case studies, payments for transfers of data sets by the data broker in the first case study likely would be characterized as a royalty. The data broker might be able to avoid royalty classification and qualify the payment as for

²⁸ Compare the France report, where customization of the data set transferred might indicate a property transaction instead of a service.

services if it customized the data sets for each user. Similarly, payment for the data feed provided by Animal Data Co. likely would be classified as a royalty based on the periodic nature of the payment.

5.2.7. Characterization aspects of the Performance Data Analytics and Analytics Based Consultancy case studies

The other two case studies, namely the Performance Data Analytics case and the Analytics Based Consultancies case, raised far fewer complex characterization issues, or at least inspired much less discussion in the branch reports. While the value of both businesses was considerably enhanced by big data inputs of capturing, structuring and analyzing information, the commercial transaction in both cases generally was regarded as the provision of a service. Even if classified as the provision of a service, different tax treatments could arise if the service were regarded as a technical service or a transaction which conveyed know-how, or if the service was deemed performed in the taxing jurisdiction.

The more common view was that the service provided in these two cases studies did not constitute the transfer of know-how. While valuable business information undoubtedly was used to perform the service, the output of the service did not constitute a transfer of that proprietary information to the customer. In contrast, for those jurisdictions whose domestic law or treaties allowed for source based taxation of technical service fees, these transactions were potentially subject to withholding tax on the basis that the service constituted a technical service.

For example, the Peru branch report noted that the principal classification distinction in these two cases would be between technical assistance and digital services. In either case, the payment abroad would be subject to withholding tax, although at a lower rate for technical assistance.

The Chinese Taipei report concludes that whether the offering is customized for the user is a critical character determinant in these two cases. The services provided in the Performance Data Analytics and Analytics Based Consultancies case studies both should be characterized as services rather than royalties despite the fact that the value of the service is greatly enhanced by reliance on big data collection, aggregation and analytics capabilities. Payments for those services would not be subject to withholding tax if the service is performed entirely outside of the jurisdiction. In contrast, if the same taxpayer in the Analytics Based Consultancy offers access rights to its database, the lack of customization for that user likely will cause those payments to be classified as a royalty.

5.2.8. Summary of characterization discussions

The variety of approaches and conclusions expressed in the branch reports raises the question of whether a separate and specific technical framework should apply to transactions in data, or whether existing principles are adequate to produce sensible and economically rational results. In general, at least for those jurisdictions which need to distinguish among the more common categories of sales of property, services, license of intangible property, or transfers of know-how, the prevailing view seems to be that existing analytical approaches can work. That said, the branch reporters were asked only to apply their jurisdiction's existing law to the transactions at issue, and were not asked whether a

separate regime should be designed, either through national statutory or administrative law, or through international harmonization. The general reporter suspects that the branch reporters would endorse a proposal for international harmonization, perhaps through additions to the OECD MTC Commentary.

The most common approach among the branch reports was to commence the analysis with an application of the copyright or other property law to the data transaction. The absence of copyright or property law protection for data *per se* in many cases led to and supported the conclusion that data transfer transactions should not be characterized as licenses of intangible property rights.

In some transactions, there may be uses of statutorily protected rights which are ancillary to the main purpose of the transaction. In those cases, a *de minimis* transfer of rights should not preclude the classification of the main transaction as a sale of property or a service. This concept forms a critical part of the OECD article 12 Commentary on software and the US regulations classifying software transactions. A *de minimis* rule will prevent incidental uses of IP rights to inappropriately characterize a transaction as a license when the main purpose of the transaction is the provision of services or a transaction analogous to the sale of copyrighted articles.

A data transfer transaction without more normally should not be classified as a know-how transfer. The elements that makes the provision of structured and analyzed data valuable to the purchaser beyond the inherent value of the individual data points are the software and algorithms which the enterprise uses to create the valuable structured database. In the case where the purchaser acquires only access to the structured data, the proprietary know-how embedded in that software or algorithms is not transferred to the purchaser, even if the user is willing to pay a high price for access to structured or even customized data. Accordingly, existing principles that distinguish between the transfer of know-how versus the use of proprietary techniques to provide technology enabled services should be sufficient in the normal case to conclude that data transfer transactions do not constitute the transfer of know-how.²⁹

Cases involving payments for access to or transfer of structured and analyzed data are more challenging than cases of the transfer of raw data. In those cases, the purchaser is paying for the work performed by the supplier to acquire and structure the data to make the output useful to the purchaser. In the commercial context, the purchaser normally will use that data in some productive way in its own business. The absence of distinct statutory property rights even in the structured data, however, would point to a classification as either a service or a sale or lease of property, but not as a license.

Even if a data transfer transaction would be regarded as giving rise to business profits rather than a royalty under a tax treaty, it may be necessary under domestic law to distinguish between sales of property or the provision of services. This distinction can be very challenging, as the purchaser normally will acquire the data under a contract which allows the purchaser to possess the data and to use that data as long as it wishes. The object of many data acquisition transactions, however, is to obtain current business information, such that in many cases the value of the data set delivered to the purchaser will dissipate quickly over time. In these cases, even if the transaction allows the purchaser to retain the data transferred, the principal business activity of the provider creating value in the market may be to continuously enhance the database. These factors, in addition to the point

²⁹ See, e.g., definition of know-how transactions in OECD MTC (2017). Art. 12 Commentary, paras 11 - 11.6.

that there is no property right in the data itself, would suggest that the most reasonable classification for data transfer transactions of the types described in the case studies should be that of providing a service.

In considering whether a withholding tax should be imposed on data transfer transactions as a matter of foundational tax policy, it is worth noting that income from allowing access to or transferring data sets will constitute the normal business income of an operating enterprise. Revenue from these transactions will be burdened by all the normal development and operating expenses of other businesses. A comparable industry might be enterprises that produce and distribute digital content, as the value of their product or service is created through a large expenditure of operating expense, but does not depend on any tangible elements.

As such, the economics of payments for data access or data transfers are unlike the pure profit payments that typically are subject to withholding tax. For example, these payments are very different from payments for the use of capital such as dividends or interest. Payments for the use of equipment or existing IP rights also are fundamentally different, in that an item of equipment or an IP right (such as a patent) are capital assets which in principle can be commercialized over their useful lives without further enhancement. In contrast, an enterprise based on collecting, structuring and analyzing data most likely establishes its market value through constant collection and transmission of new or refreshed data.

Policy considerations in many countries, of course, dictate that source based taxation should exist on a wider variety of cross-border payments, such as payments for technical services. In those cases, withholding tax might be imposed on payments for the transfer of data even if the underlying nature of the transaction is that of the provision of a service. It may make a difference in this analysis whether the technical service is one provided through the provision of human expertise, or is an automated service provided through computer interaction.

An appendix to this general report presents the income characterization conclusions from the branch reporters on the four transactions described in the Data Broker and Data Feed case studies. The conclusions were based solely on the facts as stated in the reference case studies, and thus would need to be reexamined in the context of any actual case.

5.3. Tax Treaty Principles - Permanent Establishment

All data is collected and stored through a physical apparatus of some sort. The Performance Data Analytics case study gave the branch reporters an opportunity to comment on whether either the collection devices or the data centers which store the data could create income tax nexus for the service supplier resident in a different jurisdiction. While not every branch report addressed the issue, several did include useful discussions as to whether the sensors or data center could constitute a permanent establishment ("PE") of the nonresident.

The Performance Data Analytics case study presented three different scenarios:

- i. sensors installed on equipment which then is sold (including the sensor) to the customer; the sensors collect and transmit data to be used by a separate legal entity providing services which are enhanced by access to that data;
- ii. sensors delivered separately to consumers who purchase an after sales service contract for their connected device; ownership of the sensor is retained by the service provider; and

- iii. data centers located outside the residence state of the service provider; the data center equipment hosts the database that stores historic data and captures real time performance data, and hosts the analytics software which is used to provide remote services to customers; the data center assets could be owned by the nonresident service provider or a separately incorporated affiliate.

The Denmark branch report provided the most complete exposition of these issues, as both scenarios have been addressed recently by the Danish Tax Assessment Board.

The first ruling addressed an equipment manufacturer that installed certain hardware and software in all equipment that it sold into Denmark.³⁰ The purchaser could activate certain services which were delivered through the hardware and software installed on the equipment. Noting that the basic test was whether the nonresident had the equipment at its disposal, the Board concluded that the nonresident taxpayer did not have a PE in Denmark as the equipment was at the disposal of the equipment owner, and the equipment owner is the one who could activate and deactivate the features.³¹

In a second ruling, the Board addressed the question of whether a nonresident could have a “fixed place of business” PE if the nonresident contracted with a related Danish entity for data center hosting services.³² The Danish entity owned the data center equipment, and its employees were responsible for maintaining the equipment. As with the equipment manufacturer case, the technical issue was whether the nonresident had the equipment located in the data center “at its disposal” within the meaning of the PE article of the relevant treaty. The Board concluded that the use of the data center by the nonresident did not create a PE, while expressly addressing the practical realities of how groups manage their software and data from remote locations. The Board came to its conclusion while recognizing the following facts:

The parent company and a small group of its employees would be granted permission to visit the datacenter but only if accompanied by employees of the Danish subsidiary. The parent company’s own employees – located outside Denmark – would handle the webpage through remote access. Such employees would have the possibility to monitor the efficiency of the hardware and software installed in the datacenter as well as to install and uninstall applications, to carry out maintenance of the hosted applications and finally to handle the software and data stored on the servers. In case a server would not work correctly (or in other situation of emergencies), this server could be shut down using the remote access, which also enabled redirecting the data to other servers.

This ruling provides a compelling analysis to reach its conclusion under a PE provision conforming to OECD MTC article 5 relating to a fixed place of business. As this case dealt with a related party owning the data center assets, profits arising from the data center activity itself would be allocated to the host jurisdiction pursuant to the intercompany services fee paid to the associated enterprise. The opposite conclusion would have produced a burdensome result for groups endeavoring to reduce latency and improve the

³⁰ Tax Assessment Board, SKM 2019.643.SR.

³¹ The Board also concluded that the payments for the features did not constitute a royalty, on the basis that the equipment owner paid for the use of the features, but not for any right to use patents, trademarks or other assets included in the royalty definition.

³² Tax Assessment Board, SKM2016.188.SR.

user experience by locating hardware to host their websites and data at locations close to users.

The Canada branch report also observes that for both the sensor and data center cases, the issue is whether the nonresident has control over the equipment, whether it is legal or physical control.³³ This is regarded as consistent with the OECD MTC article 5 Commentary, which mandates that the nonresident must have the premises or equipment “at its disposal”. The Canadian report distinguishes between the cases of data center equipment owned directly by the nonresident versus equipment owned by a separate Canadian entity, even if a related party. In the former case, the principal issue regarding PE status would be whether the activity conducted through the data center assets could be regarded as preparatory or auxiliary. This necessarily would be a factual exercise based on the nature of the information gathering or hosting process and the relationship of that activity to the core business of the enterprise. In the case of data center assets owned by a related entity, the Canada Revenue Agency has issued a technical interpretation in a case very similar to the Danish ruling that the provision of data hosting services to a nonresident does not create a PE, even when personnel of the nonresident have the ability to monitor traffic through the data center from remote locations.³⁴ With respect to sensors installed on equipment owned by third parties, as in the Performance Data Analytics case study, the Canadian reporter concluded “it is difficult to argue that the non-resident has control over the sensors.”

The India branch report presents a different view on both the sensors and the data center assets. For the sensors, the Indian reporters conclude that there is little doubt under the OECD Commentary to article 5 that the sensors constitute a fixed place of business of the nonresident obtaining data through the sensors (apparently concluding that the same analysis applies both to the sensors installed by the manufacturer on equipment and sold to the equipment purchaser and those delivered to consumers who purchase service contracts with title to the sensor remaining in the nonresident). The Indian reporters thus frame the critical interpretative issue as whether those sensors are at the disposal of the nonresident. Based on the facts stated in the Performance Data Analytics case, the Indian reporters conclude that the sensors were at the disposal of the nonresident entity providing the data analytics services and thus create a fixed place of business for the nonresident.³⁵ On the data center case, the reporters conclude that whether the assets are owned by the nonresident or by a locally incorporated affiliate is not important. Under the facts as presented in the Performance Data Analytics case study, the reporters conclude that it appears that the data center assets are at the disposal of the nonresident, and thus create nexus for the nonresident at the data center location.

Several branch reports addressed the case of server equipment located in the country and directly owned by the nonresident.³⁶ In these cases, the reporters generally referred to the relevant OECD MTC Commentary relating to electronic commerce for guidance when activity conducted through servers can be regarded as preparatory or auxiliary.³⁷ In practice, however, the more common issue arises when the data center assets are owned by

³³ CRA, Income Tax Technical News #22, 1 November 2002 and CRA, Income Tax Technical News #33, 16 September 2005.

³⁴ CRA, Technical Interpretation 2012-0432141R3, 2012.

³⁵ Citing to the decision of the Authority for Advance Rulings, in the case of MasterCard Asia Pacific Pte Limited (2018) 406 ITR 0043.

³⁶ See, e.g., Luxembourg report.

³⁷ OECD MTC art. 5 Commentary, paras. 122-131.

an associated enterprise, which makes the Danish and Canadian rulings described above the more significant interpretative statements in this area.

The Switzerland branch report emphasized that several analytical steps may be required to determine whether sensors could constitute a PE. Under Swiss domestic law, whether a sensor could be regarded as a fixed place of business mainly depends on its nature and purpose. Sensors attached to mobile equipment would not create a PE as they lack the requirement of being fixed. Fixed sensors, however, may constitute a PE if the data extracted from them is part of the core business of the enterprise and not just of an insignificant nature. In the treaty content, the issue arises whether the activity conducted through the sensor is solely for the purpose of collecting information for the enterprise, or is otherwise preparatory or auxiliary. As the Swiss reporter explained:

Whether or not collection of data qualifies as a preparatory or auxiliary activity needs to be determined taking the specific corporate purpose and business model into account. For data-driven corporations whose core purpose consists of collecting and selling raw data, data collection normally will not qualify as preparatory or auxiliary. A different view may be taken if a company collects data in its raw form so that it can convert or process them into a more readable format. If data processing is the main business purpose, collection of raw data may qualify as preparatory. In this writer's opinion, collection of data should qualify as an auxiliary activity if a company's value chain is mainly a physical one and data analytics are used as a tool to improve efficiency or reduce costs. In such a case, the captured information will be integrated in a physical value chain, which makes the data as a supporting element. The same holds true for corporations collecting data through a fixed place for the purpose of market research or the like. In this context, it may make sense to distinguish between external and internal data. External data provided to data consumers may indicate that the data themselves are the business asset and, thus, collecting them is not only a preparatory activity as long as they do not need to be significantly processed further (directly consumable information). These data are the service. When leveraging internal data, however, often another product or service is in the foreground. The question is, therefore, whether the business is built around data or data around the business.

Even if the sensors did constitute a fixed place of business PE, there would be a question whether any material income could be attributable to that PE, given the absence of activity by the taxpayer's personnel at the sensor location. This point would be particularly relevant for those jurisdictions which follow the Authorized OECD Approach for attributing profits to a PE.

5.4. Transfer Pricing

By far the most frequent response from the branch reporters on the transfer pricing topic is that there is little or no precedent in their jurisprudence applying transfer pricing principles to transactions involving big data. In general, most branch reports pointed to the relevant principles, such as the OECD Transfer Pricing Guidelines ("TPG") or domestic legislation, and observed that those principles appeared to be sufficiently robust to apply to big data transactions.

The Performance Data Analytics case study was designed to present an opportunity for

transfer pricing analysis. In that case, one member of the group designed, manufactured and sold equipment (Equipment Co.), while a different member of the group entered into after-sale service contracts with equipment purchasers (Service Co.). Equipment Co. installs sensors on the equipment at the time of sale, which transmit data to Service Co. Service Co. developed the data analytics tools which aggregated the performance history of the equipment, monitored current performance, and used that analyzed data to provide after sales service. Service Co. also made the benefit of its analytics available to Equipment Co. to allow Equipment Co. to improve its designs and manufacturing techniques. The principal issues raised by this case study is the division of value between the entity that controls the acquisition of the data (Equipment Co.) and the one which creates the data analytics (Service Co.), plus the allocation of value between the equipment sale and the bundled service contract.

The facts and circumstances nature of transfer pricing analysis presumably inhibited the branch reporters from analyzing this case in detail. Nevertheless, the reports did include several interesting observations on aspects of the transfer pricing analysis that would apply to data intensive transactions generally, including the relative value of raw data compared to the analytics process, the application of a DEMPE analysis to data intensive businesses, and the possible application of the residual profit split method to data intensive transactions.

Perhaps the first question is how to place data into the transfer pricing analytical framework, given that data themselves are not property under legal concepts. The Netherlands branch report addresses this issue. The report first notes in the legal discussion that ownership of data is not possible in Dutch property law, as data are not tangible assets. Software which is used to process data can be protected by copyright law, and the report further notes that “[d]ata of a commercial value, which has been processed by means of having been subject to reasonable steps to keep it secret, may be protected as a trade secret under the Netherlands Trade Secrets Act (*Wet bescherming bedrijfsgeheimen* 2018).” That said, the Dutch report concludes that “it seems to be generally accepted in international literature and at the OECD level that data may, given the circumstances, qualify as an intangible asset within the notion of chapter 6 OECD Guidelines 2017.” Indeed, after the revisions introduced as part of the BEPS project, the definition of “intangible” in the OECD TPG does not limit the scope of possible intangibles to items protected by property law. The TPG define intangibles as follows:

In these Guidelines, therefore, the word “intangible” is intended to address something which is not a physical asset or a financial asset, which is capable of being owned or controlled for use in commercial activities, and whose use or transfer would be compensated had it occurred in a transaction between independent parties in comparable circumstances. Rather than focusing on accounting or legal definitions, the thrust of a transfer pricing analysis in a case involving intangibles should be the determination of the conditions that would be agreed upon between independent parties for a comparable transaction.³⁸

The TPG include an example that assumes data can be regarded as an intangible used in a controlled transaction. That example describes an exploration company that “has acquired or developed valuable geological data and analysis, and sophisticated exploratory

³⁸ TPG, para 6.6.

software and know-how”, all of which it uses to provide exploration services to an associated enterprise.³⁹

Accepting that data could fall within the TPG definition of “intangible”, the Dutch reporters note that it is not clear how the value of data should be determined and attributed to an asset, as not all data would have the same value to a business. Recognizing the difference between raw data and data which has been structured and analysed, the Dutch reporters address that distinction as follows:

An additional item to consider is how any additional value and hence profits generated by digitalising business models can be allocated to the different members of a multinational enterprise. As per chapters 1-3 OECD Guidelines 2017, functions performed, risks assumed, and assets used by the involved members of a multinational enterprise remain pivotal for any transfer pricing analysis; hence also in relation to big data transactions. Against this background, it could be argued that data collection and storage could be considered low-value activities, especially if no (substantial) risks are being borne in this respect and any assets used are of (comparatively) low value. Further processing of the data, such as the interpretation and analysis thereof, and the control over the development and maintenance of relevant data processing software and other technology, are more likely to contribute to unfolding the value of data. It is therefore the member(s) of the multinational enterprise that perform these activities that would typically be allocated the largest portion of the profits.

Several branch reports emphasized the contributions of the analytics functions to the creation of value in any big data asset. The Singapore branch report analysed typical group functions which could create value in a big data intangible through a DEMPE analysis:

Using the DEMPE analysis one can factor in the role of multiple group entities in the creation of an intangible. In the context of big data, the key functions may include design of the database, software platform, algorithms and APIs, ongoing research and development including enhancements to the platform, strategic decisions and creative direction in relation to the database and product offering, decisions and actions to protect the intangible and ensure quality control, marketing functions that enhance the brand value of the intangible product, routine functions such as maintenance of server, troubleshooting and customer support. All these functions and services provided by related entities in the group can be compensated on an arm's length basis.

Similarly, the Switzerland branch report presented a useful classification of functions relating to the collection, structuring and exploitation of big data assets through the lens of DEMPE functions. The Swiss reporter presented her conclusions in the following chart:

³⁹ TPG, para. 6.106.

Functions	Activities
Development	• Research activities, such as: • Definition of big data strategy • Analysis how to digitalize value chain • Search for data sources and systems for data collection • Drafts in connection with IT architecture or cloud computing • Development activities, such as: • Implementation of big data strategy including cloud computing services • Construction of IT architecture • Data collection
Enhancement	• Test runs in connection with IT architecture and data processing • Search for alternatives
Maintenance	• Measures for keeping data pool up to date • Application management
Protection	• Draft and implementation IT security concept • Implementation of data security measures • Licensing or accessing rights
Exploitation	• Decision making process regarding data exploitation (e.g., sale, licensing, processing data)

This analysis emphasizes that value is created where these business functions are performed, as opposed to the location of origin of the data or the location of the customer for the data-enhanced service.

A significantly different view is presented in the Italy branch report. The Italian reporter notes a view that the value attributable to processing activity conducted through software operating on a hardware platform could be compensated according to a cost-plus mark-up, with the data itself being attributed the residual value. This view would become significant, for example, if in the case of a significant economic presence PE, the user contributed data were to be treated as an asset allocated to the PE even if the analytics work was performed elsewhere.

The German report also addressed the issue of the relative value contribution of the data collection function compared to the aggregation, structuring and processing functions, identifying the arguments on both sides of the issue. As expressed in the German report:

Some practitioners have argued that collection of data could be treated as a routine function of an associated enterprise, whereas the associated enterprise that aggregates or processes the data into a database should be entitled to residual profits. [footnote omitted] ... No official guidance has been published by the German tax authorities on this issue, but high-ranking members of the federal tax administration have indicated that they do not agree with this analysis. [footnote omitted] In their view, an enterprise that collects data and then transfers it to another enterprise within the group should receive compensation that reflects its value (as opposed to merely being compensated for the performance of collection services to the transferee).

In the view of the German reporter, however, the data collection function normally should be treated as a routine activity. At least in the case of non-personal data, the mere collection of data does not result in the creation of anything new or unique. A different result might arise where personal data subject to GDPR is collected, due to the greater legal liability risks assumed and control responsibilities performed by the entity acting as data controller.

The German reporter also surveyed recent German scholarly literature on the transfer pricing implications of data transactions in the context of value creation. Conclusions expressed in the literature included the following:

- It is very difficult to tie income from data transactions to a geographical location.
- Raw data as such has only little value because monetization requires the data to be processed first. As a result, there is virtually no value creation in the country of residence of users.
- Data from clinical trials is different in that it is considered to be quite valuable within the pharmaceutical industry. However, value creation is attributable to the companies that generate the data and not to the patients.
- Traditional TP methods can also be applied to digital transactions, but there should be a re-evaluation of the transactional profit split method.
- Profit splits should not be based on sales but on R&D expenses.

The view that the principal value creation in a data intensive business happens through the development and application of the software and hardware tools that perform the structuring and analytics function is clearly the majority view of branch reporters who commented on the point. On the point whether the data collection function relating to personal data might contribute more value due to the assumption of GDPR risks and responsibilities, it also could be argued that enterprises manage that legal risk simply by properly complying with legal requirements as opposed to creating value. Under that view, even for transactions involving personal data, the entrepreneurial value of the enterprise arises through the subsequent stages of the data management process, namely the aggregation, structuring and analytics which turn the collected data into a valuable resource for the enterprise.

While the performance analytics case study presented a relatively simple two-party arrangement, the Norway branch report notes that data can be shared within groups in many more complex ways. In many cases, including the performance analytics example, the data is not shared outside the group in either raw or processed form. Accordingly, there likely will be no market benchmarks for transactions in the data itself. The report emphasizes that the variety of possible uses of data within the group leads to the possibility of many different ways that the group could organize its intragroup relationships regarding the development and use of data, including in relationships without cash consideration:

Accordingly, we would expect to see arrangements that range from bartering arrangements to cost contribution arrangements with shared ownership, to licensing arrangements with one owner of the data, with many internal users. For the latter we can expect that some companies will charge a license fee, while others may provide the data for free. ...

If we look at the example of sharing of data within a group, this can be organized in many ways as described above, and will most likely depend on the underlying nature of the data, how it is collected, the use and application of the data, and the perceived benefit of the data to all users. Typically, many companies, by sharing data within the

group, will perceive that the benefit of accessing global data from all other group companies outweighs the value of their own contribution of data, and as such see that it is commercially rational to share the data for free as long as they receive access to the global data. Whether this perception is correct, will have to be considered from situation to situation, as it will be very fact specific.

It is also easy to see that you can have situations where you can organize the ownership of data in one or a couple of legal entities, for gathering, processing and analytics, and where processed data or analytics are provided to group entities. That use of the data needs to be compensated.

Assuming that the aggregated and structured data is considered to be an intangible under tax law, even if not property under property law, tax concepts specific to the transfer of intangibles will need to be considered. For example, in the case of a transfer of a database of aggregated and processed data, the TPG treatment of hard-to-value intangibles conceivably could be relevant.⁴⁰ In practice, however, the much larger number of intercompany transactions involving the use of valuable data arise in the context of the provision of services or the sale of goods by entities which use data to enhance the value of their commercial activities. For those cases, the TPG note that data held by the tested party enterprise may be a comparability factor which must be considered in performing a comparability analysis with uncontrolled entities engaging in similar transactions.⁴¹

Even though transfer pricing analysis is intensely fact dependent, the Poland branch report did make some useful observations on how normal transfer pricing principles would apply in some of the case studies. In the Data Broker case study, if Website Co. and Data Broker Co. were related parties, Website Co. likely would be regarded as the tested party, with a cost plus method as the most reliable transfer pricing method. The report noted the reasons for that conclusion as follows:

Key assumptions and pricing method determination factors are: the key value driver is the data analytics software developed by Broker Co and that the big data collected by Website Co is rapidly losing its value for the Customers, depending on the nature of the big data collected. Also, the GDPR should be taken into account, limiting the time and scope of data usability.

Under the same logic, focusing just on the creation of the valuable data feed in the Data Feeds case, Information Site Co. could be the tested party, as it has no involvement in the software and algorithms which create the animal migration data feed. Animal Data Co. in that case is the enterprise that not only collected the data, but processes it to create a feed that is useful for Information Site Co. to display. On the other hand, Information Site Co. may have developed an extensive viewer base, and will bring that intangible element to the table for purposes of transfer pricing analysis.

The Poland branch report also analyzes the Performance Analytics case, pointing out that in an affiliated group, the delineation of the value adding components of data may not be easily separated and valued:

⁴⁰ TPG, para 6.186 et seq.

⁴¹ TPG, para 6.199 and 6.200.

Both Equipment Co and Service Co give access to the other party to big data – Equipment Co shares their client database with Service Co, whereas Service Co may share the data with Equipment Co from sensors and data analytics tools for analysis of the raw data from the sensors installed in the equipment. Both sides benefit from the big data selected from the sensors – Service Co optimizes their costs of providing the services, whereas Equipment Co is able to improve their products. Depending on how other transactions between Equipment Co and Service Co are set (if any), and the mutual benefits from the big data extracted from the sensors, there might be a transaction set between the two parties. There are, however, too many variables to determine the most appropriate method based on the background set in the case.

5.5. Data Specific Taxes - DSTs and the Significant Economic Presence PE

5.5.1. DST

The most high profile special regime designed to apply to some (but only some) of the big data transactions described in the case studies is the digital services tax (DST), as originally proposed by the European Commission for introduction as an EU Directive. Several reports noted the fact that a DST or similar tax (like the Equalisation Levy in India) had been introduced or was under consideration in that jurisdiction.

In the form originally proposed by the European Commission, the DST would apply a 3% tax on gross revenue derived by groups exceeding certain revenue thresholds for three specifically defined categories of transactions. The policy basis for specifying those three categories of transactions was to isolate those commercial transactions characterized by “user value creation”. As explained by the Commission, the proposed tax rests on the proposition that “the input obtained by a business from users ... actually constitutes the creation of value for the company.”⁴² The explanation posits that this requires a new taxation right because: (i) current tax rules do not create jurisdiction to tax based on this value creation theory; and (ii) even if a permanent establishment is found and tax jurisdiction exists over an enterprise with such a business model, the value created by user participation is not taken into account when profits are allocated to the PE and taxed.⁴³ The stated justification for the tax is that there is a gap between the place where profits are taxed and the place where value is created.

The original proposal stated that the revenues resulting from the provision of each of the following services by an entity qualify as “taxable revenues” for the purposes of the Directive:⁴⁴

- (a) the placing on a digital interface of advertising targeted at users of that interface;
- (b) the making available to users of a multi-sided digital interface which allows users to find other users and to interact with them, and which may also facilitate the provision of underlying supplies of goods or services directly between users;

⁴² European Commission, *Proposal on the Common system of a digital services tax on revenues resulting from the provision of certain digital services*, COM (2018) 148 final, 21 March 2018, 2. Documents relating to the EC Directives on digital taxation can be found here: https://ec.europa.eu/taxation_customs/business/Company-tax/fair-taxation-digital-economy_en.

⁴³ *Id.*

⁴⁴ DST Proposal, 24.

- (c) the transmission of data collected about users and generated from users' activities on digital interfaces.

In large part, the DST seeks to tax certain transactions which capitalize on big data technologies. The first category is based on the assumption that the advertising service provider aggregates and organizes data in order to target digital advertising. The third category describes data transfer transactions. The second category, relating to multi-sided user interfaces, is focused more on digitally enabled businesses which are able to provide certain intermediation services that enable commercial transactions across borders, but the utility of those intermediation services frequently is enhanced through the application of big data technologies.

The Commission's explanatory materials regarding revenues arising from the transmission of data expressly exclude from its scope data generated by sensors or other means, and only include data generated from users' activities on digital interfaces.⁴⁵ That distinction would seem to exclude all data gathered through "internet of things" devices, such as sensors installed in automobiles. As a matter of tax policy, it is hard to see material distinctions among data commercialization models based on the collection mechanism.

Several branch reports note that the jurisdiction has either introduced a DST (France, Italy, Spain, Turkey) or at some point had the tax under active consideration (Czech Republic). In these cases, the tax has been modeled on the original EC proposal, although with some national variants. The Turkish DST, for example, encompasses a notably wider scope of transactions than the (e.g.) French DST. The Equalisation Levy ("EL") in India, as recently expanded in 2020, also applies to a notably broader scope of transactions than the DST. In the case of the Indian EL, the scope is not defined by reference to three specified types of commercial transactions, but by more general references to transactions conducted through internet communications.

Of the four case studies, the DST is of most direct relevance for the data broker case study, as in that case an enterprise operating a website sells access to data generated from user traffic on the website. That data is transferred to Broker Co. which creates its own structured data sets, and then Broker Co. sells copies of customized data sets to customers. It would seem that both transactions could be considered a "transmission of data" collected about users.

The data feed supplied by Animal Data Co. relates to data about animal behavior, and thus presumably would be out of scope on the basis that the data transferred to Information Site Co. deals with animals, not users on an interface. In the variation where Animal Data Co. is an NGO, however, Information Site Co. expressly transfers personally identifiable information about visitors to its site which the NGO then uses to target solicitations to support Animal Data Co.'s wildlife prevention activity. That transaction would seem to raise interesting issues involving both the DST and the application of barter concepts; if Information Site Co. is regarded as a digital interface, its collection and transfer of information about its users could fall within the category of user data transmission for DST purposes. If so, the question arises whether the provision of the data feed on animal migration which Animal Data Co. provides to Information Site Co. in exchange for that personally identifiable information could be regarded under barter principles as a payment for the user data and therefore be subject to DST.

⁴⁵ DST Proposal, 18, para. 12.

The case studies regarding performance data analytics and analytics based consultancies both describe situations where a significant part of the value of the business derives from the acquisition and structuring of data regarding activity and even personal characteristics of individual users. Nevertheless, at least the performance based analytics case falls outside the three defined transactions subject to DST on the basis that the data was collected by sensors. The analytics based consultancy case facts noted that the data was collected from many sources, so it is unclear whether some part of its acquired data could be regarded as generated through user activity on a digital interface. Further, while the consultant enterprise allows third parties to access its database for a fee, merely allowing access would not seem to constitute the “transmission” of data to bring that fee within scope of DST.

The DST, by its nature, applies unique principles in substitution for the traditional character, nexus, source, net income, and profit allocation concepts. In scope revenues are defined according to a type of business activity, not according to a classification of an item of income. Nexus thresholds are replaced by the concept that the location of users of a digital interface give the state the right to tax. The number of users in the country generally acts as the source determinant through an allocation of in scope revenue to the jurisdiction based on relative presence of users accessing a site. There is an asserted connection to the concept of value creation, in that one element of the policy argument justifying a DST is that enterprises create value through the interaction by users with the platform. There is no element of a net income or transfer pricing analysis which would assess the amount of such value creation, however, as the tax is a flat percentage of revenue, without regard to what actual value might be generated through user engagement.

The European national DSTs enacted to date have generally followed the EC model in terms of their definition of data transfer transactions that would be in scope of the tax. The France branch report, for example, provides a detailed description of the terms of the French DST.⁴⁶ The Czech Republic branch report describes some of the policy reasons for imposing a DST, and also notes some of the practical implementation challenges, such as possible inaccuracies created in relying on IP addresses to determine user location.⁴⁷

The Italy branch report illustrates the complexities which can arise in applying the “transmission of data” category to transactions in the “big data” ecosystem. With reference to the first case study dealing with Broker Co., the Italian report noted that it would need to be carefully examined whether the source of the data constituted a “digital interface”. Accordingly, if the data collected through Website Co. did not constitute data from users of a digital interface, then neither the payment by Broker Co. to Website Co. nor the payment by customers to Broker Co. would be subject to DST. On the other hand, if the source of the data, i.e. Website Co., constituted a social media website, the transfer by that social media website operator would be subject to the DST, but in that case the onward transfer by Broker Co. would be outside the scope of the Italian DST.⁴⁸

Of the countries with an enacted or proposed DST discussed in their reports, the Spanish branch report contains the most detailed analysis of the “transmission of data” category of in-scope transactions. The report points out that the tax seems to be focused on the transfer of raw data, while the higher value transactions in the “big data” ecosystem relate

⁴⁶ The French DST was the first to be enacted, effective 1 January 2019.

⁴⁷ At the moment, the Czech parliament has suspended its review of a possible DST.

⁴⁸ Not all DST statutes have an exemption to exclude double taxation on subsequent transfers.

to commercial exploitation of aggregated, structured and processed data. To that point, the Spanish report comments:

[For the DST,] the taxable event is the transfer of data collected, once that they have been generated by the users' activities on digital interfaces. There is a potential problem with the wording, as it is intended to cover only the transmission of user data, i.e. raw data. These data are often of scarce value if compared to the ones available after refining processes. Consequently, the most lucrative options (e.g. the analysis and exploitation, or obtaining any conclusions drawn from those data) are excluded. The new tax does not impose a levy on the real economic benefit arising from the exploitation of refined data.

The Spanish report also contains a description of some of the political issues which have affected the timing of the introduction of the DST in Spain, along with some of the technical issues created by this unique tax, such as the issue whether this tax is compatible with Spain's double tax conventions.

The Turkish DST applies to a wider scope of digital services, including audio, visual or digital content streaming services. At 7.5%, its rate is the highest of any of the enacted DSTs, and includes the unique enforcement mechanism that a digital service provider which does not comply with its DST obligations can suffer the sanction of having access to its site blocked in Turkey.

The Equalisation Levy in India was the first DST-type tax to be focused on digital services transactions. The original EL was brought into law in the Finance Act 2016, and imposed a 6% tax on payments for online advertisements. The Finance Act 2020 considerably expanded the scope of the EL effective 1 April 2020. As described in the Indian report, the transactions subject to the expanded EL are as follows:

The expanded levy is @ 2% of the consideration received or receivable by an e-commerce operator from e-commerce supply of goods or services made or provided or facilitated by it to an Indian resident, or to a nonresident in specified circumstances, or to a person who buys such goods or services or both using IP address located in India.

In a recent development, the Finance Act 2021 amended the EL to expand coverage to include any transaction if any of the following takes place on-line: (i) acceptance of offer for sale; (ii) placing the purchase order; (iii) acceptance of the purchase order; (iv) payment of consideration; or (v) supply of goods or provision of services, partly or wholly.

These amendments will take effect retrospectively from 1 April 2020, i.e. the date from which the original provisions were introduced.

Due to the extremely broad scope of the expanded EL, it is not surprising to note that many of the transactions described in the case studies would be subject to the EL. In the first reference case study involving the data broker, the Indian report noted that the EL apparently could apply in that case study to a payment by Broker Co. to Website Co. for access to data derived from Indian users (even if both Broker Co. and Website Co. are nonresidents of India), as well as to payments by Indian persons to Broker Co.:

As regards Equalisation Levy, the same is to be paid on consideration received or receivable by an e-commerce operator from e-commerce supply of services made or provided or facilitated by it, inter alia, to a nonresident in the specified circumstances. These circumstances include sale of data collected from a person who is resident in

India or from a person who uses internet protocol address located in India. If there is a customer resident in India who is buying data from B [defined as an Indian nonresident which acquired data from Website Co.], one would assume that the said data is in the nature of data collected from Indian residents, or from a person who uses internet protocol address located in India. On that basis, if the total payment for the same exceeds the threshold of INR 20 million, equalization levy @ 2% would be payable.

The Indian report also referred to theories under domestic law that customized data should be treated as computer software. If so, and if the payment is regarded as a royalty, then payments by customers to the data broker would be subject to the higher withholding tax on royalties for software as opposed to the lower 2% EL. Regarding that theory, the Indian report noted the recent decision of the Indian Supreme Court in *Engineering Analysis Centre of Excellence Pvt. Limited v. CIT*.⁴⁹ In that case, decided 2 March 2021, the Court held that payments for licensing and distributing computer software are not subject to tax as royalties in India under India's various tax treaties unless an interest in one or more of the rights contained in section 14(b) of the Indian Copyright Act were transferred in the transaction. Under that decision, it would seem that transfers of data such as those in the case studies would not be subject to withholding tax under a copyright theory. Even if that decision were to apply to a payment to the data broker by the customer, however, presumably the EL still could apply to that transaction if the data was transferred in digital form, or the transaction otherwise fits within the scope of the EL. The Income tax Department has filed a review petition before the Supreme Court in the *Engineering Analysis* case, so the final chapter on the characterization of payments for software in India may not yet have been written.

With respect to the information supplied by Animal Data Co. to Information Site Co., the payment would be subject to EL if Information Site Co. were a resident of India, but not if it were a nonresident. While the EL can apply in certain circumstances to payments between two nonresidents, in particular payments for the provision of advertising services targeting Indian users, or users with Indian IP addresses, those circumstances do not exist in this case.

The analysis of all four case studies is made more complex in the case of India since India also imposes tax at source on fees for technical services and for the provision of know-how. As alluded to in the reference above to the litigation over the characterization of software payments, Indian tax authorities also take an expansive view of what payments related to software can be taxed at source as copyright royalties. The Indian report analyses each of the possible bases to impose tax at source in the context of the reference case studies, along with the possible application of the EL where any payment by an Indian customer falls outside the scope of the other charging provisions.

5.5.2. Significant Economic Presence PE

Proposals to create a new nexus for an in-country "significant digital presence" or a "significant economic presence" also have a policy foundation in part as an effort to tax big data transactions as commercialized through cross-border remote sales. The proposed EC Directive regarding the DST was intended to be a temporary first step in advance of a Directive establishing a "significant digital presence" nexus threshold in the EU. Of the

⁴⁹ Civil Appeal No. 8733 of 2018; Civil Appeal No. 8734 of 2018.

branch reporters responding to this topic, only India and Italy reported an actual enactment of such a standard (the Italian standard was effective from 2018 and the Indian one from 1 April 2020). The branch reports do not, however, address the question of how income would be attributed to those deemed PEs.

The concept of deemed a PE through a “significant economic presence” as enacted by India has a significant component which focuses on transactions in data. In summary, the new law expands the concept of “business connection” under Indian domestic law by inserting the following “Explanation” to cause the nonresident to have an Indian tax nexus if the nonresident supplies certain services:

Explanation 2A.—For the removal of doubts, it is hereby declared that the significant economic presence of a non-resident in India shall constitute “business connection” in India and “significant economic presence” for this purpose, shall mean—

(a) transaction in respect of any goods, services or property carried out by a non-resident with any person in India including provision of download of data or software in India, if the aggregate of payments arising from such transaction or transactions during the previous year exceeds such amount as may be prescribed;

The Explanation also causes a business connection to arise if the nonresident engages in sufficient solicitation or engages in interactions with sufficient users in India. Further, the law notes that several types of income involving the commercialization of data are expressly included as income attributable to the SEP PE:

Explanation 3A.—*For the removal of doubts, it is hereby declared that the income attributable to the operations carried out in India, as referred to in Explanation 1, shall include income from—*

- (i) such advertisement which targets a customer who resides in India or a customer who accesses the advertisement through internet protocol address located in India;*
- (ii) sale of data collected from a person who resides in India or from a person who uses internet protocol address located in India; and*
- (iii) sale of goods or services using data collected from a person who resides in India or from a person who uses internet protocol address located in India.*

The India branch reporters point out that this tax will have considerable extraterritorial effect. Income attributable to the SEP PE includes income from targeted advertisements and sale of data even though the actual business activities may have happened outside India. The reference to data apparently is intended to include all data, whether raw, aggregated or analyzed. Prior to this expansion of the “business connection” concept, only income which could be attributed to operations carried out in India was deemed to accrue or arise in India.

This expansion of the business connection rule creates domestic tax liability expressly tied to data of Indian residents, or from persons using an Indian IP address. Even transactions between two non-residents that fall in these categories will be attributed to the SEP PE. The general reporter notes that applying these rules to transactions between two non-Indian parties could create some unexpected extraterritorial claims of tax nexus.

As part of domestic taxing provisions, the SEP PE could not be asserted against a supplier resident in a treaty country unless the treaty had been amended to allow the tax.

5.6. Barter

A number of the branch reports addressed the challenging question of whether barter principles should apply to big data transactions of the sort described in the representative case studies. Several branch reports indicated that a barter theory of income and expense recognition might in principle apply,⁵⁰ in particular for VAT purposes, but only the German report noted a case raising this theory in practice. Many branch reports commented on the perhaps practical impossibility of administering this theory, especially where individuals were involved on one end of the transaction.

The Data Feed case study raises the issue of a possible barter transaction between two businesses. In that case study, Animal Data Co., as an NGO, agreed to provide a data feed showing animal migration patterns to Information Site Co., in exchange for Information Site Co. linking to Animal Data Co. on its site and providing user e-mail addresses and profiles to Animal Site Co., which the latter enterprise then uses to solicit contributions.

The issue of applying barter treatment to data transactions apparently first arose in Germany in the VAT context. The German report notes that two members of the tax administration, acting in their individual capacities, published two articles in 2015 claiming that advertising business models such as internet search engines and social media platforms are not free of charge for the users but, rather, are based on barter transactions between the platform operator and their users. That view of the transaction led to the conclusion that the provider had made a taxable supply of services within the meaning of the VAT law, and the tax base should be determined by looking at the expenses the platform operator incurs for obtaining consent from each user (referred to as “subjective value”).

This issue also has appeared in court litigation in Germany, but there has been no clear resolution on the merits. The German report describes the litigation as follows:

The same argument was put forward by the local tax office in a recent court case which was decided by the Federal Tax Court on 16 January 2020.⁵¹ However, the court was able to dodge the contested barter issue based on the specific facts of the case. The court analyzed the taxpayer’s terms of service and found that even though obtaining user data clearly was one of the taxpayer’s motives for offering the services, there was no language in the terms of service that would have created a contractual link between a user’s permission to use the data and the supply of services by the taxpayer to this user. The lack of specific contractual provisions on personal data can be explained by the fact that the case dates back to 2008 when businesses used much simpler terms of service and did not have to comply with the GDPR. Today’s environment is entirely different, also taking into account that supply of services to a consumer is treated as a barter transaction under private law if the consumer has to consent to the processing of his data if he wants to receive the service “for free”. It remains to be seen how the tax courts will decide similar cases that involve more up-to-date terms of service. Finally, it should be mentioned that the German Ministry of Finance also submitted several questions to the EU VAT Committee under article 398 VAT Directive aiming to clarify the application of the VAT Directive to possible barter transactions between platform operators and internet users. While the EU VAT Committee laid down some useful guidelines on 3

⁵⁰ See, for example, the Japan branch report.

⁵¹ BFH, DStR 2020, 713.

November 2018, the German tax authorities do not feel bound by these guidelines as the EU VAT Committee has a strictly advisory function.

The German reporter expects that there will be more litigation in the future on this issue, and that the controversy likely will ultimately come before the European Court of Justice (CJEU).

The Netherlands branch report provides some more detail on guidance on this issue at the EU level:

The EU Value Added Tax (“VAT”) Committee unanimously agreed that there is no taxable transaction for VAT purposes when internet services are provided in exchange of user data, without requesting monetary consideration, as long as those services are offered under the same conditions to all users of the internet, irrespective of the quantity and quality of the personal data they provide individually, in such a way that no direct link can be established between the services provided and the consideration in the form of personal data received.⁵²

The current state of this issue, therefore, seems to be that in principle a VAT obligation might arise, but only if there is a direct link between a supply and the consideration, which implies an agreed reciprocal performance based on a legal relationship, and the consideration must be capable of being expressed in money terms. It would seem that in cases under GDPR or similar regulations, a user who declines to share certain information yet still receives the service, an argument exists that no such contractual link between the supply and the consideration exists. In any event, the requirement that a monetary value be set on the value of the service received will be extremely challenging.

The fact that the valuation issue may be challenging, however, may not put this issue to rest in the case of data transfers. In a case decided after the VAT Committee guidelines were issued, the CJEU addressed a case in which a demolition company, in addition to receiving monetary payments from its client for carrying out demolition works, acquired, pursuant to the demolition contract, recyclable scrap metal that it could then sell to third parties.⁵³ The Court concluded that the taxable base of the supply of demolition services must include both the price actually paid and “the value attributed by the service provider to the recyclable scrap metal, as reflected in the amount of the reduction of the price charged for the supply of services.” Importantly for the data exchange context, the Court addressed the value of the scrap metal from the perspective of the service provider (i.e. the enterprise collecting the data) and not from the party asking for demolition (i.e. the user). The CJEU also noted that “any technical difficulties which exist in determining the amount of the consideration cannot by themselves justify the conclusion that no consideration exists”.

There are some obvious distinctions between this case and the case of data transfers, in particular on the basis that data is non-rivalrous, i.e. that a person may acquire or consume the data without precluding others from possessing or consuming that same data. In contrast, the scrap metal in the CJEU case mentioned above may be a commodity, but no two persons could own the same piece of scrap metal. That said, the question of whether

⁵² VAT Committee Guidelines of the 111th meeting of 30 November 2018, Document B – taxud.c.1(2019)3722302 – 967.

⁵³ A Oy (Judgment of 10 January 2019, A Oy, C-410/17, ECLI:EU:C:2019:12).

a “direct link” between the service provided and the data received may remain a topic for future controversy, especially if the immense challenges of setting an appropriate value are given little weight.

The Austria branch reporter notes that an “intensive academic discussion” is underway in Austria on this issue. Those who oppose recognizing a taxable supply for VAT purposes argue that from the user’s perspective, the user does not regard the transmission of data as in exchange for a service. From that perspective, taxation of this transaction would conflict with the purpose of the VAT to be a general consumption tax. The opponents also note that analogous business models such as loyalty programs do not trigger VAT consequences.

The issue of indirect tax being imposed on a barter exchange involving data is not limited to the European reporters. The branch reporters in Canada, Chinese Taipei and Mauritius all concluded that indirect tax could apply to the exchange of animal migration data for user data in the Data Feeds case study. The Canadian reporter expressly notes that in the Data Feed case, there are two distinct supplies of data between the parties but in opposite directions, so that both parties to that transaction could be required to collect and remit GST/HST.

The concept of a barter exchange exists not only in the VAT law, but also for income tax purposes generally. In the case described above where individual users exchange data for “free” services, the natural consequence of applying a barter theory for income tax purposes is that the individual user must recognize income in the value of the services received. For that reason, it can be safely assumed that popular satisfaction with free internet services will constrain tax administrations from pursuing the barter exchange theory for individual income tax purposes.

A few branch reports discussed the possible application of the barter theory for income tax purposes between taxable parties. The India branch report, in addressing the Animal Data Co. case, concluded that if Animal Data Co. supplies the information on animal migration not for a fee, but in exchange for information on visitors visiting the Information Site Co. website, that exchange will result in income imputation as a payment in kind. Further, it will be subject to transfer pricing review if the parties are associated enterprises. From a different perspective, the Uruguay branch report noted the extreme complexity that would arise in valuing data transfers in relationships such as the Data Feed case. The German report notes that the Federal Ministry of Finance recently circulated draft regulations on the income tax treatment of cryptocurrency transactions in which it seemed to take the position that the provision of personal data by an individual taxpayer in exchange for virtual currency tokens is a barter transaction that may give rise to taxable income in the amount of the fair market value of the tokens. In that case, however, one side of the transaction presumably can be valued, reducing the uncertainty noted by the Uruguayan reporter.

Given that in transactions between taxable persons, a deemed income recognition on a barter transaction would be followed at some point with an expense deduction, either an operating expense or a cost of goods sold deduction, there seems to be little practical purpose for a tax administration to pursue the barter theory between business entities. A different case may arise in jurisdictions which classify the data transaction as the acquisition of a license to use an intangible asset, as in that case the imputed value of the consideration could be subject to withholding tax.

In the big data ecosystem, one can expect that numerous examples exist where data exchanges are common. The Belgian reporter noted that uncompensated (at least not compensated with money) data exchanges might exist in the Performance Data Analytics

case, as Service Co. and Equipment Co. exchange data with each other to improve the performance of their particular business activities. As the Austrian reporter noted, this issue has inspired an intense “academic” discussion, probably in no small part because the issue is intrinsically interesting to academics. From a practical perspective, however, there would seem to be little benefit to efficient tax administration to apply this theory to the myriad instances of uncompensated data transmission in the data enabled economy. One hopes that this does not become an area of controversy in the future.

5.7. Special Incentive Regimes

Many branch reports described special regimes related to investment incentives which in principle are available to “big data” enterprises, in particular R&D credit or deduction allowances, and patent or innovation boxes. These incentives are available in a remarkable number of jurisdictions contributing branch reports, which shows the persistence of national efforts to provide a tax benefit for home grown innovators and well as to provide an incentive for foreign groups to locate innovative activity in the jurisdiction.

In general, there is no inherent barrier for big data enterprises to qualify for the various incentives. The issue in most cases is whether the definition of the activity covered by the incentive encompasses the software development or other innovative work necessary to create or deliver the product or service offered by the taxpayer. In many cases, the incentives are fairly narrowly tailored to particular types of activity, raising questions as to what part of the R&D investment would be eligible.

As an example, a 150% deduction is allowed in Russia for R&D activities appearing on a list published by the government, which includes “development of technology of storing, providing and processing of information on computer systems.” Poland offers two incentives, an enhanced deduction of R&D activity and an innovation box which allows a 5% corporate income tax rate on qualified income derived from qualified rights. Private rulings have been issued confirming that some data processing activity has qualified for the enhanced deduction. The United States, in contrast, allows a credit for certain research or experimental expenditures. Innovative work to design and develop the software and algorithms to perform big data analytics would be the sort of activity that normally qualifies for the US R&D credit.

Given the variety of approaches and the different qualification standards in each country, an investor seeking the most attractive regime for their circumstances will need to read each of the branch reports.

6. Conclusion

The volume of cross-border “big data” transactions inevitably will increase. Creative entrepreneurs will continue to devise business models that may pose even greater challenges to apply the appropriate tax treatment to novel transactions than the four case studies presented here. At the moment, no reporting jurisdiction has noted a comprehensive domestic tax regime specifically designed to address big data transactions. While normal classification principles may be difficult to apply in some cases, the available tools and concepts dealing with transactions in copyrighted articles, IP rights and know-how transfers

provide a useful framework to analyze these transactions under domestic law.

Given the lack of existing domestic law precedent, however, the classification of data transfer transactions is an area that would benefit from international harmonization. For example, an analysis could be added to the OECD Model Convention commentary to article 12 to encourage uniform treatment and reduce controversies.⁵⁴

Transfer pricing analysis always depends on the facts and circumstances of the particular case, but the essential step in the functional analysis should be to assess the relative value creation arising from the development and application of the software and algorithms necessary to capture and structure the data in a way that creates the valuable data enabled offering. Overall, the principal effect of big data technologies will be to improve business efficiencies across the global economy, contributing to overall economic growth.

⁵⁴ Since the most common data transfer transactions presumably would be classified as business profits and not as royalties, the art. 7 commentary also would be a logical place to confirm that treatment. Given that the software commentary appears in the art. 12 commentary, however, the commentary on data transfer transactions also could be placed there, even though the main point of the commentary would be to confirm circumstances under which the transaction is not treated as a royalty.

Appendix general report Subject 2

Big data and tax – domestic and international taxation of data driven business

	Data Brokers/Information Resellers	
Country	Payment by Broker Co. to Website Co.	Payment by Customer to Broker Co.
Argentina	Provision of a service. Ordinary business income. Assessed if there is Argentinean source income. Unlikely to be considered a royalty. Not a capital transaction.	Provision of a service.
Australia	Ordinary business income. Unlikely to be considered a royalty. Not a capital transaction. Under OECD MTC, would likely be treated as Other Income: Art 21.	Ordinary business income. Unlikely to be considered a royalty or capital transaction. Under OECD MTC, would likely be treated as Other Income: Art 21.
Austria	Domestic: (ordinary) business income; DTC: business profits, possibly royalties under Art 12 UN MC.	Domestic: (ordinary) business income; DTC: business profits, possibly royalties under Art 12 UN MC.
Belgium	under domestic law: arguably 'professional income' (~service); under tax treaty usually business profits	under domestic law arguably 'movable income' (~royalties based on trade secret and/or database right) <i>*Except for withholding tax purposes, movable income is generally re-characterized in professional income if the underlying assets are used for the income recipient's professional activity.</i> ; under tax treaty arguably business profits
Brazil	Service Provision - depending on the structured database and analysis performed, the service might be configured as a technical service with withholding tax and CIDE taxation being levied (apart from PIS/COFINS, ISS and IOF - indirect and financial tax)	Service Provision - depending on the structured database and analysis performed, the service might be configured as a technical service with withholding tax and CIDE taxation being levied (apart from PIS/COFINS, ISS and IOF - indirect and financial tax)

	Data Feeds	
	Payment by Information Site Co. to Animal Data Co.	No cash consideration, but visitor information transferred
	Provision of a service. Ordinary business income. Assessed if there is Argentinean source income. Unlikely to be considered a royalty. Not a capital transaction.	Not applicable.
	Likely to be considered a royalty, although more information required. Not a capital transaction. Under OECD MTC, would likely be treated as a Royalty: Art 12.	Assuming Animal Data Co is a registered charity, any income (in money or in kind) will be exempt. Assuming Animal Data Co is not a registered charity, this is likely to be considered a barter transaction giving rise to taxable ordinary business income. Unlikely to be considered a royalty. Not a capital transaction. Under the OECD MTC, would likely be treated as Other Income: Art 21.
	Domestic: (ordinary) business income DTC: business profits, possibly royalties under Art 12 UN MC	Domestic: (ordinary) business income DTC: business profits, possibly royalties under Art 12 UN MC
	under domestic law 'movable income' (~royalties) <i>*Except for withholding tax purposes, movable income is generally re-characterized in professional income if the underlying assets are used for the income recipient's professional activity;</i> under tax treaties royalties (copyright)	not clear that taxable income arises; if so, arguably same treatment as for cash consideration
	Service Provision - the tax character of the transaction will not be affected because there is an automatization. The analysis performed by the software in a customized perspective and which results in the creation of value via data analysis, will continue to be considered as a service.	Service Provision - independently of Consultant Co commercialization models.

	Data Brokers/Information Resellers	
Country	Payment by Broker Co. to Website Co.	Payment by Customer to Broker Co.
Canada	The transaction could be viewed as a contractual arrangement (akin to a license agreement) pursuant to which Website Co. grants to Broker Co. certain limited rights to use its website infrastructure to gather website generated data. Depending on the level of activity involved, this could generate property income or business income under domestic law and for DTC purposes.	Depending on the nature of the rights granted and possessed by Broker Co. into such data sets, the transaction could be viewed as akin to the (perpetual) licensing of an intangible property. It may be that the provision of the data set could also qualify as the provision of a service if Broker Co. develops data analytics tools to better its services and perform specific work made to measure based on the Customer's specific requests. Depending on the nature and tailoring of the rights granted by Broker Co. to Customer, this could generate property income or business income under domestic law and for DTC purposes.
Chile	No guidance in Chile, most likely licence of an intangible asset.	No guidance in Chile, most likely provision of service given the relevance of the analytics applied.
Chinese Taipei	Although it should very depend on the forms of the transaction, the payment in relation to the data would be more likely to be deemed as royalty and in that case a 20% WHT would be levied as default, which could be further reduced by the applicable tax treaty provided that the payment is cross-border.	Although it should very depend on the forms of the transaction, the payment in relation to the data would be more likely to be deemed as royalty and in that case a 20% WHT would be levied as default, which could be further reduced by the applicable tax treaty provided that the payment is cross-border.
Colombia	The transaction between Broker Co. and Website Co. is considered a payment to a foreign entity as operating costs.	The transaction between Broker Co. and Website Co. is considered a payment to a foreign entity as operating costs.

Data Feeds	
Payment by Information Site Co. to Animal Data Co.	No cash consideration, but visitor information transferred
The transaction could be viewed as the licensing of the right to reproduce a data feed (which right may arguably be protected under the Copyright Act). It may be that the provision of the data feed could also qualify as the provision of a service if the data feed is highly customized and if the payment made by Information Site Co. to Animal Data Co. is made in consideration for the process by which the data feed is created and delivered. Depending on the level of activity involved, a royalty could be generating property income or business income under domestic law and for DTC purposes. A service fee would likely generate business income.	The fact that the consideration paid for the data feed is cash or something else (such as advertising) should not change the intrinsic nature of the transaction (i.e. a licensing or the provision of a service, depending on the surrounding circumstances).
No guidance in Chile, most likely licence of an intangible asset.	No guidance in Chile, most likely licence of an intangible asset.
Although it should very depend on the forms of the transaction, the payment in relation to the data would be more likely to be deemed as royalty and in that case a 20% WHT would be levied as default, which could be further reduced by the applicable tax treaty provided that the payment is cross-border.	The provision/exchange of data shall be deemed as sales of goods/service, and the revenue shall be the fair value of the personally identifiable data provided by the Chinese Taipei company, which is subject to a 20% CIT in Taiwan.
To determine the source of the payment, regardless of which of the two companies is domiciled in Colombia, we will consider that such payment is made within the country. For the income tax purposes of Information Site Co., this payment could be considered to establish the taxable base provided that it is directly related to the income obtained. In any case, a withholding tax must be applied to the payment made to Animal Data Co. in the event that the latter does not have a permanent establishment in Colombia; otherwise, the latter must declare the income tax, and the payment made by Information Site Co. is part of the taxable base as it constitutes ordinary income.	The exchange of information of both Animal Data Co. and Information Site Co. with the website's users is not subject to taxation. It is only necessary to specify that, in accordance with the regulations on personal data protection, Information Site Co. should guarantee that the owners of the information give their express authorization for the data to be processed.

GENERAL REPORT

	Data Brokers/Information Resellers	
Country	Payment by Broker Co. to Website Co.	Payment by Customer to Broker Co.
Czech Republic	Determination according to a concrete real nature of the transaction: License/royalty or the provision of a service.	Determination according to a concrete real nature of the transaction: License/royalty or the provision of a service.
Denmark	Under domestic law: Ordinary business income; Under tax treaty: Usually business profits.	Under domestic law: Ordinary business income; Under tax treaty: Usually business profit, possibly royalties (based on database right).
Finland	Likely business income.	Likely business income.
France	The “transfer of data” by Website Co to Broker Co should be considered as a provision of services and not a sale of goods.	It is unclear : – if the service does not meet the specific needs of each customer customers (the original structured data sets themselves are not transferred) and Broker Co sells only copies to different customers, the “transfer of data” sets could be considered as a provision of services (i.e., access to the data). – if Broker Co had transferred specific data structured in accordance with needs of a specific customer, the transfer of those structured data could have been considered as a sale of goods, from a legal standpoint, and treated as such for tax purposes.
Germany	Business profits (services).	Business profits (services).
India	Royalty under domestic law. Under the treaty it would be royalty if it involves transfer of interest in any of rights under Indian copyrights Act. Not covered as Fees for Technical Services. May trigger business connection in case engaged in systematic and continuous soliciting of business activities or engaging in interaction with such number of users in India. Exposure also to Equalisation Levy, if not taxed as royalty.	Royalty under domestic law. Under the treaty it would be royalty if it involves transfer of interest in any of rights under Indian copyrights Act. Not covered as Fees for Technical Services. If data collected from Indian resident or from person using Indian IP address, would give rise to Significant Economic Presence and hence business connection under domestic law. Exposure also to Equalisation Levy, if not taxed as royalty.

Data Feeds	
Payment by Information Site Co. to Animal Data Co.	No cash consideration, but visitor information transferred
Determination according to a concrete real nature of the transaction: License/royalty or the provision of a service.	No taxes if no money-valued consideration.
Under domestic law: Ordinary business income; Under tax treaty: Usually business profits.	Not clear that taxable income arises; if so, arguably same treatment as for cash consideration; Under domestic law: Ordinary business income; Under tax treaty: Usually business profits.
Likely business income.	No taxable income arises.
The “transfer of data” by Animal Data Co to Information Site Co should be considered as a provision of service.	For the time being, this characterization is irrelevant from a French tax law standpoint because the French tax authorities have not attempted to consider the exchange of data for free services as a barter transaction.
Not clear, tax authorities may characterize payments as royalty income (right to publicly display major parts of protected database).	Income tax: not clear; VAT: taxable barter transaction.
There are two possible views. If it involves transfer of interest in any of the rights under Indian copyrights Act, It can be royalty. It is not FTS. Equalisation Levy attracted if Information Supply Co is resident in India, not otherwise	Income will need to be imputed on the barter transaction as a payment in kind. If the parties are Associated Enterprises, income will need to be demonstrated to be at arm's length

GENERAL REPORT

	Data Brokers/Information Resellers	
Country	Payment by Broker Co. to Website Co.	Payment by Customer to Broker Co.
Italy	Provision of a service giving rise to business profit	Provision of a service giving rise to business profit
Japan	No conclusion in the report.	Royalty (if it is paid for the use of data that is treated as a kind of work under the Copyright Law), not Capital Gains (given that it is difficult to presume a complete transfer of ownership of big data), or Business Profit (if Broker Co. has a PE and the income is attributable to it)
Korea, Republic of	Business profits (Income tax or Corporate tax) + VAT	Business profits (Income tax or Corporate tax) + VAT
Liechtenstein	Business profits (as it is a service fee) --> Income tax or Corporate tax + VAT	Business profits (as it is a service fee) --> Income tax or Corporate tax + VAT
Luxembourg	Business income since it involves collection and access to raw data	Business income since it involves collection and access to raw data
Malaysia	—*	—*
Mauritius	It will depend on the contractual obligation between the parties. Given that it is a transfer of property, the nature of the transfer will determine the taxation.	When Broker Co. is selling the data to the customer, those data are already its property. If the payment is for a structured database, it will amount to property.
Mexico	Mexico lacks guidance as to how to characterize this transaction. However, our view is that the payment is more akin to consideration paid for a license of property.	Mexico lacks guidance as to how to characterize this transaction. However, our view is that the payment is more akin to consideration paid for the provision of services.
Netherlands	For (tax treaty) provisions dealing with royalties, this is likely business income and not a royalty.	For (tax treaty) provisions dealing with royalties, this is likely business income and not a royalty.

	Data Feeds	
	Payment by Information Site Co. to Animal Data Co.	No cash consideration, but visitor information transferred
	Provision of a service giving rise to business profit	Provision of a service giving rise to business profit, in kind transaction: barter treatment cannot be excluded, also in light of the fact that both data feeds and making space available on the website are commercial activities
	Royalty (if it is paid for the use of data that is treated as a kind of work under the Copyright Law)	No conclusion for corporate tax purposes in the report. However, any delivery of assets that does not involve a monetary payment but has some kind of counter-benefit, is subject to taxation under consumption tax law.
	Royalty income (right to publicly display major parts of protected database)	No taxes
	Business profits --> Income tax or Corporate tax + VAT; it is likely to be classified as royalty income	No taxes
	Royalty income to the extent it involves the developing and exploitation of an intangible and not merely an execution of a task requested by a third/ affiliated party	The character of the activity should in principle be the same.
	—*	—*
	There is no transfer of ownership rights at the end of every transaction.	Yes, only if the concerned party is registered for VAT. Further the barter exchange should also be able to quantify the value addition accruing to the individual, i.e., the open market value of such services to the individual.
	Mexico lacks guidance as to how to characterize this transaction. However, our view is that the payment could potentially be characterized as consideration for a license of property or the provision of services.	Mexico lacks guidance as to how to characterize this transaction. In our view, data should not be treated as property for tax purposes and thus, our view is that the characterization of a barter transaction where property is exchanged for a service is unlikely.
	For (tax treaty) provisions dealing with royalties, this is likely business income and not a royalty.	For (tax treaty) provisions dealing with royalties, this is likely business income and not a royalty.

	Data Brokers/Information Resellers	
Country	Payment by Broker Co. to Website Co.	Payment by Customer to Broker Co.
Norway	Transfer of data, recognized as ordinary business income for Website Co.	The payment should not be considered a royalty, and would likely be considered ordinary business income.
Peru	Provision of a service.	Provision of a service.
Poland	Likely a service payment.	Likely a service payment, but other classifications cannot be excluded.
Portugal	Provision of a service.	Provision of a service.
Russia	Most likely to be considered as a consideration paid for provision of a service (classification as royalty can't be excluded).	Most likely to be considered as a consideration paid for provision of a service (classification as royalty can't be excluded).
Singapore	This payment is possibly in the nature of ordinary service income and not royalties or technical service fees. Website Co may not have any copyrights in the raw data shared with Broker Co. The access to the raw data also does not involve any application or use scientific or technical knowledge.	This payment may also be viewed as ordinary service income and not royalties or technical service fees. Even if it is argued that Broker Co has some IP in the unique structure or manner of compiling data, the sale of customized data sets does not seem to involve any license of the IP. It also does not seem to involve the application or use any scientific or technical knowledge.
South Africa	No specific guidance issued by the South African government nor case studies or court cases to classify transactions of this nature for tax purposes.	No specific guidance issued by the South African government nor case studies or court cases to classify transactions of this nature for tax purposes.
Spain	Business profits (services)	Spanish DST and business profit
Sweden	An intangible protected by sui generis	Provision of a service

Data Feeds	
Payment by Information Site Co. to Animal Data Co.	No cash consideration, but visitor information transferred
Even though the payment may have characteristics of both business income and royalty, we assume that this will likely be treated as a royalty in Norway.	In principle, no royalty WHT would be levied in Norway under this arrangement. However, transferred information could in theory be characterized as royalty income to the extent it constitutes value for the recipient which is transferred in return for the copyright. However, since no payment is made, we assume no WHT should be "deemed" to arise in this case.
Provision of a service.	
Likely a service payment.	Classification not clear, potentially barter transaction (exchange of services).
Provision of a service.	Provision of a service. Potential barter transaction.
Most likely to be considered as a consideration paid for provision of a service (classification as royalty can't be excluded).	Not clear, however, likely considered as a barter transaction regarding the provision of a service.
It is possible that the payments may be viewed as royalty. This assumes that copyrights vest in the unique maps, predictions and outputs created through the data analytics tools. Information Site Co is not only getting access to live feed but also product of data analytics which are being used to provide services to the website visitors. It does not seem that Information Site Co is merely getting access to raw unstructured data. The conclusion may be different if the predictions are done by AI software which analyses data and makes predictions without any human involvement.	The characterization of income earned by Animal Data Co would not be impacted by payment of non-cash consideration by Information Site Co.
No specific guidance issued by the South African government nor case studies or court cases to classify transactions of this nature for tax purposes.	No specific guidance issued by the South African government nor case studies or court cases to classify transactions of this nature for tax purposes.
Business profits	Unclear. It could be a provision of a service, but not Spanish DST
Provision of a service	Provision of a service, that will be taxed, if the NGO as such is not tax exempt.

GENERAL REPORT

	Data Brokers/Information Resellers	
Country	Payment by Broker Co. to Website Co.	Payment by Customer to Broker Co.
Switzerland	Not clear from a tax treaty perspective (payment could be qualified as a licence fee or provision of services)	Not clear from a tax treaty perspective (payment could be qualified as a licence fee or provision of services)
Turkey	Provision of a service	There may be a 15 % WHT on payments made to the providers of online services. Depending upon the conditions of DTCs, there may not be a WHT on payments that are part of a commercial income, If Broker Co doesn't have a permanent establishment or representative in Turkey. If the income is part of a royalty income, there might be a reduced rate of WHT on payments. Meeting the required; these payments also may be subjected to DST.
United States	Likely payment for provision of services. License fee/royalty is possible too depending on the terms of the arrangement whereby Website Co. agrees to allow the use of APIs to provide access to user information.	Depending on the terms of the customer agreement, the payment could be qualified as consideration for services provided or a license fee. License characterization would be appropriate only if the arrangement indicated that Broker Co. had transferred or made available "intangibles" or "intangible property" or rights to same.
Uruguay	Likely to be considered as a license/ authorization to use	Service fee

* readers are referred to the Branch report for a detailed analysis.

	Data Feeds	
	Payment by Information Site Co. to Animal Data Co.	No cash consideration, but visitor information transferred
	Not clear from a tax treaty perspective (payment could be qualified as a licence fee or provision of services)	Not clear from a tax treaty perspective (payment could be qualified as a licence fee or provision of services in case the value of the proceeds can be determined)
	Likely to be considered a service.	For both parties (if Animal Data Co is an NGO, in this case, part of its presumed commercial enterprise), the value of the transaction must be determined and accepted as income. Calculating the tax base may be difficult.
	Likely payment for provision of services (assuming the digital information is hosted by Animal Data Co., and is not transferred to Information Site Co).	US tax does not have a uniform approach to addressing a supply without consideration. This could be a barter transaction (animal migration data in exchange for advertising services and/or customer information). There may be sales and use tax consequences under state law.
	Likely to be considered a service	Barter transaction regarding the provision of a service

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Summary and conclusions

In recent years Argentina has taken a step forward in taxing the digital economy, especially by taxing digital services under sales-related taxes such as VAT and turnover tax. It is still not clear what will happen when the courts evaluate the constitutionality of using the turnover tax in this manner.

Argentina has not adopted substantial modifications to the income tax for the digital economy, and it appears to be waiting for the final outcome of discussions that are already underway at a supranational level. Today, foreign beneficiaries furnishing digital services from abroad to resident recipients do not generate taxable Argentine-source income unless they provide those services through a PE in Argentina or the digital services involve the furnishing of technical or another kind of assistance. In terms of streaming services rendered by foreign beneficiaries from abroad, a recent amendment to an old provision within the ITL could be construed as establishing that part of the income obtained from streaming services is from an Argentine source if the services are exploited in Argentina, but that position has not been advanced by the tax authorities so far.

Thus, as a general principle, the furnishing of digital services by foreign beneficiaries does not involve income derived from an Argentine source, and thus income tax is not triggered. However, exceptions to this general principle exist and may include cases involving:

- the existence of a PE in Argentina;
- the transmission or broadcast of images and sound through streaming platforms; and
- the provision of digital services involving the furnishing of technical assistance.

In a recent ruling, the Argentine tax authority (Administración Federal de Ingresos Públicos, or AFIP) concluded that online advertising services rendered by foreign beneficiaries from abroad are not subject to income tax. The AFIP found that the income derived from the services was foreign source because it did not involve technical or other assistance, and there were no servers in Argentina. We believe that the existence of servers in Argentina does not necessarily mean that services are rendered in Argentina, but it is not clear if the tax authorities would agree. The AFIP might find that the existence of servers in Argentina means that the service is rendered in Argentina and gives rise to Argentine-source income.

In another ruling, the tax authorities concluded that cloud computing services do not derive Argentine-source income. The AFIP asserted that those services did not involve the

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² Manager at Deloitte Argentina. MSC in Economics (UPF), MSC in Finance (UCEMA) and in International Tax (UBA).

transmission of intangible property or goods and no technical or other kind of assistance was provided.

PAIS is also levied on digital services, but it will only be in force temporarily.

Therefore, the furnishing of digital services to Argentine residents is subject to a total tax burden in Argentina of 31 percent – that is, 21 percent of VAT, 8 percent of PAIS, and 2 percent of turnover tax.

Introduction: Legal background

There is not a “data property statute” providing property right in data *per se*. However, when data has been aggregated in a database, its unauthorized reproduction by third parties has different legal sources of protection, which may accumulate or be exclusive.³

Copyright

The Copyright Law 11.723 does not provide with copyright protection in data. The copyright protection covers the expression of mathematical ideas, procedures, methods of operation and concepts but does not protect those ideas, procedures, methods and concepts themselves.

The Copyright Law 11.723 did not originally include databases in its scope, therefore excluding software and databases from the definition of “protected works”. However, in 1994 decree 165/94 afforded protection to “database works”, which were included within the category of literary works and defined as “productions consisting of an organized set of interrelated data, compiled for storage, processing and retrieval using computer techniques and systems” (article 1(b)). Decree 165/94 also established a registration process before the National Copyright Office.

In 1998, Law 25.036 amended the Copyright Law 11.723 to include in its scope computer programs and “compilations of data or of other materials”. Accordingly, the Copyright Law protects databases if the selection and composition of the information is new and implies a certain level of creativity and originality.⁴

For example, in a case in which a subscriber to an electronic database of laws and regulations for lawyers and accountants used the information obtained from the database to publish a fortnightly magazine, the Court of Appeals concluded that there was a contractual breach. The Court denied the protection of the Copyright Law 11.723 because in order to be original “not only the work of plain and simple data storage is required, but an imaginative effort of their own in their systematization”.⁵ It established that the copyright protection extended to the software itself, and not to the data embedded within it.

The decision was criticized on the grounds that the copyright protection is available even if the elements of the compilations are known and in the public domain. It has been asserted that “the creation of an electronic database, even when it contains public

³ Sánchez Herrero, Andrés, “¿Es desleal la copia de bases de datos?”, ED, 19 May 2010, 237.

⁴ Waisman, Agustín, “Las bases de datos en el derecho de autor argentino”, LA LEY 2009-A, 931.

⁵ “ERREPAR S.A. y otros c. Nahas, Juan”, Federal Court of Córdoba, 27/6/2001, JA 2003-I-480.

information, requires creative work that must be protected. The selection of information requires a previous research task, value judgments by those who have specific knowledge of the subject in question, establishing relationships between the different documents that make up the database and, finally, an investment of business resources tending to digitize the document and process it in a computer system (...) the definition of a database is one of the basic tasks in the design stage of a software program computing".⁶

Finally, the reproduction of isolated elements of the database does not constitute an infringement of the copyright of the owner of the database. If such an isolated element is by itself protected by the Copyright Law, its reproduction constitutes an infringement of the right of the owner of that work, but not the right of the owner of the database.⁷

Sui Generis Rights

There is no *sui generis* protection for collections of valuable data sets under Argentine law.⁸ Apart from the Copyright Law 11.723, Argentina does not provide copyright-like protections to the creator of valuable data sets by reason of the substantial investment in the collection, assembly, verification, organization or presentation of the data. In such a copyright-like protection, the criterion of originality of the Copyright Law is replaced by that of the substantial investment in the collection and processing of the data contained in the database.⁹

Argentina did not adopt legislation, such as the Directive 96/9/EC, which gives the maker of a database the option of preventing the unauthorized extraction and/or re-utilization of all or a substantial part of the contents of that database in order to ensure the protection of any investment in obtaining, verifying or presenting the contents of the database.

Trade secret / Confidential information

Some authors argue that the characterization of databases as species of literary works under the Copyright Law is problematic as a result of the difficulty to comply with the requirement of originality. According to others, the reproduction of a database, either in its entirety or in any of its elements, may constitute an act of unfair competition, specifically, an unfair imitation for improper use of the efforts of others.

For example, it has been argued that the reproduction of a database may constitute an act of unfair competition when three requirements are met: i) the imitation affords to the imitator a specific saving in his costs, almost without effort on his part; ii) the production costs of the owner of the database must be relevant; and iii) the imitation of the database implies for its owner a serious competitive disadvantage or seriously hinder him from amortizing his investment. Therefore, imitation cannot be considered unfair if

⁶ Luján de Pildain, Adriana M., "Protección jurídica de las bases de datos: una interpretación jurisprudencial inadecuada", JA 2003-I-480: See also, "Guía Práctica del Exportador e Importador, S.R.L. c/ Empresa I.A.R.A y otro", CNCIV., sala D, 30-4-1974, ED 56-344.

⁷ Sánchez Herrero, Andrés, n. 1.

⁸ See, Iannello, Pablo A., "El cambio de paradigma en la protección de la propiedad intelectual", RDCO 292, 597.

⁹ Kulik, Alejandro E., "Protección jurídica de los activos intangibles de las Fintech", RDCO 296, 20/06/2019, 613.

the owner has amortized his production costs, or, despite not having recovered them, had the opportunity to do so. If these three requirements are not met, the unfair competition regime does not protect the unauthorized reproduction of a database.¹⁰

Furthermore, the emergency decree 274/2019 established a new fair-trading regime which complements the provisions of the Antitrust Law 27.442. The emergency decree 274/2019 includes within the definition of “acts of unfair competition” the violation or disclosure of business secrets without authorization by the owner, in cases of lawful access, but with duty of reserve; or unlawful access (article 10, inc. j). It has been argued that the information generated through data processing deserves the protection of the unfair competition regulations to the extent that it contains efforts reasonable to be kept secret and has commercial value.¹¹

Contract law

Contract law may also protect the unauthorized reproduction of databases. There is a contractual breach if the person who reproduces the database has accessed it through a contract, which includes clauses that limit or prohibit the reproduction of the database or its elements. The breach of contract may accumulate with the infringement of the Copyright Law.

In a case where a former employee, who had signed a confidentiality agreement, used the information included in a database for his advantage, the Court held that such a conduct was in violation of the Confidentiality Law 24.766, entitling the owner to exercise civil actions aimed at prohibiting the use of undisclosed information and obtaining financial compensation for the damage suffered.¹²

¹⁰ Sánchez Herrero, n. 1.

¹¹ Iannello, Pablo A., “Competencia desleal, propiedad intelectual y nuevas tecnologías. El caso de las bases de datos y el big data”, Sup. Esp. Comp. Desleal. DNU 274/2019 2019 (agosto), 527. The author argues that “...confidential information and industrial secrets are adequate tools for the protection of the information generated by Commerce as Service. That is, if from a database could be obtained through big data systems consumption preference correlations independent of the information contained in the original database, this information may be considered confidential if the requirements of the standard are met and its appropriation may be an act of competition unfair”. Moreover, “...secrets are relevant to protect the data generated and compiled through ‘machine to machine process’. There are authors who suggest that the regulations on secrets are much more appropriate for this type of information given its flexibility. They even consider it more appropriate than a sui generis right database protection”.

¹² “Conferencias SRL c. D., N. C. y otros s/ daños y perjuicios”, National Court of First Instance in Civil Matters No. 64, 09/08/2013, LA LEY 2014-E, 382. Reaffirmed, National Court of Appeals in Civil Matters, room D, 19/06/2014, LA LEY 2014-E, 376. See, Palazzi, Pablo, “Sustracción de una base de datos por un empleado infiel: violación de secretos comerciales, competencia desleal e infracción a la propiedad intelectual”, El Derecho 259-4; Iannello, Pablo A. “Protección de bases de datos, propiedad intelectual y competencia desleal”, LA LEY 2014-E, 377, who argues that “from an economic point of view, protection through a confidentiality clause appears to be an efficient remedy since it allows to delimit with greater precision the risk the asset developer of the intangible is willing to run, as well as the value that she is willing to assign to such information”.

Regulatory restrictions

Since 2000, the Personal Data Protection Law 25.326 and the regulation decree 1558/2001 regulate the processing and protection of personal data included in files, records, or other means of storage, both public and private. As a result of the right to personal data protection established in article 43 of the National Constitution, the Personal Data Protection Law aims at the comprehensive protection of personal data recorded in files, registers, data banks, or other technical means intended to give reports in order to guarantee the right to honour the privacy of people, as well as access to the information that is recorded on them. The Agency for Access to Public Information (AAIP, decree 746/2017 and 899/2017), which replaced the National Directorate for the Protection of Personal Data, supervises the application of the regime.

Article 2 of Law 25.326 defines “data processing” as “systematic operations and procedures, electronic or not, that permit the collection, conservation, ordering, storage, modification, relationship, evaluation, blocking, destruction, and in general the processing of personal data, as well as its assignment to third parties through communications, consultations, interconnections or transfers”.

The processed data may not be used for purposes other than or incompatible with those for which it was obtained (article 4.3). On this basis, prior consent of the data owner is required when the data is intended to be used for another purpose (article 5).¹³ Accordingly, prior and informed consent of the data owner will be necessary for the development of

¹³ See, “Salvador, Claudio v. Citibank N.A.”, National Court of Appeals in Commercial Matters, room D, 22/11/2005. A bank sent to its clients a brochure (“privacy promise”) which described its privacy policy, in particular, that it would share their personal data with third parties unless they formulated an express opposition by means of a form sent by mail within a certain period of time. In the absence of a such opposition, the bank would assume the client’s consent for the sharing of the data. The Court shared the opinion of the Prosecutor, who had argued that “In this case, it is clear that the purpose or predetermined purpose, by virtue of which the bank’s clients authorized the use of their personal data, is the scope of the banking contractual relationship (...). Its use for a different purpose, such as the transfer to third parties for direct marketing purposes is alien to the purpose of its collection and requires the prior, express, unequivocal and informed consent of the client”. In addition, it was emphasised that “Our law 25.326 (...) follows the guidelines of directive 95/46/CE of the European Parliament and of the Council (EU), which is why the Commission of the European Communities considered that the Argentine Republic guarantees an adequate level of legal protection for the transfer of personal data from the Community (...) From this point of view, and considering that our data protection legislation follows the same guidelines as that of Spain and Italy, it should be borne in mind that the Spanish Data Protection Agency sanctioned a subsidiary of the Gas Natural Group for using data from the parent company, by sending its customers a personalized letter informing them that, if they do not express their opposition, the data will be transferred to other companies (...) Likewise, in Italy, the doctrine maintains that the consent of the owner of the data cannot be tacitly expressed or inferred from conclusive behaviours, for which reason no incidence has the silence, nor the inertia of the interested party or the tolerance of a treatment of the own data, which cannot be considered equivalent to consent...”. See, Palazzi, Pablo A., “El consentimiento para el tratamiento de datos personales (Opt-in versus Opt-out bajo el régimen de la ley 25.326”, *Jurisprudencia Argentina*, 0003/012622. In a similar case, “Unión de Consumidores y Usuarios v. Citibank N.A.”, 12/05/2006, National Court of Appeals on Commercial Matters, room E, the Court concluded that “...the use of the data, as announced in the same circular, would have a different purpose from the one that motivated its obtaining, in contradiction with the provisions of [Law 23.326]. In effect, the translocation of the information to be used for its own advertising purposes or for third parties would exceed the cause that has given the entity that data: the agreement entered into with the entity in occasion to contract a certain product. Faced with this, it would be necessary to have the prior and express consent to modify the destination of the information...”.

big data analysis on personal data where the purpose of the treatment is different or not compatible with the one that motivated its collection, unless the analysis involves dissociated data (article 28).¹⁴

Big data transactions usually involve the creation of profiles or patterns of social behaviour from the analysis of large volumes of data dissociated from the owner of the data. In these cases, the owner of the data does not suffer any attack on its privacy.¹⁵ The entity that exploits dissociated data may generate value from the commercialization of those profiles or patterns provided that it informs the owners of the data in advance of such a treatment.¹⁶

On 2 March 2020, the Executive Power sent to Congress a Bill to modify Law 25.326 in order to keep pace with technological advances.¹⁷ In particular, the Bill proposes to add the processing of personal data through drones and data processing in the Cloud as two new special cases in article 23.¹⁸

Finally, Disposition 60/2016 of the National Directorate for the Protection of Personal Data approved rules for the international transfers of personal data and identified those countries that provide an adequate level of data protection.¹⁹ For its part, Disposition 159/2018 of the Agency for Access to Public Information approved the guidelines for binding corporate rules that companies within the same economic group may use for the purposes of making international data transfers to countries without an adequate level of data protection. Both dispositions regulate “data outsourcing” and “cloud service” and their impact on personal data.²⁰

¹⁴ González Allonca, Juan Cruz and Ruiz Martínez, Esteban, “Big Data: riesgos y desafíos en el tratamiento masivo de datos personales”, LA LEY2016-B, 1051.

¹⁵ Faliero, Johanna C., “Los desafíos jurídicos del big data. Tensiones de derechos entre la parametrización analítica, la toma automatizada de decisiones, el targeting y el perfilamiento”, Sup. Esp. LegalTechII 2019 (noviembre), 71: “Big data or large-scale data processing and data mining are two sides of the same process since one is responsible for processing large masses of data while the other is responsible for extracting useful data from said prosecutions. Regarding the use of big data and data mining techniques, both artificial intelligence, machine learning or machine learning and deep learning or deep learning make use of them”.

¹⁶ González Allonca, n. 12.

¹⁷ In 2018, another Bill had been sent by the Executive Power to Congress which also included the treatment of data processing in the Cloud. See, Zapico, María Victoria, “Relaciones jurídicas que surgen del contrato de Cloud. Las obligaciones de las partes bajo la legislación protectora de los Datos Personales”, SJA 03/04/2019, 71.

¹⁸ With respect to data processing using cloud computing services, it will be permitted when compliance with the principles and obligations established by Law 25.326 is guaranteed. The data controller must choose a service provider that guarantees compliance with the law. In particular, the data controller must control that the cloud computing service provider: a) has a personal data protection policy or service conditions to guarantee the protection of personal data; b) reports the subcontracting involving the personal data, notifying the person responsible for the treatment of any changes that may occur; c) does not include conditions in the provision of the service that authorize or allow it to assume ownership of the databases processed under this modality.

¹⁹ Palazzi, Pablo A., “Transferencia internacional de datos personales. Nueva regulación de la Dirección Nacional de Protección de Datos Personales”, LA LEY2017-A, 1039.

²⁰ Frene, Lisandro, “Tratamiento informatizado de datos personales: Saludable evolución normativa”, LA LEY 2016-F, 1195.

Part One: Basic principles: Character, source and nexus

1.1. General overview

Argentina has not adopted substantial modifications to the income tax for the digital economy.

As a general principle, the furnishing of digital services by foreign beneficiaries does not involve income derived from an Argentine source, and thus income tax is not triggered. However, exceptions to this general principle exist and may include cases involving: the existence of a PE in Argentina; the transmission or broadcast of images and sound through streaming platforms; and the provision of digital services involving the furnishing of technical assistance.

1.2. Character

In the “Data Brokers / Information Resellers” case, Website Co is “data feeds” which has access to current streams of user data generated through traffic on its website and provides access to such a raw data to third parties for consideration. Broker Co is a “data broker / information reseller” that acquires raw data to transform it into aggregated data applying its own analytics tools and sells copies of data sets to Customers (second-party data). In addition, Broker Co gathers raw data (first-party data) from cookies, loyalty cards, user contributed data from social media websites, and similar sources.²¹ These transactions involve characterization issues with respect to two payments.

First, the annual payment made by Broker Co to Website Co in consideration for access to raw data is a payment for the provision of a service. Under Argentine law, the raw data downloaded by Broker Co is not property neither is it protected by the Copyright law. Broker Co gathers the raw data directly from the application program interfaces (“APIs”) built into the Website Co’s website.

Second, the payment made by Customers to Broker Co. for the purchase of copies of data sets also constitutes the payment for the provision of a service. Such information is transferred for a fee to Customers based on the size of the aggregated data and the degree of analytics applied by Broker Co. Customers use the aggregated data provided by Broker Co. for purposes of targeted advertising, fraud, detection, marketing analysis, or similar purposes. This transaction does not involve access to raw data, but the acquisition of aggregated data defined in accordance with the requirements of Customers. Accordingly, such a static data set can hardly be considered a “database” within the meaning of the Copyright Law 11.723, whose reproduction constitutes an infringement of a copyright. This second-party data lacks the minimum degree of creative activity on the part of Broker Co. Indeed, Customers may set parameters to define the data sets they purchase.

²¹ Art. 27 of the Personal Data Protection Law 25.326 establishes that in the collection of addresses, distribution of documents, advertising or direct sales and other similar activities, data that are suitable to establish specific profiles for promotional, commercial or advertising purposes or establish consumption habits, may be processed, as long as the data derive from documents accessible to the public or have been provided by the owners themselves or obtained with their consent. In these cases, the owner of the data may exercise the right of access without any charge and may at any time request the withdrawal or blocking of his name from the data banks.

Argentine law did not adopt a *sui generis* approach providing copyright-like protection to aggregated data. Nevertheless, contract law protects Broker Co's structured database sets as a result of Customers being prohibited by contract from on-selling the data.

In the "Data Feeds" case, Animal Data Co transfers to Information Site Co aggregated data consisting of maps of predicted animal density at various future points of time, which has been structured through data analytics tools applied to different sources of raw data (i.e. weather forecasts, food supply, predator density and other elements). Information Site Co pays a monthly fee to display this information in its website and it is only authorized to use Animal Data Co's data analytics software and algorithms to display the information on its website. The Copyright Law 11.723 might arguably protect Animal Data Co's database because it contains a minimum degree of originality on the part of the owner of the database, namely, Animal Data Co. Accordingly, the transaction may be characterized as a license or the provision of a service.

In the "Performance Data Analytics" case, Service Co's enters into different transactions. With respect to the after-sales service contract with equipment purchasers, involving the provision of performance, monitoring and failure prediction services, it may be characterized as the provision of a service. The fact that the information is generated by automatic software (i.e. sensors) does not alter the characterization. On the other hand, the consumer behaviour consulting services to third parties based on information received from the consumer appliance user data may be arguably characterized as a service of a technical or consultancy nature.

Finally, in the "Analytics Based Consultancies" case there are two different transactions performed by Consultant Co. The consultancy work with educational institutions is a service of a technical or consulting nature because Consultant Co applies valuable information accumulated in its database to advise educational institutions. By contrast, the permission afforded to third party researchers to access its database for a fee constitutes the provision of a service. Contract law protects Consultant Co's structured database from being disseminated the data.

1.3. Source

Argentina's Income Tax Law (ITL) defines Argentine-source income in articles 1, 5, 6 to 13 and 104 (Law No. 20.628 and regulating decree 824/2019). Services are to be considered sourced in the place where they are rendered, therefore excluding from taxation income arising from activities performed entirely abroad by non-residents. The fact that those activities are directed toward customers, clients, or end-user residents in Argentina is irrelevant.²²

The data transactions that are characterized as the provision of a service are only sourced in Argentina if they are performed in its territory (article 5, ITL). Accordingly, it would not be sourced in Argentina: i) in the "Data Brokers / Information Resellers" case, the annual payment made by Broker Co to Website Co in consideration for access to raw data, and the payment made by Customers to Broker Co. for the purchase of copies of data sets; ii) in the "Performance Data Analytics" case, the payment for the provision of performance, monitoring and failure prediction services as part of the after-sales service contract with

²² Teijeiro, Guillermo and Ferreyra, Ana Lucía, "Argentina: Sharing Economy", Tax Management International Forum, 39 FORUM 6, 8/28/18, 2-3.

equipment purchasers; and iii) in the “Analytics Based Consultancies” case, the payment for the permission afforded to third party researchers to access to Consultant Co’s database. If those payments were made by an Argentine resident to a non-resident, they would be deemed to be compensation for services performed outside Argentina. Therefore, they would constitute foreign-source income that is not subject to tax in Argentina, in the absence of an Argentine PE of the service provider.²³

There are two exceptions to the general principle according to which the place of the income-producing activity determines the source of income. The ITL recognizes Argentine-source income for services that are deployed abroad but are economically utilized in Argentina with respect to: i) fees paid by a resident for technical, financial, or similar advice (article 13, ITL);²⁴ and ii) film and television royalties, as well as royalties for “any other operation that involves the projection, reproduction, transmission or diffusion of images and / or sounds from outside whatever the medium used” (article 14, ITL).

Fees for technical assistance, engineering or consulting services paid to a non-resident are subject to a final withholding tax with differing tax rates: i) 21% (withholding tax of 35% on 60% of the gross payment) where the agreement complies with the Transfer of Technology Law 22.426, it was registered with the National Institute of Industrial Property (INPI) and the services could not be obtained in Argentina (article 104, inc. a), section 1, ITL); ii) 28% (withholding tax of 35% on 80% of the gross payment) where the agreement was registered with the INPI, but the services could be obtained in Argentina (article 104, inc. a), section 2, ITL); and iii) 31.5% (withholding tax of 35% on 90% of the gross payment) where the agreement did not comply with the Transfer Technology Law (article 104, inc. i).

These rules may apply to the “Performance Data Analytics” case with respect to the payments made in consideration for the consumer behaviour consulting services provided by Service Co. They may also apply to the “Analytics Based Consultancies” case, with respect to the consulting services provided by Consultant Co to education institutions to improve the likelihood of successful career outcomes through improved educational methods, based on the valuable information accumulated in its database. In these cases, Service Co and Consultant Co use their databases to *support* their technical advice. On the contrary, Consultant Co does not provide technical services within article 13, ITL where it merely allows third party researchers to *access* its database for a fee to engage in their own research projects.²⁵

²³ Teijeiro, Guillermo and Ferreyra, Ana Lucía, n. 21, 4.

²⁴ The Argentine tax administration, AFIP, intended to apply these rules to services provided by non-resident digital businesses. See, “Aerolíneas Argentinas SA”, Tax Court, 12 May 2004; Federal Court of Appeals in Administrative Matters, room I, 05 February 2008; “Austral Líneas Aéreas Cielos del Sur SA”, Tax Court, room A, 06 February 2007; Federal Court of Appeals in Administrative Matters, room V, 02 June 2009; “Líneas Aéreas Privadas Argentinas SA”, Tax Court, room C, 14 April 2010; Federal Court of Appeals in Administrative Matters, room III, 02 June 2009. See, Vaquero, Fernando, “Aspectos fiscales del *cloud computing*” in *Tributación de la Economía Digital*, Braccia, Mariano F (editor), La Ley-Thomson Reuters, Buenos Aires, 2019, 552-562.

²⁵ The Sub-Directorate of Legal Affairs of the AFIP concluded in Resolution No. 47/2017, 06 December 2017, that cloud computing services provided by a non-resident digital company “would not involve the transmission of knowledge or decision-making experience that allows qualifying these cloud services as technical advice (...) nor the transfer of intangibles that can be assimilated to goods, but rather the consultation would only cover, in principle, the provision of services by a non-resident to local subjects”. In the same vein, in Resolution No. 54/2018, 09 November 2018, AFIP concluded that the income from advertising services provided by a non-resident company to clients in Argentina did generate income from foreign sources, which was not within Argentine income tax law in the absence of a PE.

On the other hand, the exception of article 14, ITL establishes that half of the price paid for film and television royalties, as well as for royalties for “any other operation that involves the projection, reproduction, transmission or diffusion of images and / or sounds from outside whatever the medium used” is deemed to be a net profit from an Argentine source and subject to a withholding tax with a tax rate of 17.5% (withholding tax of 35% on 50% of the gross payment). It was originally understood that this rule did not apply to digital services whose economic utilization took place in Argentina.²⁶ Therefore, article 14, ITL does not apply to any of the big data transactions involved in the reference case studies.²⁷

Finally, as it was mentioned in the legal background section, where the aggregated data contains a minimum degree of originality it may qualify as a “database” protected by the Copyright Law 11.723 and the decree 165/1994, which provides legal protection to computer programs and databases.

Royalty payments to foreign beneficiaries for the exploitation of copyrights in Argentina is subject to a withholding tax at the general rate of 31.5% (withholding tax of 35% on 90% of the gross payment, article 104, inc. i); or at a reduced rate 12.25% (withholding tax of 35% on 35% of the gross payment) if certain requirements are met (article 104, inc. b, ITL).

In order to apply the reduced withholding tax rate of 12.25%, article 104, inc. b, of the ITL requires: i) the work to be registered as copyright with the National Directorate of Copyright; and (ii) the tax to be imposed on the author of the relevant work or on her “lawful claimants” (*derecho habientes*), according to article 26, inc. j), ITL.

The application of the reduced withholding tax rate on royalty payments was contested by the Argentine Tax Administration (AFIP) in cases where the licensor of a software was a company. AFIP sustained that the reduced withholding rate applied solely to individuals because companies did not qualify as the “author” or “lawful claimant” (*derecho habientes*) within the meaning of article 26, inc. j), ITL.²⁸ Therefore, AFIP concluded that the payments of software royalties were subject to withholding tax at the general rate of 31.5%. The Supreme Court upheld AFIP’s position, concluding that the benefit of a reduced tax rate

²⁶ A preliminary version of the 2017 Tax Reform Bill included a different version of art. 14, ITL (art. 13.1), which established a special Argentine-source rule for digital services provided through the internet. This rule was removed from the Bill because as it was considered inconvenient from a policy and technical perspective, see Riccardi, Andrea, et al., “Swimming against the Current? Taxation of the Digitalized Economy in Latin America”, Bulletin for International Taxation, 2019 (Volume 73), No. 10; Teijeiro, Guillermo, “El tratamiento de los ‘servicios digitales’ en el Impuesto a las Ganancias y en el IVA” in *Aspectos Relevantes de la Reforma Tributaria en Materia de Tributación Internacional*, Braccia, Mariano F (editor), La Ley-Thomson Reuters, Buenos Aires, 2018, 380; and Rajmilovich, Darío, “Servicios en la nube. Tratamiento en el IVA e impuesto a las ganancias”, IMP - Práctica Profesional 2018-XXXVII, 11.

²⁷ However, recently AFIP changed its view to conclude that the advertising services that are offered by foreign companies to clients residing in Argentina, “to the extent that materialize in audio visual content (videos, images, sounds, texts, banners, etc.), are covered by the Income Tax Law”, in accordance with article 14, ITL. See Resolution No. 39/2021, 03 June 2021.

²⁸ See, Goldemberg, Cecilia E., “Impuesto a las ganancias sobre pagos por derechos de autor”, *Periódico Económico Tributario*, 2005, 177; Malumián, Nicolás y Palavecino, Federico, “Retenciones por pagos al exterior a personas jurídicas por uso de software”, *LA LEY*, 2006-A 394; Fernández, Luis Omar, “Tratamiento impositivo de los derechos de autor”, *Práctica Profesional* 2011-141, 75; and Fraga, Diego N., “Los pagos a personas jurídicas del exterior por la explotación en el país de derechos de autor: Polémica por su tratamiento en el impuesto a las ganancias”, *Revista Argentina de Derecho Tributario de la Universidad Austral* (Ediciones RAP) N° 14, abril-junio 2005, pág. 91 y ss.

was intended for the author herself and her “heirs” and not for companies.²⁹ In sum, the reduced 12.25% withholding rate does not apply to payments made to foreign companies.

It has been argued that the simple use of tangible or intangible goods protected by the Copyright Law does not create Argentine-source income. According to this position, there would only be Argentine-source income in the case of an “operating license” that affords the licensee the possibility of an economic exploitation within the national territory, that is, where the users of the database have acquired something more than its use, such as the right to license the use of the system to third parties or facilitate access to the database.³⁰

Accordingly, the monthly fee paid by Information Site Co in the “Data Feeds” case for the access to aggregated information consisting of maps of predicted animal density could arguably be characterized as the payment of a service and not a royalty payment, even where the Copyright Law would afford copyright protection to the database. The same conclusion can be drawn in the “Analytics Based Consultancies” case with respect to the payments made by third party researchers to access Consultant Co’s database. Indeed, the “access agreement” does not allow the researchers to further disseminate the data.

1.4. Nexus

As described above, services rendered abroad that involve technical or other kinds of assistance provided to an Argentine resident are deemed to derive income from an Argentine source and are, therefore, subject to income tax in Argentina. The applicable withholding rate may vary under the income tax law (ITL) and relevant tax treaties.

The ITL does not clearly define what constitutes technical or other kinds of assistance. Based on tax rulings, case law, and expert commentary, the following cases involve technical assistance:

- when advice is provided involving intellectual creation or subjective empirical experience;
- when advice provided abroad is necessary for the development of economic activities in Argentina and those activities are directly related to significant features of the advice;

²⁹ “Application Software SA (TF 16.664-I) c/ DGI.”, Supreme Court, 30 August 2011; “Picapau SRL c/DGI s/recurso directo de organismo externo”, Supreme Court, 20 September 2005; Federal Court of Appeals in Administrative Matters, room IV, 29 September 2000. See, Messineo, Alejandro E., “Income Tax Withholding and Reporting Obligations on Cross-Border Payments”, Host Country Argentina, Tax Management International Forum, Bloomberg Tax, Volume 34, No 4, December 2013, 7.

³⁰ Forcada, Carlos A., “Algunas reflexiones en torno a la propiedad intelectual y la ubicación de la fuente productora de las rentas. Parte segunda”, *Doctrina Tributaria ERREPAR (DTE)*, XXXIV, Abril, 2013: “the new technologies have produced a reconfiguration of incomes that previously paid for the use of an intangible and now have become the consideration for a service, with the consequences that this implies in a system jurisdictional as the Argentine based on the doctrine of territorial sovereignty...”. The author adds that “...the question of determining the source does not simply depend on whether there is a protected work, because in such a case it would easily be possible to reach the conclusion that all payments related to intangible assets to be used in the territory are of Argentine source, which is false (...) In this regard, once it is determined that the copyright law protects the work, it is necessary to go one step further in order to verify under what title the protected work may be used...”. See also, Vázquez Cambón, María I., “La realidad del impuesto a las ganancias en relación con el software y el uso de bases de datos internacionales”, *Consultor Tributario*, enero, 2012; and Screpante, Mirna S., “La importación de software frente al impuesto a las ganancias”, *Consultor Tributario*, octubre, 2011, 43.

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- when activities related to that advice are carried out in Argentina at the same time as the technical services provided from abroad; and
- when payment for the advice is part of the costs incurred to produce goods or render services locally using the advice.

The ITL is also unclear regarding when services rendered abroad constitute “other kinds of assistance” that lead to the generation of income from an Argentine source. However, it is generally understood that the foreign beneficiaries must provide some know-how to qualify.

Moreover, payments for the use of or right to use intangible property can also be Argentine-source and thus may be subject to withholding in Argentina. However, if the right to use intangible property is inherent to the provision of a digital service, and the service itself is the main obligation assumed by the foreign beneficiary, then the tax is not triggered. Indeed, any provision of digital services from abroad may involve granting permission for the recipient in Argentina to access the services. Those permits should not be taken to imply that the payment is taxable if the consideration is mainly for the digital services rather than those permits.

The Argentine ITL asserts tax jurisdiction on residence and source. Residents are taxed on a worldwide income tax basis while non-resident aliens, whether individuals or legal entities having no presence in Argentina (i.e., a branch or, more generally, a permanent establishment or PE), are only taxable on Argentine source income, as defined by ITL and its implementing regulations.

In connection with the taxation of non-residents, the principle of source plays a crucial role in allowing the exercise of tax jurisdiction and in defining taxable income, to such an extent that income from activities (e.g., the rendering of services) performed abroad in their entirety by non-residents, is beyond the reach of the Argentine tax jurisdiction; and that is so regardless of the fact that such services may be destined to customers, clients or end-users residing in Argentina. This last fact is alien to the assessment of source under ITL but for two exceptional cases: i) technical, financial or similar advice rendered from abroad, and ii) cinematographic films, radio or TV broadcasting or other means of video or sound transmission from abroad, provided that they are economically utilized in Argentina (i.e., used in a business by the resident service recipient).

This understanding is shared by the tax agency (AFIP) in cases concerning digital economy services rendered from abroad to end-users residing in Argentina: The residence of the users in Argentina (i.e., the existence of a local market) might not be deemed an income producing event nor a succedaneum of local activity deployed by a non-resident taxpayer in the context of ITL.

These technical legal concepts –identification of the source with the place where the income producing activity is deployed and the dissociation of the tax jurisdiction with the place of residence of the service recipient– are not only textual and clearly incorporated in ITL but are of longstanding and almost universal application within OECD/G20 countries.

The operation of a digital platform also renders business income under treaty law and scholars’ opinions. Regarding online advertising it has been sustained that the characterization of the activity is undoubtedly the provision of a service; an online advertiser hires and pays for advertising services (display of its advertisements among a particular audience of the website) and not for the use of intangible assets developed by the site operator, e.g., database of users of the site.

In similar terms, the Argentine tax agency has held that the nature of the activity may not be embrangled with the technological means through which the service is provided.

Part Two: Application of treaty principles

2.1. General overview

Argentina has signed Conventions for the Avoidance of Double Taxation based on the OECD Model Tax Convention (OECD Model). None of the treaties include a definition of digital services, some of them include computer programs under the royalty chapter, and the new treaties include the definition of the term “technical assistance”. In this regard, it can be generally agreed that an important delimitation criterion between article 12 and article 7 of the OECD Model is the mode of usage of the intellectual property (IP).

2.2. Detailed comments

Argentina has signed Conventions for the Avoidance of Double Taxation with the following countries: Australia, Belgium, Bolivia, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Italy, Mexico, Norway, Russia, Spain, Sweden, Switzerland, the Netherlands, the United Kingdom and Uruguay. Recently, the Argentine Executive signed tax treaties with Qatar, Turkey, the People’s Republic of China and Luxembourg, but they are pending approval by the Argentine Congress. In general, these treaties are based on the OECD Model.

None of the treaties include a definition of digital services, some of them include computer programs under the royalty chapter, and the new treaties include the definition of the term “technical assistance”. Technical assistance is understood as the rendering of services involving the application by the provider of any non-patentable specialized knowledge, ability or experience, and not necessarily requires the transmission of such knowledge to the client. Then, two possibilities may arise regarding the withholding tax rate of digital services in a treaty context, either it is categorized as business income, or as a technical service.

The discussion under the Argentine and OECD DTT would mainly be if the gains obtained by streaming services, or similar, under the digital economy would fall under article 7 of “Business profit” or under article 13 of “Royalties”; in particular, if streaming services’ revenues qualify as payments received in consideration “for the use of, or the right to use...motion picture films and works on film, videotape, or other means of reproduction for use in connection with television...trademark...computer software”.

As regards the “royalty” definition, the Commentaries³¹ to article 12 of the OECD Model state that it relates to “rights or property constituting the different forms of literary and artistic property, the elements of intellectual property specified in the text and information concerning industrial, commercial or scientific experience.” According to the Commentaries, article 12 applies to payments made in consideration for the use of, or the right to use, an element of property included in the definition.

Following a reasonable interpretation of the Commentaries, the determining factor for the purpose of the definition of “royalties” is the granting of the right to exploit or commercially use the elements of property included in the definition. In this sense, “royalty”

³¹ It should be noted that, different Argentine case law have quoted OECD documents and stated that such documents are a source of consultation in international tax matters. Among others, National tax Court, Chamber B, “Volkswagen Argentina SA”, 11 December 2009; “ITALTEL SPA Sucursal Argentina”, 20 April 2015; Chamber C, “La Industrial Paraguaya Argentina SA”, 11 March 1980; “Compañía Ericsson SACI”, 15 August 2007.

qualification should apply where the essential consideration for the payment is the granting of rights to commercialize or exploit certain intellectual property, but not in cases where the mere use of such property is ancillary and granted for personal and non-commercial purposes.

In this regard, it can generally be agreed that an important delimitation criterion between article 12 and article 7 of the OECD Model is the mode of usage of the intellectual property (IP). Article 12 only covers the transfer of “the use or the right of use”, this is, the letting of IP from the beneficial owner to the payer; thus, the payer must use the IP on its own and bears the risk of its exploitation.

On the contrary, if the IP is used by the beneficial owner and he bears the risk of its exploitation or liabilities for the use, the beneficial owner makes own entrepreneurial use of that IP that falls under the scope of article 7.³²

However, in our understanding, the Subscription Fee monthly paid by the end-customer is not related to the “use of” or “the right to use” any copyright related to streaming service content, in the terms required by article 13 of the DTT. There is no commercial use by the end customer of streaming service content and there is no license on the copyright which is retained by the streaming service provider. Thus, the use by the end customer of streaming service content should not be relevant for classification purposes because it does not correspond to what the Subscription Fee essentially is in consideration for (i.e. entertainment service offered through Internet via streaming).

In this regard, a streaming service provider would not obtain any gain derived from the exploitation of intellectual property, rights or commercial use in Argentina related to any software, trademark or intellectual property. The streaming service fee would be monthly charged to the customer upon its subscription regardless the times the customer has actually accessed the streaming service, or the number of content it has seen or, even more, regardless if it has accessed the streaming service at all. It would be reasonable to sustain that payments to the streaming service provider are performed in consideration of an entertainment service consisting of making available to Argentine customers certain content for personal use.

In this regard, in 1999 the Subgroup of Tax Matters of the National Ministry of Economy issued a report addressing the tax treatment of e-commerce. In this report, it was stated that in the case in which the acquirer of digital content through electronic means is an individual acting as an end user utilizing the content for its own entertainment and personal consumption, the transaction should be qualified as a service.³³

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

The fundamental principle of the current international tax system is to tax profits at the location of value creation. The discipline of transfer prices has evolved to assess the key

³² Matthias Valta, in Reimer & Rust (Editors), Klaus Vogel on Double Taxation Conventions, 4th Edition (2015), art. 12.

³³ See the report in the following link:
<http://www.mecon.gov.ar/download/comercio/electrónico/informe2/anexo3.pdf>.

value drivers in the value chain of an MNE and attribute that value to the location(s) that contributed to its creation. Although some of the value drivers have changed in the digital economy, the assessment of their value contribution and how it is created remain very relevant considerations.

Data is at the heart of digital business models, fuelling value creation. These can create significant value when used and translated into business information, algorithms, or applications.

The OECD approach “significant functions of individuals” is the main criterion for attributing risks and assets linked to a PE and, consequently, its profits or income. However, since the Digital PE can exist without any physical presence (i.e. people), many authors ask if the arm’s length principle is suitable for dealing with new user features; and typical digital economy data, and whether it is possible to find enough comparables for these functions. Thus, it is considered that the OECD approach is not useful for these purposes and that new principles relating to the allocation of benefits should be developed to broaden the definition of “value creation” and thus be able to allocate income to a jurisdiction in which there is no physical presence of the non-resident enterprise.

As Hongler and Pistone contend,³⁴ the current Guides do not work for Digital PE because, in cases like this, there are no traditional company risks and functions that may be assigned to the jurisdiction of the establishment. According to these authors, “no special analysis is required to demonstrate that the current OECD transfer pricing guides based on risks, functions and capital allocated to the PE cannot be sustained if a new nexus based on digital presence is implemented. No income could be allocated to a foreign EP following those parameters.”

This idea is confirmed by Action 1 of the BEPS Final Report, which concludes that transfer pricing rules need to be reconsidered to solve the challenges presented by the digital economy. As is known, the BEPS project addresses the issue of transfer pricing under Action 8-10. Since the publication of this final BEPS report in 2015, the international academic community has significantly discussed the transfer pricing standards and guidelines suggested in that report. In 2017, the OECD updated the Guidelines and subsequently published two Draft Discussions on The Attribution of Earnings to PEs (2018) and Transactional Earnings Divisions. However, BEPS Actions 8-10 and subsequently issued documents did not substantially address the problems of the digital economy, so the analysis of transfer price problems generated by the digital economy (i.e. income allocation) was limited to what is addressed by Action 1.

Action 1, however, raises only concerns and no response to the challenges posed by the digital economy in the area of transfer pricing. Thus, this action highlights as a concern: (i) whether existing transfer pricing rules and rules on the allocation of benefits to PEs are sufficient to treat an PE with little physical presence; and (ii) whether, and how, the Existing Guidelines should be amended, and the OECD Report on the Allocation of Benefits to PE. Finally, the BEPS report recognizes that the complexities in the implementation of these rules could be further increased by the wide participation of intangible assets in digital transactions.

The United Nations (UN) has also considered issues related to the digital economy tax challenges in the 2017 updates of the UN Practical Manual on Transfer Prices for

³⁴ Peter Hongler - Pasquale Pistone “Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy”. Working paper 20 January 2015.

Developing Countries (the “UN Handbook”) and in the report of the Committee of Experts on International Cooperation on Tax Matters, “Tax Challenges in the Digitized Economy”.

For its part, as regards the allocation of income to the Digital PE, the EU proposal considers that it is appropriate to allocate revenue to that presence in the same way as income is allocated to traditional EPs, i.e. taking into account the functions performed by the company in the jurisdiction, the assets used by it and the risks assumed, via a digital interface (according to the Guides). In addition, the project suggests applying the profit-distribution method or profit split method unless it was proven that there was another suitable method. In order to overcome the challenges involved in this approach, the EU Commission stresses that potential profit-splitting factors could include expenditure incurred for research, development and marketing (attributable to the SDA in relation to expenditure attributable to head office and/or any other SDA in another member state), as well as the number of users and data collected by a member state. In this way, the allocation of profits to the Digital PE proposed by the EU is based on the current applicable framework but adapted to reflect how value is created in the PE.

At the general level, the EU proposal does not delve deeper into the issue of income allocation to the Digital PE and in fact recognizes that its proposed rules “only set out the general principles for allocating income to an SDA, as more specific guidelines on the allocation of benefits at appropriate international or at EU level could be developed”.

The limitations of traditional transfer pricing rules in the field of the digital economy led authors promoting the introduction of the Digital PE to identify the following options for effective income allocation to the jurisdiction of the Digital PE: (i) apportionment of income through formula (i.e.. Formulary Apportionment), (ii) gross income taxation, (iii) a redefinition of relevant roles and risks to determine the price of appropriate transfer, (iv) an amendment to the current Profit Division Method with an initial allocation of a portion of the profits to market jurisdiction; (v) doing a case-by-case analysis of the value chain and applying the rules accordingly that the OECD/G20 promotes in the context of the new article 7 of the EAFDE and the so-called OECD approach; or (vi) with options that combine a destination-based IR (“IRD”) or a Formulary Apportionment, with the current ALP-based transfer pricing system.

Based on the Argentine transfer pricing rules, the most suitable method for a transfer pricing analysis to be applied to the digital economy would be the Residual Profit Splitting Method. This method applies in cases where two or more parties make non-routine contributions to intangible properties or services. In our experience, “non-routine” intangibles or services are defined as intangible or functions for which reliable market price, margin or profitability data cannot be obtained. Therefore, non-routine contributions are specific to each taxpayer’s facts and circumstances. The residual profit division method begins with the consolidated profit of the transactions under analysis, allocates the benefits to the routine functions performed by the parties, and then divides the residual profits based on the relative value or cost of the non-routine contributions made by the parties.

In our experience, there is often not enough information available to support a reliable application of the comparable profit splitting method. This is due to the lack of data and the challenges of establishing comparability. Except in a few industries, stakeholders in the labour sector rarely participate in detailed collaboration agreements and publicly disclose enough associated details. In addition, the application of a comparable profit-split analysis would not only require the identification of a comparable uncontrolled transaction, but also segmented financial data for all parties involved in that transaction.

For its part, we have observed numerous cases in which, in practice, the residual profit-

sharing method is used. Particularly when a combination of reference activities (e.g. sales or marketing services) and non-routine production and supply chain functions contribute to the final profit obtained from the intercompany transaction. In addition, the allocation of the residual benefits division may have more when a related party makes an agent-related contract on behalf of a lead producer-seller, including the circumstance in which restricted distribution sales are present.

Typically, the residual profit-sharing method would be applied in cases where (i) the parties to a transaction contribute to creating a surplus benefit that could not be generated if the parties had acted on their own (for example, both parties contribute to the creation of a significant value) and (ii) there are no comparable uncontrolled transactions available to directly assess the value of such contributions. In our application of the residual profit-sharing method, we define “non-routine” (or “valuable”) contributions as contributions from intangible assets or services whose value cannot be reliably established with reference to comparable transactions, prices, margins or returns.

In some other applications of the residual profit-sharing method, when a party contributes to an intangible whose value can be evaluated with comparable data, the royalty income attributable to that intangible would normally be treated as a routine return, which means that royalty attributable to routine intangibles can be reliably determined by a unilateral method.

In paragraph 32 of the Guides, the OECD/G20 provide some considerations regarding the net margin method (“TNMM”) that may be useful and considered as an alternative to the application of a profit split. Specifically, the draft discussion presents the possibility that taxpayers may consider adopting a policy that varies returns within the TNMM range as the company’s overall profitability increases or decreases, allowing for some flexibility.

We agree that this is a useful suggestion that would allow many taxpayers to establish a link between TNMM’s profit targets and the company’s overall profitability. This suggestion would address our concern expressed above that distributors with limited control over global profit streams should not bear the brunt or reward of variations in profits. We believe that allowing variations within TNMM ranges based on global profitability measures (or other relevant factors) could address problems that may arise without unnecessarily increasing the complexity or potential of disputes and double taxation.

In many applications of residual benefit-sharing methods involving the use of intangibles, intangible development costs (IDC) can be used as a means to allocate residual benefits. The concept of IDC does not need to be limited to an accounting definition but may more generally include all the economic costs incurred by the parties, including opportunity costs in alternative ways to exploit their resources. This is based on the presumption that all parties to the transaction that contribute to residual profits and assume the associated risk must obtain the same rate of return for the development of the intangibles or services they provided. In some cases, the capitalized cost of IDCs can be computed as long as the data is available; and capitalized value can be used to allocate fractions of profits residual. In any case, the key point to highlight is that the use of IDC in an application of the residual profit division method does not necessarily imply that the value of intangibles is equal to its IDCs, but that each party contributing to intangible development earns the same rate of return. This point is quite important as the use of IDC data does not mean that the value of intangibles is equal to their replacement cost, but that a joint investment to develop intangibles must provide equal rates of return for all participants.

As can be inferred from the above, in practice, reliable applications of the residual profit-sharing method may be among the most expensive and costly transfer price fulfilment

projects. While an analysis of the residual earnings division is based on internal taxpayer data, there may be challenges in collecting and analysing the required information. These challenges arise because (i) applications may require long-term historical data that is not readily available; (ii) applications may require segmented data from multiple sources; and (iii) the selection of discount and capitalization rates, depreciation and amortization schemes require significant factual development.

Once a profit split is used, due to data complexity and calculations, tax authorities may spend more time and additional resources reviewing and auditing applications in the residual profit division method.

In some cases, when IDC data is not available, we have seen applications of the residual profit splitting method using other allocation keys as proxies for IDCs (such as staff or estimated payroll for employees involved in the development of intangible assets) or based on a quantitative measure of the parties' bargaining power, or your opportunity costs.

We have observed some rare cases in which a contributory analysis forms the basis for the implementation of a profit division (i.e., an operational profit division based on allocation keys). We believe this is because the residual gain division method first refers to the results of arm length that are often measured using a TNMM and therefore tends to provide more convenience so that contributions from parts that are easily measurable are paid first.

We currently see that the contributory earnings division is most commonly used in negotiating unilateral or bilateral advance pricing agreements (APA) or in dispute resolution. In our experience, this may reflect the fact that tax administrations and taxpayers find it more convenient and less risky to negotiate a profit division. In addition, profit division percentages may be easier for negotiators to discuss. In such cases, negotiators can relate profit dividend percentages to the concept of impartiality and make easier comparisons with other cases. In these cases, once the mapping keys are agreed, they do not necessarily require further development.

However, for the planning and fulfilment of transfer prices, taxpayers must justify their selection of allocation keys to tax administrations. It is therefore essential that the OECD/G20 and tax administrations provide additional guidance on the selection and application of allocation keys, which must necessarily be rooted in economic theories.

We believe that a robust application of a profit split should be based on allocation keys that take into account a complete analysis of the functions performed, the risks assumed and the assets used by the parties to the transaction and are not based solely on a single factor, such as the template. Allocation keys based on sound economic principles rather than keys that are administratively defaulted are more likely to be consistent with the principle of arm extension and protect against an arbitrary global form-sharing approach.

In fact, variable contributions and risks assumed under the conditions of competition would not necessarily correlate with the results obtained by a combined distribution of the overall form. Material variations are more likely to be expected with respect to the actual functions and risks implemented through the "separate functional enterprise", "natural home" and "centralization of management" strategies with respect to particular types of products, each of which entails separate levels of risk and asset value performance. While these treatments have been observed and tested by the OECD/G20 in the area of financial services, such levels of functional integration and risk measurement have traditionally not been observed in non-financial services distribution and delivery businesses.

Based on our investigation, the use of a contributory earnings division has been observed in the context of court decisions to resolve business disputes. These court cases

or the court's decision on a specific profit-split approach do not necessarily represent an agreed long-term outcome and represent only the efforts of an independent party to resolve the problems. However, they do provide an evidence-based approach for value controllers and allocation keys that can be used under a contributory earnings division. They can also provide information about arrangements that were not agreed upon, or where they were challenged by away matches.

Finally, article 29 of Decree 862/2019 "Transfer Pricing Methods" states the use of the Residual Profit Method and introduces "Other Methods" to assess the market value of intangibles assets.

Part Four: Special regimes

4.1. VAT

Law 27,430 introduces a new taxable event: a Value Added Tax (hereinafter VAT) applicable to the importation of "digital services" rendered by a non-resident to a resident individual or entity when the effective use or exploitation of the service is carried out inside Argentina.

An earlier regulation, Decree 354/2018 of 23 April 2018, a deficient attempt to regulate the VAT applicable on digital services, was recently repealed.

According to the current wording of the VAT Law and its Regulatory Decree, VAT applicable to the importation of digital services has the characteristics that are detailed below.

VAT is triggered by the "digital services" rendered by a non-resident to a resident individual or entity when the effective use or exploitation of the service takes place inside Argentina.

Pursuant to the definition provided by VAT Law, digital services are "*... whatever the device used for download, viewing or use, those carried out through the Internet or any adaptation or application of protocols, platforms or technology used by the Internet or other network through which equivalent services are provided that, by their nature, are basically automated and require minimal human intervention...*" (section 3.21.m of the VAT Law, emphasis ours).

Neither the Law nor the Regulatory Decree provides objective parameters on the requirements of "automation" and "minimal human intervention."

As an illustration, the VAT Law considers "digital services" to be:

1. The supply and hosting of computer sites and web page;
2. The supply of digitized products in general, including, among others, computer programs, their modifications and their updates, as well as access and / or download of digital books, designs, components, patterns and similar, reports, financial analysis or market data and guides;
3. Remote maintenance, in an automated way, of programs and equipment;
4. The administration of remote systems and online technical support;
5. Web services, including, among others, the storage of data with access remotely or online, memory services and online advertising;
6. Software services, including, but not limited to, software services provided on the Internet ("software as a service" or "SaaS") through cloud-based downloads;
7. Access and / or download to images, text, information, video, music, games -including gambling;

8. The provision of databases and any service generated automatically from a computer;
9. The service provided by blogs, magazines or newspapers online;
10. The provision of Internet services;
11. Distance learning or test or exercises, carried out or corrected in an automated way;
12. The concession of the right to market a good or service on an Internet site that functions as an online market, including online auction service;
13. The manipulation and calculation of data through the Internet or other electronic networks.

Regarding the requirement of effective use or exploitation in Argentina, the law establishes presumptions that do not admit evidence to the contrary. Thus, the law presumes that the effective exploitation of the service is carried out in Argentina when it is located in Argentina:

.... The IP address of the device used by the customer or SIM card country code, as specified in the previous paragraph; o
The billing address of the local client; o
The bank account used for the payment, the billing address of the customer that the bank has or the financial institution issuing the credit or debit card with which the payment is made ... “(section. 1 of the VAT Law).

Pursuant to section 65.8 of the Regulatory Decree, if the indications that do not admit evidence to the contrary described in the previous paragraph are not verified, then any other indication to which the AFIP may appeal is rebuttable. It is also possible to rebut the classification as a “digital service”; that is, if the tax authorities consider that a service is a “digital service,” contributors may produce evidence to challenge such qualification.

Pursuant to the VAT Law, the taxpayer of the VAT applicable to “digital services” is the local service receiver unless the service provider is deemed as a resident according to the Income Tax Law, or when the service provider has a fixed place in the country.

Sections 14.1 and 14.2 of the Regulatory Decree establish that the service provider will not be considered a non-resident when it has been deemed to be a tax resident in accordance with the provisions of the Income Tax Law, or when the service provider has a “fixed place in the country.” In those cases, service providers will be obliged to register as a VAT contributor and to determine and pay the VAT triggered by their operations.

That is, the Regulatory Decree establishes that if the service provider is considered a tax resident for purposes of income tax, then it must be registered in the VAT and pay the tax as a local contributor.

The same applies to a service provider that is not considered a resident for income tax purposes, provided that the service provider has a fixed place in the country.

Neither the Law nor the Regulatory Decree clarify the meaning of “a fixed place in the country,” so, in principle, the term could broadly encompass any office, agency or physical place.

It is unclear whether, by way of the Regulatory Decree, a non-resident could be granted VAT taxpayer status based only on the fact that it is a resident for the purpose of income tax, or only because it has a fixed place in the country.

Finally, if the service provider is considered a tax resident under the Income Tax Law, or has a fixed place in the country, the service provider must register as a VAT contributor, filling VAT tax returns and paying the tax as a resident. Otherwise, it is the service provider who is considered a taxpayer and must pay the VAT triggered by “digital services.”

The VAT paid by the service receiver is considered a tax credit and can be credited against VAT tax debits, provided that the services receiver is already a registered contributor of the VAT.

As indicated above, the VAT taxpayer on digital services is the service receiver, as provided in section 4th i) of the VAT Law.

For the purpose of registration and payment of the tax, section 69 of the Regulatory Decree provides that the tax authority shall dictate the standards to which the taxpayers of the VAT must adjust in order to externalize their status as registered VAT contributors.

However, the Regulatory Decree states that in the case of the digital service receiver, the registration obligation shall be deemed fulfilled with the payment of the tax by the corresponding party.

That is, in the event that the VAT is paid by the digital service receiver, the registration obligation is understood to be fulfilled with the payment of the tax in accordance with the provisions of section 65.7 of the Regulatory Decree.

Section 65.7 of the Regulatory Decree establishes that the tax is borne by the borrower either directly or through the collection mechanisms established in said section.

If a resident intermediary mediates in the payment, it will act as withholding agent.

The tax authority shall provide the form and the periods in which the tax collection shall be performed and entered by the intermediary. If there is more than one resident intermediary in Argentina that plays a role in the payment, then the character of withholding agent will be assumed by the one that has the closest commercial link with the digital service provider; in any case, the tax will continue to impact on the service receiver.

The service receiver is obliged to calculate and pay tax in accordance with the form, terms and conditions to be established by the tax authority when there is no intermediary resident in the country that intervenes in the payment.

Resolution 4240 provided more information on the collection process. This new regulation placed the liability for the collection and remittance of VAT on the shoulders of the Argentine consumer's payment provider. The non-resident digital service supplier was not liable for the payment of the VAT.

The AFIP also compiled a list of digital services that were affected by these VAT rules. The list, when published, ran to over 180 international digital service companies, including, for example, Netflix and Spotify. Services delivered by these non-resident companies and consumed by customers based in Argentina attracted the 21% VAT.

These digital services need to be consumed in Argentina and this consumption is determined based on the following criteria:

1. The SIM card of the cell phone receiving the service is located in Argentina;
2. The digital service is received via an Argentinian IP address;
3. The invoicing address of the recipient is one located in Argentina;
4. The bank account used for the payment or the invoicing address on the credit card statement is one located in Argentina.

Note that the download, or access to, e-books were exempt from this VAT law.

The Argentine approach to assigning liability for the collection and remittance of VAT in this new rule is very interesting. The place of supply rules is in place but the liability is not on the non-resident supplier. The liability for the collection and remittance of VAT, in practice, falls on the Argentinian consumer's payment provider.

This approach differs from the OECD guidelines. These guidelines place the liability

for collection and remittance of VAT/GST on the non-resident supplier. In Argentina, with the enactment of this new regulation, the liability is on the local payment provider.

Another noteworthy element of the new Argentine rules is that not all digital services are in scope. The AFIP compiled a list of non-resident suppliers. As the list stands today it is not exhaustive as some large companies are absent. Domestic consumers and payment providers can view this list to know the affected services for which VAT should be applied.

Finally, at the end of 2019, Argentina created a new tax called 'Impuesto País' which has a significant impact on the consumption of digital services in Argentina.³⁵ The general tax rate is 30% of the gross amount invoiced. However, a reduced rate of 8% applies to services that also qualify as digital services for VAT (21%) purposes. Now, all digital services sold to consumers based in Argentina effectively attract tax at the rate of 30% (29% if on the AFIP list mentioned previously).

4.2. Turnover tax

The application of turnover tax to digital services furnished from abroad is likely to give rise to litigation. That is because it is not clear if the city of Buenos Aires (the federal district, which is treated like a province regarding many aspects related to taxation) and the Argentine provinces (collectively, the local jurisdictions) are allowed to tax turnover derived from the furnishing of digital services from abroad by foreign beneficiaries.

Turnover tax is a local tax levied on gross income resulting from activities carried out within a local jurisdiction. Each of the local jurisdictions applies its own turnover tax rules.

Historically, turnover tax has been levied on activities that are physically carried out within the local jurisdiction's territory. For that reason, tax specialists have traditionally said that it can only be collected in compliance with the territoriality principle—that is, the law has been read to require that the activity at issue be carried out effectively, physically, and in a tangible way within the respective territory³⁶ or else the local tax authorities are not entitled to collect the tax. Some have argued that the territoriality principle is not expressly enshrined in the Argentine constitution, but rather that it can be inferred from a logical analysis of several constitutional clauses.³⁷

Case law from the Argentine Supreme Court (Corte Suprema de Justicia de la Nación Argentina, or CSJN) states that local jurisdictions can only impose taxes on activities creating wealth that are carried out physically within their territory³⁸ because they exceed their taxing powers when they tax transactions carried out elsewhere.³⁹ However, in 2017 the CSJN ruled in a case that did not involve foreign beneficiaries but from which the conclusions may be deemed applicable *mutatis mutandis*—that is, with necessary changes

³⁵ The Argentine government will distribute the funds it collects through PAIS, with 70 percent dedicated to financing programs of the Argentine Social Security Agency and 30 percent devoted to financing social housing (a program created by Law No. 27,453), works related to economic infrastructure, and the promotion of domestic tourism.

³⁶ Enrique Bulit Goñi, *Impuesto Sobre los Ingresos Brutos* 70-71 (1997).

³⁷ Carlos A. Forcada, "El Perfil Constitucional del Sustento Territorial en un Entorno de Economía Digital," 423 *Doctrina Tributaria* 439 (June 2015).

³⁸ CSJN Docket 307:360.

³⁹ CSJN dockets 149:260; 151:92; 163:285; 166:109; 174:435; and 182:170.

that do not affect the ultimate point – to digital services rendered from abroad.⁴⁰ In that case, the CSJN held that allegations that a tax authority breached the territoriality principle would not necessarily render a tax unconstitutional if it is duly demonstrated that the relevant financial or commercial activity affects the country in any way. The CSJN supported its conclusion with citations to old decisions that found that activities with any point of contact with the country could be taxable under the income tax. In other words, it could be alleged that the CSJN took the income tax's nexus concept – which allows the taxation of foreign beneficiaries based on some point of contact with Argentina, regardless of whether the activities were carried out within the territory – and applied it to the turnover tax, even though the latter's nexus concept was historically associated with the territoriality principle and required that activities be physically carried out in the relevant local jurisdiction. The ruling of the CSJN is not conclusive, and we await additional case law on this matter.

Further, according to Argentina's constitution, only the federal government can establish import duties and regulate commerce with foreign countries. Thus, another question is whether, in levying a turnover tax on services rendered abroad by foreign beneficiaries, the local jurisdictions are collecting a tax with the practical effects of an import duty or whether they are otherwise exercising powers exclusively reserved for the federal government.

Despite these potential barriers, several jurisdictions have amended their turnover taxes since 2017 to include digital services rendered by foreign beneficiaries when the users, consumers, or business recipients are located within their respective territories.

One of the first jurisdictions to tax digital services furnished from abroad by foreign beneficiaries was the province of Córdoba, which published Law 10,508 at the end of 2017. That law establishes that services furnished by foreign beneficiaries will be considered activities carried out within the province's territory if the service is economically used in the province (for example, through consumption or by accessing the internet) or the service involves taxpayers, persons, goods, and so forth located or domiciled in the province. Moreover, in 2018 the same province enacted Law No. 10,593 according to which streaming and intermediation services on the internet – the law expressly refers to Uber, Airbnb, and similar services – will be considered activities carried out within the province's territory if local persons undertake the consumption or utilization or if the foreign provider has a significant digital presence in the province. According to the related Resolution 4/2019, Córdoba will find that a significant digital presence exists if a foreign provider has more than 50 clients in the province during a tax year.

The wording of the regulations that Córdoba has issued seems to imply that both digital and traditional services are taxable. This is a crucial difference between the policy in Córdoba and other local jurisdictions.

Since 2019, Law No. 15,079 in the province of Buenos Aires has taxed digital services rendered by foreign residents. The province adopted a novel policy for Argentina, taxing only the services provided by foreign beneficiaries that have a significant digital presence in the province at a rate of two percent. According to the law, there is a significant digital presence in a province when, in the previous fiscal year, a foreign beneficiary:

- obtains gross income from the furnishing of digital services to individuals domiciled in the province that exceeds an amount established annually by the applicable tax legislation (for fiscal year 2020, ARS 500,000 (approximately \$6,300));

⁴⁰ *Telecom Argentina SA c/ Corrientes, provincia de s/Acción Declarativa*, CSJN Provisional Docket T. 4. XLVII (26 December 2017).

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- renders services to more users domiciled in the province than the threshold established annually by the applicable tax legislation (for fiscal year 2020, 1,000 users); or
- enters into more transactions, operations, or agreements with users domiciled in the province than the threshold established annually by the applicable tax legislation (for fiscal year 2020, 10,000).

The beneficiary of the service – that is, the Argentine user – is liable for paying the tax as substitute obligor. In 2019 the tax authority of the province of Buenos Aires established a regime according to which entities facilitating or managing payments of digital services to foreign beneficiaries must collect turnover tax from users. For these purposes, the tax authority will publish a list of suppliers that are deemed to be furnishing digital services. This regime also allows foreign beneficiaries with a significant digital presence to register with the tax authority and then submit their own tax returns and pay the tax. Foreign beneficiaries that register with the tax authorities would be excluded from the list mentioned above, and no withholding would apply. However, we do not foresee any foreign beneficiaries registering with the tax authority because that registration might have effects for federal tax purposes – that is, it might be understood that the foreign beneficiary also would become a VAT and income tax taxpayer.

The entry into force of the collection regime was postponed until 31 May 2020 because of the COVID-19 crisis. As of September 2020, the tax authorities had not issued a new resolution suspending the date further, but public measures related to the COVID-19 crisis are still in place, and it is not clear if the regime is in force. In any case, the entry into force of the regime is imminent.

In late 2019 the city of Buenos Aires also included digital services furnished by foreign beneficiaries in the scope of its turnover tax when the services have economic effects within the city, are addressed to persons or assets located or domiciled in the city, or when the foreign beneficiary has a digital presence in the city according to different parameters provided by the relevant legislation. The party responsible for the payment of the tax – set at a rate of two percent – is the recipient of the service. Entities that facilitate or administrate payments for services will have to collect the tax from the recipients based on a list of suppliers to be issued by the city of Buenos Aires. If the payment is made without the intervention of such an entity, or if the entities involved do not collect the tax, the recipient of the service remains responsible for the payment of the tax. The city has postponed the effective date for the regime until 1 January 2021.

Other local jurisdictions have amended or are in the process of amending their tax legislation to reach digital services rendered by foreign beneficiaries, and they are establishing regimes that have elements in common with those in the province and city of Buenos Aires and the province of Córdoba.

Many of these regimes are not yet in force, but we anticipate that the courts will become involved and eventually decide whether local jurisdictions have the power to apply turnover tax to digital services provided from abroad.

Summary and conclusions

In Australia, there are no property rights in data per se. In certain circumstances, however, there may be property rights in the presentation of data (in the form of copyright) or contractual rights in confidential data (in the form of confidential information). Moreover, data may attach itself to a capital asset, such as knowhow, a database, a customer or supplier list, a server or software.

For Australian income tax purposes, a data transaction may be characterised as a royalty, a service, a sale (on income account) or a capital transaction. As leasing arrangements are intimately connected with real property in Australia, a data transaction will not be characterised as such.

The characterisation of the data transaction, coupled with traditional concepts of residence and source, will largely inform the income tax consequences. An inbound royalty is taxable in the hands of the Australian payee. An outbound royalty is taxable in the hands of the Australian payer (i.e., subject to withholding tax), but the rate may be reduced if Australia has a double tax agreement with the jurisdiction of the payee. A royalty between two non-resident taxpayers is unlikely to be subject to Australian tax unless it has an Australian source. Complexities may arise where, for example, the property to which the royalty relates, is located in Australia (e.g., data stored in an Australian server).

Inbound service fees and sales receipts are taxable in the hands of the Australian payee. Outbound service fees, and service fees between two non-resident taxpayers, are unlikely to be taxable in Australia unless they have an Australian source. Complexities may arise where, for example, the service is performed in Australia. Similarly, sales payments, and sales between two non-resident taxpayers, are unlikely to be taxable in Australia unless they have an Australian source. Complexities may arise where, for example, the sales are negotiated and concluded in Australia.

Where a data transaction is on capital account, Australia's capital gains tax provisions may apply if a so-called 'CGT event' (e.g., disposal of capital asset) has occurred. Australia's ordinary residence and source rules apply to determine whether, and the circumstances in which, tax is payable in Australia. Key considerations may include, but are not necessarily limited to, where any underlying capital asset is owned, how it came into existence and where any contracts were negotiated or concluded.

Australia has domestic permanent establishment rules that are arguably broader than those provided by article 5(1) of the OECD Model Tax Convention, with no requirement that any permanent establishment is *fixed*. This may be modified by any double tax agreement that may apply to a particular data transaction. It is important to note that many of Australia's double tax agreements contain uncommon or unique permanent establishment rules, including services permanent establishments, substantial equipment permanent

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establishments and manufacturing or processing permanent establishments. Many of these rules exist to protect Australia's sovereign interest in taxing activities connected with its natural resources sector, although they may have broader application and need to be consulted in each case. In attributing profits to permanent establishments, Australia has not adopted the Authorised OECD Approach contained in its *Report on the Attribution of Profits to Permanent Establishments* (2010). Instead, it applies the so-called 'Relevant Business Activity' approach, which attributes profits between a head office and its permanent establishment by only allocating third party income and expenses.

Australia's domestic transfer pricing provisions are broadly aligned with article 9 of the OECD Model Tax Convention and the OECD Transfer Pricing Guidelines, although there are a number of subtle differences that may need to be considered in certain circumstances. Importantly, Australia's domestic transfer pricing provisions are not restricted in their application to associated enterprises (although, in practice, they are rarely invoked outside an associated enterprises context). In addition, this reporter notes the potential emergence of a unique 'commercial rationality' principle in domestic Australian law. Although such a principle may be found in the reconstruction guidance contained in the 2017 version of the OECD Transfer Pricing Guidelines, it appears to be applied more widely in Australia, arguably differing from transfer pricing orthodoxy that acknowledges the fact that just because a transaction cannot be observed at arm's length, does not mean that it is not arm's length. Australia also contains two targeted anti-avoidance rules that may be relevant in transfer pricing / permanent establishment profit attribution disputes, namely the multinational anti-avoidance law (loosely based on the 'avoided permanent establishment' limb of the UK's diverted profits tax) and the diverted profits tax (loosely based on the 'insufficient economic substance' limb of the UK's diverted profits tax).

Australia does not have any special tax regimes that are uniquely relevant to data transactions. However, Australia has a general research and development tax incentive regime that may be of relevance to particular data transactions.

Australia imposes a goods and services tax, commonly referred to as the 'GST'. Given the broad-based nature of the Australian GST regime, it is likely to apply to most data transactions between independent entities involving an Australian recipient. It is important that entities within a multinational group give consideration to forming a so-called 'GST group' to ensure that such transactions between related parties are disregarded for GST purposes.

In general, assessable income and allowable deductions are determined on an accruals basis in Australia. There is, therefore, a reasonable degree of alignment between tax and accounting outcomes. Where there is a difference between tax and accounting outcomes, a deferred tax asset or liability may arise. In Australia, these rules are governed by AASB 112 *Income Taxes* (which is aligned with IAS 12).

Introduction: Legal background

Under Australian law, there are no property rights in data per se. This is supported by the decision of *Breen v Williams* (1996) 186 CLR 71, in which a patient's asserted proprietary right to access her medical records was unanimously rejected by the High Court of Australia. The Court held that there can be no proprietorship in information as information. The Court recognised two grounds in relation to which such information may be protected in Australia.

First, it may be recognised as copyright. Copyright, under the *Copyright Act 1968*

(Cth), comprises original literary, dramatic, musical and artistic works, sound recordings, cinematograph films, television broadcasts, sound broadcasts and published editions of works. Copyright is not a right in one of these categories, but a right to copy things that fall into one of these categories. Copyright may, therefore, provide protection to data that has 'its own inherent originality' or to the way in which data has been compiled, but not to 'mere' data itself.² This is because mere data points are discrete units of information, not creative expressions in and of themselves. Importantly, the protection is provided only to the author(s) that gathered or organised the collection of data and selected, ordered or arranged its fixation in an original manner, not the person(s) that provided the data.³ The requirement for originality is important because the mere collection of data cannot, without more, be regarded as a compilation to which Australian copyright law provides protection.⁴ The information is not held on trust for the person who provided it.⁵ Therefore, for example, property rights in customer data may belong to the author of the customer list, but not to the customer herself / himself.

Secondly, data may be recognised as confidential information. Where data is treated as confidential information, the owner of that data may be protected against unlawful transmission. An obligation of confidence may arise from the express or implied terms in a contract, or where there is actual or threatened misuse of information with the necessary quality of confidence that is imparted in circumstances importing an obligation of confidence. In other words, the right is not a property right in data *per se*, but a right in contract and/or in equity.⁶ Examples of breaches of confidence could include individuals leaking confidential customer data to media outlets, employees using confidential customer data from a previous employer and companies misusing customer data provided to them for marketing purposes. In each of these cases, the cause of action rests in preventing unlawful misuse of customer data, not in the assertion of hypothetical proprietary rights over the data.

In addition, Australia has strict rules around the collection, use, storage and disclosure of personal information. Whilst these rules do not affect the position that there are no property rights attached to data *per se*, they may empower the individual to whom personal information relates to take action in circumstances in which it has been collected, used, stored or disclosed in a manner inconsistent with domestic law. These rules, contained in the *Privacy Act 1988* (Cth), apply to private businesses (with annual turnover of AUD \$3 million or more) and government agencies.

Part One: Basic principles: Character, source and nexus

1.1. General overview

In Australia, persons (including individuals and corporations) are assessed on income earned. Assessable income is categorised in Australia as 'ordinary income' or 'statutory income'.⁷

² *Data Access Corporation v Powerflex Services Pty Ltd* (1999) 202 CLR 1.

³ *IceTV Pty Ltd v Nine Network Australia Pty Ltd* (2009) 239 CLR 458.

⁴ *Telstra Corporation Ltd v Phone Directories Company Pty Ltd* (2010) 194 FCR 142.

⁵ *Breen v Williams* (1996) 186 CLR 71.

⁶ *Breen v Williams* (1996) 186 CLR 71.

⁷ *Income Tax Assessment Act 1997* (Cth) ('ITAA97'), ss. 6-5, 6-10.

Ordinary income includes income from employment and personal services, income from property and income from business. Income from employment and personal services may include receipts by an individual for the provision of personal data provided that the receipts are of an income nature. Income from property includes royalties of an income nature in accordance with both the common law definition of royalties and the expanded statutory definition of royalties (see section 1.2.1 below). Income from business includes receipts for services and sales (see section 1.2.2 below).

Statutory income is income that is not *prima facie* assessable as ordinary income, but included in assessable income as a result of statutory intervention. Statutory income includes net capital gains, typically referred to in Australia as capital gains tax ('CGT').⁸ CGT has broad application and applies to a wide range of capital transactions ('CGT events') to any kind of property or legal or equitable right ('CGT assets'). The paradigm CGT event is the disposal of a CGT asset,⁹ such as a sale of intellectual property or a right therein, although there are a wide range of other CGT events that may be relevant (see section 1.2.3 below). Statutory income also includes royalties that fall within the ordinary meaning of the term 'royalties' but are not otherwise assessable as ordinary income.¹⁰ Although the overwhelming majority of royalties will be treated and assessed as ordinary income, this provision has the effect of expanding the scope of assessable transactions to include royalties of a capital nature.

The domestic assessment rules apply to both Australian sourced income and foreign sourced income derived by an Australian resident. In the event that more than one jurisdiction asserts taxing rights over some or all of the same amount of income, Australia's double taxation agreement ('DTA') with such jurisdiction (if one exists) will need to be consulted.

1.2. Character

When considering a data transaction from a tax perspective, it is first necessary to characterise the transaction. It may be characterised as a royalty transaction (section 1.2.1), a service or sale (section 1.2.2) or a transaction on capital account (section 1.2.3). In Australia, there is no concept of 'licence fee' for tax purposes, with data transactions described as such likely to be characterised as a royalty or a sale depending on the relevant facts and circumstances. A data transaction is very unlikely to be characterised as a 'lease' under Australian law given such expressions are intimately connected with real property.

1.2.1. Royalty

Although the description of a payment, its form and the way in which it is calculated are important, they are not determinative in characterising a payment as a royalty for tax purposes.¹¹ A royalty, under Australian law, may be characterised as a 'common law royalty', a 'statutory royalty' or a 'capital royalty'. These are considered in turn.

A common law royalty is a payment, on income account, that meets the common law

⁸ ITAA97, s. 102-5.

⁹ ITAA97, s. 104-10.

¹⁰ ITAA97, s. 15-20.

¹¹ IT 2660, [15].

definition of 'royalty' and therefore taxed as income from property (i.e., ordinary income). Common law royalties are income derived from the exploitation of property (including intellectual property) by a grantee of a monopoly under licence or by a landowner in respect of the taking of some special thing forming part of it or attached to it which he / she suffers to be taken.¹² The following indicia may be relevant, but not necessarily determinative, in determining whether a payment is a common law royalty:

- It is for the right to exercise a beneficial privilege or right.¹³
- It is made to the person who owns the rights to confer that beneficial privilege or right.¹⁴ This includes payments to persons to whom the owner has sublicensed rights to receive royalties and to third parties at the direction of the owner.
- It is connected with the amount of usage.¹⁵
- It is payable when the right is exercised.¹⁶ Whilst a lump sum payment does not preclude a characterisation of a payment as a royalty, the payment needs to be an *ex ante* pre-estimate, or *ex post* recognition, of the amount of use made of the right.¹⁷ By contrast, an amount paid to acquire the property, or a right in the property, will not be a royalty, even if paid in instalments.¹⁸
- A statutory royalty is a payment, on income account, that meets the definition of 'royalty' in accordance with statute¹⁹ and therefore treated as ordinary income.²⁰ Without detailing all forms of statutory royalty, the following forms are potentially relevant to data transactions:
 - *Intellectual property or right*: The use of, or the right to use, a copyright, patent, design or model, plan, secret formula or process, trademark, or other like property or right. The Commissioner considers such payments to cover all forms of exploitation other than a transfer of property or right (see section 1.2.3 below).²¹
 - *Knowhow*: The supply of scientific, technical, industrial or commercial knowledge or information. The Commissioner considers such payments to include payments for knowhow, i.e., 'undivulged technical knowledge, information, experience or technique that is necessary for the industrial reproduction of a product process'.²² A data transaction may be characterised as a royalty where a taxpayer is providing access, but not transferring underlying rights, to aggregated data. Although the point at which 'aggregated data' becomes 'knowhow' has not been explored by Australian courts, the aggregated data would likely need to be formatted to such an extent to make it valuable and meaningful not only to the recipient, but also to the provider. Whereas the provision of access to bespoke datasets may, for example, reach this threshold, the provision of access to lightly edited raw data may not.

¹² *Stanton v Commissioner* (1955) 92 CLR 630.

¹³ *McCauley v Commissioner* (1944) 69 CLR 235; *Commissioner v Sherritt Gordon Mines Ltd* (1977) 137 CLR 612.

¹⁴ *Barrett v Commissioner* (1968) 118 CLR 666; *Commissioner v Sherritt Gordon Mines Ltd* (1977) 137 CLR 612.

¹⁵ *McCauley v Commissioner* (1944) 69 CLR 235; *Stanton v Commissioner* (1955) 92 CLR 630; *Commissioner v Sherritt Gordon Mines Ltd* (1977) 137 CLR 612.

¹⁶ *McCauley v Commissioner* (1944) 69 CLR 235; *Stanton v Commissioner* (1955) 92 CLR 630.

¹⁷ *IRC v Longmans Green & Co Ltd* (1932) 17 TC 272.

¹⁸ *Stanton v Commissioner* (1955) 92 CLR 630; *Earle v Commissioner* [1986] QSC 269.

¹⁹ *Income Tax Assessment Act 1936* (Cth) ('ITAA36'), s 6(1).

²⁰ *Case U33* (1987) 87 ATC 250.

²¹ IT 2660, [16].

²² IT 2660, [19].

- *Ancillary assistance*: The supply of any assistance that is ancillary to, and subsidiary to, and is furnished as a means of enabling the application or enjoyment of, any such property, equipment or knowledge mentioned above. The Commissioner considers payments for activities such as implementation, or providing demonstrations or explanations of the use of the property, to amount to royalties.²³ The Commissioner may consider payments for services ancillary to, or part and parcel of, enabling the transfer or use of the intellectual property to be a royalty.²⁴
- *Forbearance*: A total or partial forbearance in respect of the above.
A capital royalty is a payment, on capital account, that meets the common law definition of ‘royalty’. Although the notion of a capital royalty may appear to be an anomaly, a periodic payment connected with the usage of intellectual property (whether in perpetuity or for a finite period) may be characterised as a capital royalty where it is made in exchange for intellectual property. Where such a transaction is also a CGT event, Australia’s anti-overlap provisions would reduce the CGT to the extent that the transaction is otherwise taxable²⁵ (i.e., as capital royalties). Australia’s capital royalty regime is rarely considered in practice.²⁶

1.2.2. *Sales or services income*

Where receipts arising from a data transaction are on income account, but cannot be characterised as royalties, the receipts are likely to be assessable as ordinary business income. The key differentiating characteristic is that royalties are connected to an underlying capital asset (e.g., property or rights), whereas sales and services are not. As both sales and services income are generally taxable as ordinary business income, the distinction between ‘sales’ and ‘services’ is not a legally relevant distinction for Australian tax purposes.

In differentiating sales transactions from royalty transactions, it is important to recall that raw data cannot, without more, be described as property. Therefore, payments for the granting of a licence which allows only simple access to raw data is likely to be characterised as ordinary business income (i.e., a sale).²⁷ Similarly, where a taxpayer is in the business of providing access to data for a fee (and the data has not been aggregated to an extent that it amounts to knowhow), the transaction is likely to be characterised as ordinary business income (i.e., a sale). This is the case regardless of whether the transaction is described as a ‘sale’, a ‘licence’, or otherwise.

In differentiating services transactions from royalty transactions, the Commissioner has provided helpful guidance. Key differentiating characteristics of a service transaction include the following:²⁸

²³ IT 2660, [22].

²⁴ IT 2660, [7], [25].

²⁵ ITAA97, s. 118-20(1).

²⁶ Its main application in Australia is to ensure that amounts received for the felling and removal of trees from land are treated as royalties for tax purposes, even though the transaction might have the character of capital: see *McCauley v Commissioner* (1944) 69 CLR 235; *Stanton v Commissioner* (1955) 92 CLR 630.

²⁷ An analogy may be drawn to a licence for the simple use of software, which is not considered by the Commissioner to be a royalty transaction: TR 2021/D4, [6].

²⁸ IT 2660, [29].

- The contractor performs services (that may result in the creation, development or bringing into existence of property);
- The contractor applies existing knowledge, skill and expertise (i.e., there is not a transfer of pre-existing property, but a use by the contractor of the pre-existing property); and
- Any property created by the service belongs to the buyer without having to obtain any further rights in respect of the property.

Although not conclusive, a common differentiating characteristic is cost. Whereas the provision of access to intellectual property (i.e., a royalty transaction) is unlikely to involve much beyond the copying of existing material, the provision of services is likely to involve a much greater level of expenditure.²⁹ Big data analytics, such as the interpretation or interpolation of big data or the identification or analysis of trends in datasets, would likely be treated as services. However, each case will be determined on its facts and, in certain cases, apportionment may be required.³⁰

1.2.3. *Capital transactions*

1.2.3.1. *General principles*

As is the case in many common law jurisdictions, the distinction between ‘income’ and ‘capital’ for tax purposes is connected with the so-called ‘flow’ principle.³¹

The fundamental relation of ‘capital’ to ‘income’ has been much discussed by economists, the former being likened to the tree or the land, the latter to the fruit or the crop; the former depicted as a reservoir supplied from springs, the latter as the outlet stream, to be measured by its flow during a period of time.

Although this reporter is not aware of an Australian decision concerning the income/capital distinction in respect of modern data transactions, the High Court in *Brent v Commissioner* (1971) 125 CLR 418 heard a case from which modern analogies may be drawn. Charmian Biggs, the wife of an infamous train robber, sold exclusive rights to her life story to a newspaper. Mrs Biggs argued that the moneys received in exchange for her life story (described throughout the judgment as ‘secret information’ and ‘special knowledge’) consisted of a sale of proprietary rights or of rights analogous to rights of property. Justice Gibbs held that an undertaking to impart secret information, like that imparted by Mrs Biggs, cannot be described as ‘parting with property’: ‘Neither knowledge nor information is property in a strictly legal sense, although they can be said to be property in a loose metaphorical sense’. As she was neither selling a capital asset, nor selling access to a capital asset (akin to copyright royalties), Justice Gibbs characterised the transaction as a service.

In *Case W10* (1988) 89 ATC 182, the Administrative Appeals Tribunal considered whether a one-off payment for ‘parting with specialised knowledge and information’ was a royalty or a capital transaction. The Tribunal concluded that as the taxpayer had ‘lost nothing ... other than a diminution in the value of that “know-how”’, it could not be characterised as a capital transaction. Drawing analogies with *Case W10*, a data transaction will not be characterised

²⁹ IT 2660, [30]–[32].

³⁰ IT 2660, [35]–[36].

³¹ *Eisner v Macomber* 252 US 189 (1920).

as a capital transaction unless it involves a CGT event occurring to some underlying ‘property’ or ‘legal or equitable right’ (e.g., the means of collecting data, a valuable database, a curated dataset).

As noted in section 1.1 above, taxpayers are assessed on their statutory income, which includes capital gains.³² It is therefore necessary to determine whether a CGT event has occurred. Potentially relevant CGT events include, but are not necessarily limited to, the following:

- CGT event A1: Disposal of a CGT asset (e.g., a sale);³³
- CGT event B1: The right to use and enjoy a CGT asset passes to another entity and title in the asset will or may pass at or before the end of the agreement with that entity;³⁴
- CGT event C1: A CGT asset is lost or destroyed;³⁵
- CGT event C2: Ownership of an intangible CGT asset ends by the asset being redeemed or cancelled, being released, discharged or satisfied, expiring or being abandoned surrendered or forfeited;³⁶ and
- CGT event D1: A contractual right, or other legal or equitable right, is created in another entity.³⁷

CGT assets include any kind of property.³⁸ Noting that raw data cannot be characterised as property, aggregated data may in some instances amount to property (see section 1.2.1 above). Therefore, transfers of aggregated data (e.g., a manufacturer selling a curated supplier list), may be characterised as a CGT event. (Where the taxpayer is in the business of transferring aggregated data, as might be the case with social media companies, it is more likely to be characterised as an ordinary sale – see section 1.2.2 above.)

In addition, CGT assets include not only property, but a legal or equitable right that is not property.³⁹ Therefore, a transaction that provides rights to raw data collected may, depending on the terms of the contractual arrangement, result in a CGT event where the taxpayer is not in the business of transferring raw data (e.g., a retailer selling rights in customer loyalty data).

1.2.3.2. *Different rules for in-house software and copyright*

Where the capital asset that is connected with the data can be classified as ‘in-house software’ or ‘copyright’, it will be classified as a ‘depreciating asset’.⁴⁰ This entitles the taxpayer to claim a deduction for depreciation. Where a taxpayer ceases holding or using the asset, a so-called ‘balancing adjustment event’ may occur,⁴¹ which results in the taxpayer being assessed (or permitted to deduct) the difference between the ‘termination value’

³² ITAA97, s. 102-5.

³³ ITAA97, s. 104-10.

³⁴ ITAA97, s. 104-15.

³⁵ ITAA97, s. 104-20.

³⁶ ITAA97, s. 104-25.

³⁷ ITAA97, s. 104-35.

³⁸ ITAA97, s. 108-5(1)(a).

³⁹ ITAA97, s. 108-5(1)(b).

⁴⁰ ITAA97, s. 40-30(2).

⁴¹ ITAA97, s. 40-295(1).

(in most cases, the amount received) and 'adjustable value' (in most cases, the cost *less* accumulated tax depreciation). Where such a 'balancing adjustment event' is also a 'CGT event' – which is likely to be the case where there is a transfer of in-house software or copyright – the balancing adjustment rules prevail.⁴²

1.3. Source

Under Australian law, a non-resident taxpayer is assessed on income it derives from Australian sources.⁴³ Noting that Australian legislation does not establish the boundaries of 'source', Isaacs J in *Nathan v Commissioner* (1918) 25 CLR 183 describes 'source' as 'a practical, hard matter of fact' rather than a 'legal concept'.⁴⁴ Australian courts require a sufficient link between the jurisdiction and the relevant property or activity,⁴⁵ with the determination of source focused on what *caused* any profit or gain to be.⁴⁶

In addition to these general concepts, legislative intervention has meant that a royalty is also deemed to have an Australian source where it is paid or credited to a non-resident taxpayer by:

- A resident taxpayer (except where it is an expense incurred in a business carried on outside Australia through a permanent establishment);⁴⁷ or
- A non-resident taxpayer to the extent that the outgoings are incurred in carrying on business in Australia through a permanent establishment.⁴⁸

In the case of royalties paid by an Australian taxpayer to a non-resident taxpayer, the transaction is likely to have a deemed Australian source. Therefore, subject to any DTA (see Part Two below), the non-resident taxpayer is likely to be subject to Australian tax.

In the case of royalties paid between non-resident taxpayers that are somehow connected to Australian data, a court will need to consider the practical question of source. Relevant considerations may include, but are not necessarily limited to, the subject matter of the data, where the data is stored, where the intellectual property is owned and how it came into existence (e.g., where any underlying contracts were negotiated or concluded).

In the case of a service provided by a non-resident taxpayer, the transaction is likely to have a foreign source unless the services are physically performed in Australia. However, the mere fact that the services are physically performed in Australia does not necessitate an outcome that the services have an Australian source, with each case dependent on its facts.⁴⁹ In certain circumstances, the location of negotiating and concluding the service contract may be of particular importance.⁵⁰

In the case of an ordinary sale made by a non-resident, determining the source will be heavily fact dependent. An Australian court may consider, amongst other things, where any

⁴² ITAA97, s. 118–24.

⁴³ ITAA97, ss. 6–5(3) (a), 6–10(5) (a).

⁴⁴ See also *Commissioner v Mitchum* (1965) 113 CLR 401; *Esquire Nominees Ltd v Commissioner* (1972) 129 CLR 177; *Spotless Services Ltd v Commissioner* [1993] FCA 368.

⁴⁵ See, eg, *Commissioner v United Aircraft Corporation* (1943) 68 CLR 525.

⁴⁶ See, eg, *Agius v Commissioner* [2015] FCA 707; *Thorpe Nominees Pty Ltd v Commissioner* (1988) 19 ATR 1834.

⁴⁷ ITAA36, s. 6C(3).

⁴⁸ ITAA36, s. 6C(4).

⁴⁹ *Commissioner v Mitchum* (1965) 113 CLR 401; *Agius v Commissioner* [2015] FCA 707.

⁵⁰ See, eg, *Commissioner (NSW) v Meeks* (1915) 19 CLR 568.

sales activity takes place, the subject matter of the sale and where the subject matter of the sale is stored. The focus is likely to be on whether the sales activity (e.g., valuable sales & marketing activities), the subject matter of the sale (e.g., valuable data) or the storage of the subject matter (e.g., valuable server) can be said to be the true source of the profit.

In the case of proceeds arising from a capital transaction, the source is likely to be where the underlying intellectual property is owned. Other considerations may include, where relevant, how the intellectual property came into existence and where any contracts were negotiated or concluded.

1.4. Nexus

1.4.1. *Domestic permanent establishment rules*

Under Australian law, there is no strict concept of 'nexus'. However, a foreign company is prima facie taxable in Australia to the extent to which it carries on a business in Australia at or through a particular place.⁵¹ There is no requirement that such place is *fixed*, thereby resulting in a broader domestic permanent establishment definition than that provided by article 5(1) of the OECD Model Tax Convention ('MTC').

Without limiting the domestic definition, Australia recognises a permanent establishment where a business is carried on through an agent except where an exclusion applies.⁵² The most important exception is where the agent does not have, or does not habitually exercise, a general authority to negotiate and conclude contracts on behalf of its principal.⁵³ By expressing the test in the negative (i.e., all agents, subject to exclusions), it is broader than the positive 'dependent agent' test provided by article 5(5) of the OECD MTC.

Although Australia's domestic nexus rules rely on the physical presence of people or property, highly digitalised business models are often less dependent on such physical presence to create value. There are no special nexus rules that exist in Australia that could apply to remote data transactions as at the time of writing, such as 'significant economic presence' rules, but it is an area in relation to which the Australian Treasury has recently sought feedback through a consultation process.⁵⁴

1.4.2. *Domestic profit attribution rules*

Australia's domestic profit attribution rules, contained in Subdivision 815-C of the ITAA97, are based on the 'Relevant Business Activity' approach which attributes profits between a head office and its permanent establishment by allocating only third party income and expenses. Australia has not yet adopted the Authorised OECD Approach (also known as the 'functionally separate entity' approach) as articulated in its 2010 *Report on the Attribution of Profits to Permanent Establishments*.

⁵¹ ITAA36, s. 6(1).

⁵² ITAA36, s. 6(1)(a), (e)-(g).

⁵³ ITAA36, s. 6(1)(f)(i).

⁵⁴ Australian Treasury, *Treasury Discussion Paper: The digital economy and Australia's corporate tax system* (October 2018), [4.5].

Part Two: Application of treaty principles

2.1. General overview

Australia's DTAs are embedded into domestic Australian law via the *International Tax Agreements Act 1953* (Cth). The provisions of this Act (and, therefore, the provisions contained in the DTAs) have effect notwithstanding anything inconsistent with those provisions contained in other domestic Acts imposing Australian tax other than Part IVA of the ITAA36, which contains Australia's anti-avoidance rules.⁵⁵

At the time of writing, Australia has DTAs with 45 jurisdictions. These treaties are largely based on the OECD MTC, including article 5 (Permanent Establishment), article 7 (Business Profits), article 9 (Associated Enterprises) and article 12 (Royalties).

Although there are subtle differences between domestic permanent establishment, profit attribution and transfer pricing rules and those provided by DTAs, the differences are unlikely to be of much practical significance in respect of data transactions (see sections 2.2.1 and 2.2.2 below). The Royalties article contained in Australia's DTAs, however, may modify how payments arising from certain data transactions are characterised and reduce the extent to which Australia withholds tax on outbound payments (see section 2.2.3 below).

2.2. Detailed comments

2.2.1. *Permanent establishments and profit attribution*

As noted in section 1.4.1 above, Australia's domestic permanent establishment definition is broader than that provided in article 5 of the MTC. Despite the Permanent Establishment articles in Australia's DTAs being based on article 5 of the MTC, many of them vary in form and in substance. In addition to the standard 'fixed place of business', 'dependent agent' and 'building site or construction' permanent establishment rules that can be found in most of Australia DTAs, many also contain provisions for services permanent establishments (see section 2.2.1.1), substantial equipment permanent establishments (see section 2.2.1.2) and manufacturing or processing permanent establishments (see section 2.2.1.3).

Australia's domestic profit attribution rules, contained in Subdivision 815-C of the ITAA97, are largely aligned with the profit attribution rules found in the Business Profits articles of Australia's DTAs. As noted in section 1.4.2 above, Australia has not yet adopted the Authorised OECD Approach to profit attribution. Therefore, the language used in the Business Profits articles of Australia's DTAs have not been updated to reflect the Authorised OECD Approach.

2.2.1.1. *Services permanent establishments*

Services permanent establishments are deemed permanent establishments where services, including consultancy or managerial services, are performed through employees or other personnel engaged for such purpose for a specified aggregate period. Services permanent

⁵⁵ *International Tax Agreements Act 1953* (Cth), s. 4(2).

establishments are not uncommon and can be found in article 5(3)(b) of the United Nations Model Double Taxation Convention ('UN MDTC').⁵⁶

Acknowledging that service permanent establishments are likely also to be 'fixed place of business' permanent establishments, this added definition may be relevant where the services are provided for short periods of time and/or the 'fixed' criterion of the definition is difficult to prove. Although there is limited experience of services permanent establishments in Australia, this reporter considers its role may be of growing importance as remote and virtual working in respect of data transactions becomes increasingly common.

2.2.1.2. Substantial equipment permanent establishments

Substantial equipment permanent establishments are deemed permanent establishments for substantial equipment being used in a contracting state by, for, or under contract with, the enterprise resident in the other contracting state. Substantial equipment permanent establishments are unique to Australia and New Zealand,⁵⁷ with no Commentaries provided in either the OECD MTC or UN MDTC.

Substantial equipment permanent establishment rules are primarily designed to ensure that all activities and significant assets connected with the exploitation of natural resources are appropriately taxed in Australia (e.g., remote mining activities, use of significant mining equipment, entering into bareboat chartering agreements). However, these rules may have wider application. In the context of data transactions, there is a theoretical possibility that a permanent establishment may be recognised where an enterprise uses an Australian server or Australian data centre. Although the OECD MTC Commentaries briefly explore whether a server is a fixed place of business,⁵⁸ it is possible that a substantial equipment clause may have broader application than a 'fixed place of business' permanent establishment. This issue has not been explored by Australian courts.

2.2.1.3. Manufacturing and processing permanent establishments

Manufacturing and processing permanent establishments are deemed permanent establishments where an enterprise manufactures or processes goods or merchandise. Manufacturing and processing establishments are unique to Australia,⁵⁹ with no Commentaries provided in either the OECD MTC or UN MDTC.

Notwithstanding the 'processing' language found in many of Australia's DTAs, it is unlikely to be extended to the processing of data given the inherently physical nature of 'goods or merchandise'. Although this issue has not been explored by Australian courts, it is unlikely that manufacturing or processing permanent establishments are of relevance to data transactions.

2.2.2. Transfer pricing

⁵⁶ See also OECD MTC 2017, Commentaries on art 5, [132]-[169].

⁵⁷ OECD MTC 2017, Reservations on art 5(1), [188], [195].

⁵⁸ OECD MTC 2017, Commentaries on art 5, [123]-[131].

⁵⁹ OECD MTC 2017, Reservations on art 5(1), [188].

Australia's domestic transfer pricing rules, primarily contained in Subdivision 815-B of the ITAA97, are largely aligned with the transfer pricing rules as found in the Associated Enterprises articles of Australia's DTAs and as articulated by the OECD Transfer Pricing Guidelines (which are a relevant interpretative tool to both domestic transfer pricing law 'to the extent they are relevant'⁶⁰ and the relevant DTA). This is explored further in section 3.2 below.

In addition, Australia has two targeted anti-avoidance rules that may need to be considered in conjunction with Australia's domestic transfer pricing provisions, namely:

- The multinational anti-avoidance law ('MAAL'), which targets specific schemes designed to limit a taxable presence in Australia.⁶¹ These are schemes in which foreign entities make supplies to Australian customers where the relevant activities are undertaken in Australia, but the associated profit is not attributable to an Australian permanent establishment. MAAL is loosely based on the 'avoided permanent establishment' limb of the UK's diverted profits tax.⁶²
- The diverted profits tax ('DPT'), which targets specific schemes designed to shift profits to foreign, low-tax affiliates lacking economic substance.⁶³ These are schemes involving a foreign associate of a taxpayer with a purpose of obtaining an Australian tax benefit (or both an Australian and foreign tax benefit) unless the profit made by the entities reasonably reflects the economic substance of their activities or the foreign tax liability equals or exceeds 80% of the reduced Australian tax liability. DPT is loosely based on the 'insufficient economic substance' limb of the UK's diverted profits tax.⁶⁴

2.2.3. Royalties

The specific provisions contained in the Royalties articles of Australia's DTAs differ slightly in how 'royalties' are defined, how taxing rights are allocated and the extent to which withholding tax may be imposed. Therefore, the character of certain data transactions and the corporate tax consequences may need to be reconsidered by reference to the specific provisions of the relevant DTA. Specific observations are considered below.

First, even though a data transaction that can be characterised as a payment for access to knowhow may be treated as a royalty under domestic Australian law, it may not under the terms of Australia's DTA with Chile and New Zealand. Although most DTAs define royalties as including payments made as consideration for the supply of specified knowledge or information (or equivalent wording), Australia's DTAs with Chile and New Zealand define such royalties more narrowly. These DTAs characterise such payments as royalties only where they are made as consideration for the supply of specified information concerning *specified experience*.⁶⁵ The narrowing of the scope may result in payments for certain data transactions that would be characterised as royalties under domestic law, re-characterised as ordinary business payments where the data cannot be connected to specified experience

⁶⁰ ITAA97, s 815-135; *Commissioner v Glencore Investment Pty Ltd* [2020] FCAFC 187.

⁶¹ ITAA36, s. 177DA.

⁶² *Finance Act 2015* (UK), s 86.

⁶³ ITAA36, ss. 177H–177R.

⁶⁴ *Finance Act 2015* (UK), ss. 80–1.

⁶⁵ Australia–New Zealand DTA, Art 12(3)(b); Australia–Chile DTA, art. 12(3)(d).

and, therefore, escape withholding tax. The relevant DTA will need to be consulted on each occasion.

Second, even though a technical or consultancy service is unlikely to be treated as a royalty under domestic Australian law, it may be treated as such under the terms of Australia's DTA with India.⁶⁶ Such a characterisation is likely to have consequences in the allocation of taxing rights and the imposition of withholding tax.

Third, many of Australia's DTAs contain 'source of income' provisions. These provisions deem certain forms of income that may be taxed in one jurisdiction to have a source of the other jurisdiction (e.g., royalties paid by an Australian resident deemed to have an Australian source). Although these partially mirror domestic Australian law in respect of royalties (see section 1.2.1 above), they controversially may operate in conjunction with other provisions in the DTA to expand Australia's tax base beyond that provided by domestic law. These 'source of income' provisions were considered together with the expanded royalty definitions in *Tech Mahindra Ltd v Commissioner* [2016] FCAFC 130 and *Satyam Computer Services Ltd v Commissioner* [2018] FCAFC 172. In these cases, an Indian resident taxpayer provided IT services to Australian customers, partly from India and partly from Australia (through an Australian permanent establishment). The payments referable to the services performed in India were characterised as royalties under the expanded DTA definition and deemed to have an Australian source even though, under domestic law, they would not. Although a number of commentators have suggested that *Tech Mahindra* and *Satyam* breach the widely accepted principle that a DTA can only ever be used as a 'shield', not a 'sword', the taxpayers' applications for special leave to appeal to the High Court were denied in these cases.

Under domestic Australian law, royalties paid by an Australian taxpayer to a foreign recipient are subject to a 30% withholding tax. Where the counterparty is tax resident in a jurisdiction with which Australia has a DTA, the amount of tax charged will be capped as follows:

Rate	Jurisdiction
5%	Finland, France, Germany, Israel, Japan, New Zealand, Norway, South Africa, Switzerland and United Kingdom
10%	Austria, Belgium, Canada, Czech Republic, Denmark, Hungary, Ireland, Italy, Malta, Mexico, Netherlands, Papua New Guinea, People's Republic of China, Poland, Romania, Russia, Singapore, Slovakia, Spain, Sri Lanka, Sweden, Turkey, United States and Vietnam
12.5%	Chinese Taipei
15%	Fiji, Kiribati, Republic of Korea and Thailand
Variable	Chile (5–10%) Argentina, India, Indonesia and Malaysia (10–15%) Philippines (15–25%)

⁶⁶ Australia–India DTA, art. 12(3)(d).

It is important to note, however, that where royalties paid are ‘effectively connected’ with a permanent establishment of a taxpayer of either contracting jurisdiction, these withholding tax concessions may not apply.⁶⁷ In other words, a foreign taxpayer with an Australian permanent establishment may be subject to 30% withholding tax on outbound royalty payments attributed to the permanent establishment. The specific wording of the relevant DTA will need to be consulted in each case.

Part Three: Transfer pricing

3.1. Overview of transfer pricing framework

Australia’s core domestic transfer pricing rules are contained in Subdivision 815-B of the ITAA97.⁶⁸ These rules are based on article 9 of the OECD MTC and the core principles contained in OECD transfer pricing guidance. It is important to note that the identification of arm’s length conditions, as required by domestic Australian law, must be undertaken in such a way that best achieves consistency with the OECD Transfer Pricing Guidelines 2017.⁶⁹ They are to be interpreted consistently with the Guidelines ‘to the extent they are relevant’.⁷⁰

There are two main distinctions between domestic Australian transfer pricing law and OECD transfer pricing guidance. First, there is no threshold ‘associated enterprises’ test. Therefore, the domestic rules may have wider application than those provided by the DTA (e.g., joint venture parties, economically interdependent entities).

Secondly, domestic Australian law contains explicit reconstruction rules that require the re-characterisation of transactions where form does not match substance or where independent entities would have entered into other commercial or financial relations, or the annihilation of transactions where independent entities would not have entered into commercial or financial relations at all. Although these are broadly aligned with the ‘exceptional’ reconstruction principles articulated in the 1995 and 2010 OECD Transfer Pricing Guidelines, the majority (Middleton and Steward JJ) in *Commissioner v Glencore Investments Pty Ltd* [2020] FCAFC 187 considered that Australia’s general transfer pricing framework permits the substitution of contractual terms pertaining to price with arm’s length pricing terms (e.g., pricing methodologies and formulae) without the need to rely upon domestic reconstruction rules or the OECD’s reconstruction framework. In a separate judgment, Thawley J considered Australia’s general transfer pricing framework to go even further, indicating that contractual terms may be substituted with arm’s length terms, even terms that do not define price, without the need to rely upon domestic reconstruction rules or the OECD’s reconstruction framework. Further, Thawley J did not consider the ability of the Commissioner or the court to reconstruct transactions to be limited by the ‘exceptional’ cases noted by the Guidelines. Although this area of law is yet to be settled, this reporter is noticing the potential emergence of a uniquely Australian requirement for all intercompany contractual terms (or, at the very least, those pertaining to price) to meet an undefined

⁶⁷ See OECD MTC, arts. 7(1), 12(3).

⁶⁸ Australia’s historical transfer pricing rules can be found in former Division 13 of the ITAA36. See also Subdivisions 815-A (transitional rules), 815-C (permanent establishments) and 815-D (trusts and partnerships) of the ITAA97.

⁶⁹ ITAA97, s. 815-135(2)(a).

⁷⁰ *Commissioner v Glencore Investment Pty Ltd* [2020] FCAFC 187.

‘commercial rationality’ test *without* deference to domestic reconstruction rules or OECD reconstruction principles.⁷¹

3.2. Application of transfer pricing principles

Where an Australian tax resident entity obtains a ‘transfer pricing benefit’ from conditions that operate between it and another entity in connection with their commercial or financial relations, those conditions are taken not to operate and, instead, the ‘arm’s length conditions’ are taken to operate.⁷² A transfer pricing benefit includes under-recognising taxable income, under-recognising withholding taxes, over-recognising tax losses and over-recognising tax offsets.⁷³ Arm’s length conditions are those that might be expected to operate between independent entities dealing wholly independently with one another in comparable circumstances.

Under general transfer pricing principles, it is first necessary to identify the commercial or financial relations that exist between the entities. This requires a broad-based understanding of the relevant industry and of the factors affecting financial performance. It is then necessary to delineate and define the actual transaction in question, including an identification of the economically relevant characteristics. These include the relevant contractual terms, the functions performed by the parties (taking into account assets used and risks assumed), the characteristics of property transferred or services provided, the relevant economic circumstances and the relevant business strategies.⁷⁴

The characterisation of an intercompany data transaction (as, e.g., a royalty, a service fee, a sale, a capital transaction) is likely to have a strong impact on the most appropriate transfer pricing method to review its arm’s length nature. Whilst this characterisation will typically inform any subsequent transfer pricing analysis, complex withholding tax issues may arise where an intercompany data transaction is completely or partially priced on a residual profit basis. Residual profit payments are not uncommon where the profitability (or target profitability) of an entity in a multinational group is established by reference to group transfer pricing policy. In such circumstances, the residual profit payments need to be apportioned into ‘royalty’ and ‘non-royalty’ components for withholding tax purposes. There are no strict rules of apportionment, with each payment to be dissected based on all relevant facts and circumstances.⁷⁵

⁷¹ See also *Chevron Australia Holdings Pty Ltd v Commissioner* (2017) 251 FCR 40; *Glencore Investment Pty Ltd v Commissioner* (2019) 272 FCR 30.

⁷² ITAA97, s. 815-115(1).

⁷³ ITAA97, s. 815-120(1).

⁷⁴ OECD Transfer Pricing Guidelines (2017), paras 1.34-1.36.

⁷⁵ IT 2660, [13].

Part Four: Special regimes

4.1. General overview

There are no special tax regimes that are uniquely relevant to data transactions, such as digital or data taxes, virtual permanent establishment thresholds or digital or data services withholding taxes. Australia does not have a digital services tax ('DST'), but has recently considered one (see section 4.2 below). Australia has a research and development ('R&D') tax offset regime that may be relevant to certain data transactions (see section 4.3 below). Australia recognises and taxes barter transactions in certain circumstances, but not to the extent that it recognises the provision of data by users in exchange for 'free services' as a taxable event (see section 4.4 below).

4.2. DST

In October 2018, the Australian Government announced a consultation into Australia's response to the tax challenges arising from the digital economy. Following this announcement, the Australian Treasury released a Discussion Paper, entitled *The digital economy and Australia's corporate tax system*. This Paper included questions for consultation, with a particular focus on whether Australia should pursue 'interim measures', such as a DST.

In response to this Paper, a wide range of stakeholders raised objections to the appropriateness of pursuing a unilateral solution to what was perceived to be a multilateral problem. In light of this, and the progress made by the OECD Inclusive Framework on BEPS, the Australian government announced in March 2019 that it would not proceed with an interim measure, such as a DST, at that time. A DST has not been expressly ruled out, but it is unlikely given the expected implementation of the OECD's Pillar One reforms in the near future.

4.3. Incentives

Australia offers a 38.5% non-refundable tax offset for eligible R&D activities performed by eligible entities.⁷⁶ This rate is reduced to the Australian company tax rate to the extent to which its notional R&D deductions exceed \$100 million (currently, 30%).⁷⁷ The R&D activities must be registered with the Department of Industry, Innovation and Science before the tax offset can be claimed.

Entities are eligible for the R&D tax offset if they are Australian incorporated, foreign incorporated but Australian tax resident, or foreign incorporated but carries on business in Australia through a permanent establishment (as defined under the relevant DTA). Activities are eligible for the R&D tax offset if they are performed in Australia⁷⁸ and can be

⁷⁶ Australia also offers a 43.5% refundable tax offset for eligible R&D activities performed by entities with an aggregated turnover of less than \$20 million per annum.

⁷⁷ The company tax rate is 26% for companies with aggregated turnover of less than \$50 million (for the 2021 financial year), falling to 25% (for the 2022 financial year).

⁷⁸ R&D activity with a significant scientific link to Australian core activities that is unable to be conducted within Australia that is less than that incurred on Australian core activities.

characterised as 'core R&D activities' (i.e., certain experimental activities)⁷⁹ or 'supporting R&D activities' (i.e., activities directly related to, or in some circumstances undertaken for the dominant purpose of supporting, core R&D activities). Notional R&D deductions need to be at least \$20,000 and include direct expenditure, the decline in value of capital assets and balancing adjustments (e.g., losses on the sale of capital assets).

In general, an Australian entity can only claim the tax offset if it is the major beneficiary of the eligible R&D activities. The exceptions are if the R&D activities are conducted by an Australian entity for an associated foreign corporation that is a resident of a jurisdiction with which Australia has a DTA or if the activities are performed by a foreign corporation that is a resident of a jurisdiction with which Australia has a DTA through a permanent establishment in Australia.⁸⁰

4.4. Barter treatment

For income tax purposes, income may be in the form of cash or something that is readily convertible to cash.⁸¹ It therefore has long been established that the receipt of 'something of money's worth (e.g., goods) instead of the money' may be treated as income.⁸² Barter transactions are, therefore, potentially assessable and deductible. Historical examples include debentures in lieu of interest payments,⁸³ coal in exchange for rent⁸⁴ and shares in exchange for services.⁸⁵

In barter transactions, the money value of the in-kind consideration shall be deemed to have been paid or given.⁸⁶ Money value is considered to be 'the price which a willing but not anxious vendor could reasonably expect to obtain, and a hypothetical but not anxious purchaser could reasonably expect to have to pay'.⁸⁷ This equates certain barter transactions with normal cash or credit transactions for income tax purposes. This principle applies equally for goods and services tax ('GST') purposes (see Part Five below).

The Commissioner has never, to this reporter's knowledge, considered the exchange between users, in providing data, and digital businesses, in providing access to 'free' digital services, to have income tax consequences. In any event, it is difficult to see how user data, even if valuable, could be described as being readily convertible to cash (or, for that matter, having any 'market value'). It is, in this reporter's opinion, more akin to a business undertaking market research surveys, the responses to which have never been considered taxable. This reporter does not see this position as likely to change in the foreseeable future in Australia.

⁷⁹ The outcome cannot be known or able to be determined in advance. It can only be determined by applying a systematic progression of work based on principles of established science proceeding from hypothesis to experiment, observation and evaluation, leading to logical conclusions, conducted for the purpose of generating new knowledge.

⁸⁰ *Industry Research and Development Act 1986* (Cth).

⁸¹ *Tennant v Smith* [1892] AC 150; *Commissioner v Cooke & Sherden* (1980) 80 ATC 4140.

⁸² *Cross v London & Provincial Trust Ltd* (1938) 1 All ER 428.

⁸³ *Scottish & Canadian General Investment Co Ltd v Easson* (1922) 8 TC 265.

⁸⁴ *IR Commissioners v Baillie* (1936) 20 TC 187.

⁸⁵ *Case D1* (1953) 4 TBRD.

⁸⁶ ITAA36, s. 21(1), reflecting the established case law position.

⁸⁷ *Case T39* (1967) 18 TBRD.

Part Five: Indirect tax

5.1. General principles

Australia imposes a broad-based consumption tax, known as the GST, on taxable supplies. An entity registered for GST makes a taxable supply if (a) it makes a supply for consideration, (b) the supply is made in the course or furtherance of an enterprise the taxpayer carries on, and (c) the supply is connected with Australia.⁸⁸

A 'supply' is defined broadly and includes, but is not limited to, supplies of goods or services, a provision of advice or information, a creation, grant, transfer, assignment or surrender of any right and an entry into, or release from, an obligation.⁸⁹ The term 'consideration' includes any payment (or act or forbearance) in connection with a supply or in response to (or for the inducement of) a supply.⁹⁰ Therefore, as with income tax, consideration may include not only the payment of money, but also barter transactions such as the provision of goods or services.

The term 'in the course or furtherance of an enterprise' is not defined, but is interpreted broadly. Any supply that is connected to an enterprise is generally considered to be made in the course or furtherance of that enterprise.⁹¹

The supply is connected with Australia if:⁹²

- Goods are delivered, or made available, to an Australian recipient;
- Goods are being removed from, or imported into, Australia;
- The supply is of Australian real property or land;
- The supply is done in Australia;
- The supply is made through an enterprise carried on in Australia; or
- The recipient is an Australian consumer.

A supply is not a taxable supply to the extent that it is 'GST-free' or 'input taxed'. GST-free supplies include, but are not limited to, certain food items, healthcare, education, childcare, exports and supplies of going concerns.⁹³ Input taxed supplies include, but are not limited to, certain financial supplies, residential rent and residential premises.⁹⁴ GST is not imposed on GST-free or input taxed supplies.

An entity is entitled to 'input tax credits' (i.e., a GST refund) if it makes a 'creditable acquisition'. An entity registered for GST makes a creditable acquisition if (a) it acquires anything solely or partly for a creditable purpose, (b) the supply is a taxable supply, and (c) it provides, or is liable to provide, consideration for the supply.

An 'acquisition' is defined broadly and includes, but is not limited to, acquisitions of goods or services, a receipt of advice or information, an acceptance of a grant, transfer, assignment or surrender of any right and an acquisition of a right to require another person to do anything, refrain from an act or tolerate an act or situation.⁹⁵

⁸⁸ A New Tax System (Goods and Services Tax) Act 1999 (Cth) ('ANTS (GST) Act 1999'), s 9-5.

⁸⁹ ANTS (GST) Act 1999, s. 9-10(2).

⁹⁰ ANTS (GST) Act 1999, s. 9-15(1).

⁹¹ *Commissioner v Reliance Carpet Co Pty Ltd* (2008) 68 ATR 158.

⁹² ANTS (GST) Act 1999, s. 9-25(1)-(5).

⁹³ ANTS (GST) Act 1999, Division 38.

⁹⁴ ANTS (GST) Act 1999, Division 40.

⁹⁵ ANTS (GST) Act 1999, s. 11-10.

Whilst transactions between related parties are, *prima facie*, subject to the same GST rules as transactions between unrelated parties, Australia's GST regime permits members of a corporate group to form a so-called 'GST group'. The main benefit of forming a GST group is that it is treated as a single entity, with intragroup transactions therefore disregarded for GST purposes.⁹⁶

5.2. Data transactions

Unlike Australia's corporate income tax regime, the inability to classify data as 'property' and the inherent challenges in characterising certain data transactions are unlikely to affect the applicability of GST. Given the broad-based nature of Australia's GST regime, the following generalisations can be made.

First, data transactions between unrelated Australian tax resident companies are likely to be subject to GST, regardless of whether the transaction is a raw data transaction, an aggregated data transaction or the provision of big data analytics: the taxpayer makes a supply, for consideration, in the course or furtherance of an enterprise it carries on, that is connected with Australia. Therefore, regardless of the characterisation of the data transaction as a sale on income account, a sale on capital account, a service, a royalty, or otherwise, GST should apply. If the companies are related and form a GST group, the transaction is likely to be disregarded for GST purposes.

Second, a data transaction between an Australian tax resident recipient and a foreign supplier (i.e., import) is likely to be subject to GST. Even though the supplier (of, e.g., raw data, aggregated data or big data analytics) is foreign, it is still connected to Australia. This would likely require the foreign supplier to remit GST. The obligation to remit GST may be transferred from the supplier to the recipient, however, where the supplier does not carry on an enterprise in Australia and signs a 'reverse charge' agreement with the recipient.⁹⁷ If the companies are related and form a GST group, the transaction is disregarded for GST purposes.

Third, a data transaction between an Australian tax resident supplier and a foreign recipient (i.e., export) is unlikely to be subject to GST. Even though it is *prima facie* likely to be a taxable supply, supplies of things for consumption outside of Australia are GST-free.⁹⁸

Finally, a data transaction between two foreign tax residents is unlikely to be subject to GST unless it can be shown that the relevant 'thing' was 'done' in Australia or the supply was through an enterprise carried on in Australia by the supplier.⁹⁹ To be connected with Australia, therefore, the relevant activity needs to be performed in Australia (e.g., the underlying data transfer, the underlying service). The fact that data may pertain to, for example, Australian citizens, is of no relevance.

⁹⁶ *ANTS (GST) Act 1999*, Division 48.

⁹⁷ *ANTS (GST) Act 1999*, s. 83-5.

⁹⁸ *ANTS (GST) Act 1999*, s 38-190.

⁹⁹ *ANTS (GST) Act 1999*, s. 9-25(s).

Part Six: Tax accounting

Australia's accounting standards are developed, issued and maintained by the Australian Accounting Standards Board ('AASB'). The AASB issues Australian versions of the international accounting standards ('IAS') developed, issued and maintained by the International Accounting Standards Board ('IASB'). Australian accounting standards are drafted, and are intended to be interpreted, in a manner consistent with international accounting standards. Since 2005, the AASB has mandated entities reporting under the *Corporations Act 2001* (Cth) to apply International Financial Reporting Standards ('IFRS').

Key documents in respect of data transactions include, but are not limited to, the AASB *Conceptual Framework for Financial Reporting* (which is materially the same as the IASB document of the same name), AASB 118 *Revenue* (which is materially the same as IAS 18) and AASB 138 *Intangible Assets* (which is materially the same as IAS 38). All revenue, expense, asset and liability recognition principles are consistent with international accounting principles.

In general, assessable income and allowable deductions are determined on an accruals basis in Australia. Therefore, there is a reasonable degree of alignment between tax and accounting outcomes. Key differences that may be relevant when considering data transactions include, but are not limited to:

- Differences between depreciation and amortisation rules for tax and accounting purposes, thereby potentially giving rise to a taxable or deductible temporary difference;
- Differences between asset values for accounting purposes and capital bases for CGT purposes, thereby potentially giving rise to a taxable or deductible temporary difference; and
- The ability to claim an R&D tax offset, giving rise to a permanent difference.

The accounting rules governing the recognition of deferred tax assets and liabilities are contained in AASB 112 *Income Taxes* (which is materially the same as IAS 12). This reporter is not aware of any areas of material uncertainty or anomalous results for big data transactions that are particularly unique to Australia.

Part Seven: Other

This reporter is not aware of any other tax issues that may be relevant to data transactions in Australia.

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International Tax Agreements Act 1953 (Cth)
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7. Other documents

AASB, Conceptual Framework for Financial Reporting

AASB 112 Income Taxes

AASB 118 Revenue

AASB 138 Intangible Assets

IASB, Conceptual Framework for Financial Reporting

IAS 12 Income Taxes

IAS 18 Revenue

IAS 38 Intangible Assets

Summary and conclusions

- As for the relevant legal background applicable to big data transactions, Austria has implemented EU legislation, including the EU Database Directive, the Trade Secrets Directive and General Data Protection Regulation (GDPR). However, the Austrian legal system does not recognize a property right in data *per se*, and contractual agreement dominates the “market for data”.
- In Austria, there is no specific (direct) tax legislation relating to data transactions such as “raw data transactions”, “aggregated data transactions”, and “big data analytics”. Instead, the general rules of the Austrian Income Tax Act (*Einkommensteuergesetz*, “EStG”) and the Corporate Income Tax Act (*Körperschaftsteuergesetz*, “KStG”) apply. This means that the income from such transactions derived by resident taxpayers will usually qualify as ordinary business income. If the income is derived by a non-resident, it also qualifies as business income which is only subject to limited tax liability in Austria, if it is derived through a permanent establishment in Austria. Income from data transactions does not qualify as royalty income which could be taxed in Austria irrespective of a permanent establishment. This is because raw data and aggregated data do not constitute rights under copyright law, commercial know-how or other rights; consequently, payments for the use of them are not considered as royalties in terms of the EStG.
- Generally, Austria’s treaty practice follows the OECD Model, so that line-drawing between business profits (articles 7), royalties (article 12), capital gains (article 13) and other income (article 21) is relevant. The UN Model, which sometimes forms a foundation for bilateral treaties, includes further provisions that may apply in the context of data transactions: technical services (article 12A) and, prospectively, automated digital services (article 12B). There is very little domestic guidance on the application of these treaty provisions to data transaction. Arguably, however, (1) the mere fact that the relevant data is collected from a particular state or the data is bought and/or used by a taxpayer in a particular state would not create nexus under existing treaty rules; (2) the mere use of server capacity does not create a permanent establishment, implying that infrastructure-as-a-service (IaaS) transactions will be treated as services (so that they are characterised as business profits for treaty purposes); (3) the Austrian tax authorities may treat user data as “equipment” in terms of article 12 UN Model; and (4) collecting,

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organizing and structuring data may be qualified as a “technical service” within the meaning of specific royalty articles in the Austrian treaty network.

- In Austria, no specific transfer pricing guidance applies for the transfer of data or for the provision of goods or services where the value or efficiency has been enhanced by an enterprise's use of big data. Instead, the application of the arm's length principle to such transactions has to be based on the general guidance provided in the OECD Transfer Pricing Guidelines (TPG). The Austrian tax authorities take the position that tax treaties in general are interpreted dynamically and that the OECD TPG in their latest version have to be applied. This means that currently, the OECD TPG 2017 are applicable in Austria, including the latest guidance for intangibles.
- In 2020, Austria introduced new legislation which provides for a revenue-based digital business tax of 5% on online advertising, i.e., the Digital Tax Act 2020 (*Digitalsteuergesetz* 2020). From an Austrian perspective this act is viewed primarily as an addition to the existing tax regime and not as a special tax for digital corporations, as Austria already has a corresponding “traditional” advertising tax for print, broadcasting etc. since 2000. The Digital Tax Act applies to online advertising services with effect from 1 January 2020. However, the digital tax must be regularly evaluated starting on 31 December 2021 in terms of uniformity of taxation and implementation, as well as its impact on business entities in the light of any more comprehensive measures for taxation of the digital economy at EU or OECD level. With global consensus reached, Austria has agreed to remove the digital tax; further modalities are yet to be coordinated.
- Austrian tax law provides for different tax incentives related to research and development potentially relevant in the context of big data, amongst others the research premium and relocation tax benefits. Data collection does not constitute research or experimental development for the purpose of these incentives. In contrast, software development (including data analytics tools) can qualify as research and experimental development, but only if it contributes to problem solutions that represent scientific and/or technological progress.
- There has been an intensive academic discussion in Austria if a user's enjoyment of free digital services (e.g., use of a social media platform, a search engine, a message service, a free e-mail service etc.) in cases where the provider is able to collect user data, constitutes a barter transaction that could be recognized for Value Added Tax (VAT) purposes *de lege lata* (in light of the harmonized EU VAT regime and the respective case law of the CJEU) or should be so *de lege ferenda*. One core issue of this discussion is whether mere agreement to agreeing to a service provider's terms and conditions results in the transmission of data being not in exchange for a service (or in lieu of monetary compensation). However, to date no court decision on that issue has been rendered and no legislative action *de lege ferenda* has been announced.
- For Austrian tax accounting purposes, expenses for internally developing intangible assets are immediately deductible and no asset is capitalised. Up to now the question if acquired “big data” qualifies as an (intangible) asset has not been discussed in Austria. However, following Austrian case law by analogy, in our opinion acquired “big data” has to be capitalised as an asset with its acquisition costs. If “big data” is transferred to a foreign permanent establishment, the hidden reserves are taxed irrespective of the data being capitalised or not (within the EU/EEA in instalments) because the Austrian exit tax rules comprise the transfer of assets and “other services”.

Introduction: Legal background

As for the relevant legal background applicable to big data transactions, we can largely refer to the general description of commercial law principles described in the general report. Despite an ongoing academic discussion, the Austrian legal system does not recognize a property right in data *per se*.⁴ The potentially relevant regulatory aspects are based on EU harmonization measures: Austria has implemented the protections of the EU Database Directive⁵ into domestic law: §§ 40f, 40g and 40h of the Austrian Copyright Act implement the copyright protection of ‘databases which, by reason of the selection or arrangement of their contents, constitute the author’s own intellectual creation’ (Chapter II of the Database Directive) and §§ 76c, 76d and 76e implement the *sui generis* right to ensure protection of any investment in obtaining, verifying or presenting the contents of a database (Chapter III of the Database Directive). Moreover, Austria has implemented the Trade Secrets Directive⁶ in §§ 26a to 26j of the Act Against Unfair Competition for the protection against the unlawful acquisition, use and disclosure of trade secrets. Finally, the EU’s General Data Protection Regulation (GDPR)⁷ prohibits companies from processing any personal data unless a data subject has provided informed consent to data processing for one or more purposes or there is a statutory exception. There is, however, broad agreement that these legal instruments do not create a full legal framework for (the protection of) data (e.g., machine-generated data), so that contractual agreement dominates the “market for data”.⁸

Part One: Basic principles: Character, source and nexus

1.1. General overview

In Austria, there are no specific laws relating to data transactions such as “raw data transactions”, “aggregated data transactions”, and “big data analytics”. Instead, the general rules of the Austrian Income Tax Act (*Einkommensteuergesetz*, “EStG”) and the Corporate Income Tax Act (*Körperschaftsteuergesetz*, “KStG”) apply. The EStG defines seven categories

⁴ For discussion and further references see, e.g., S. Dürager, *Sind Daten ein schutzfähiges Gut?* ÖBl 2018/80, p. 260 (pp. 262–263).

⁵ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, [1996] OJ L77, p. 20 et seq., as amended by [2019] OJ L130, p. 92 et seq.

⁶ Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure, [2016] OJ L157, p. 1 et seq.

⁷ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), [2016] OJ L119, p. 1 et seq. The Regulation as such is directly applicable in all member states but requires domestic implementation in some areas; and Austria has adopted those measures in an amendment to the Austrian Data Protection Act (see Federal Gazette (BGBl) I 2017/120).

⁸ For recent analysis of various issues, including the legal framework for artificial intelligence and data generated by it, see S. Dürager, *Sind Daten ein schutzfähiges Gut?* ÖBl 2018/80, p. 260 (pp. 260–267); H. Herda, *Artificial Intelligence und Immaterialgüterrecht*, wbl 2019, p. 305 (pp. 305–314); P. Burgstaller and E. Hermann, *Urheberrechtliche Relevanz von KI-generierten sowie verschlüsselten Inhalten*, ÖBl 2020/44, p. 148 (pp. 148–155).

of income which are subject to tax (§ 2(3) and §§ 20-30c EStG). The list is exhaustive so that income not falling within any of these categories is not taxable at all. The categories are:

1. Income from agriculture and forestry
2. Income from self-employment
3. Income from commercial activities / (ordinary) business income
4. Income from employment
5. Income from capital investments
6. Income from renting, leasing and royalties
7. Other specific income

The differentiation between the categories of income is relevant because the computation of taxable income depends on it. While for categories 1 to 3 ("business income" or "profit income") the tax base is the "profit" generated from commercial activities, which is generally determined based on commercial and/or tax accounting, the tax base for categories 4 to 7 ("non-business income") is calculated based on the excess of the receipts over expenditures (§ 2(4) EStG). Categories 1 to 4 take precedence over categories 5 to 7 ("principle of subsidiarity").⁹ For corporate income tax purposes, the same concept of income is used as in the Income Tax Act. However, § 7 KStG sets forth the fiction that all income of limited liability companies and stock companies as well as of other corporations required to keep books following the Commercial Code is classified as income from commercial activities ("commercial fiction").

1.2. Character, source and nexus of data transactions under general tax law

Based on the general rules described above, income from raw data, aggregated data transactions (including the access to as well as the sale of data) and from big data analytics in a purely domestic situation will usually qualify as business income, which is taxed in the same way as any other ordinary business income due to the principle of subsidiarity.

If, in case study 1, Broker Co collects data and resells certain data sets to its customers, Broker Co – if resident in Austria – would be subject to unlimited tax liability in Austria, i.e. subject to tax on its worldwide income. The income would be categorized as business income and would be calculated on a net base (profit income).

In an international context, however, the type of income has to be qualified on an isolated basis to determine if the non-resident carrying out data transactions is taxable in Austria. While for the purpose of limited tax liability the same categories apply as for unlimited tax liability, only income sourced in Austria (i.e., those with an Austrian nexus, as defined in § 98 EStG) is subject to limited tax liability (§1(3) and § 98 EStG). "Qualification on an isolated basis" means that, even if the non-resident taxpayer carries out the data transaction in the context of a foreign trade or business, the income from activities in Austria (including, e.g., data transactions) is not automatically characterized as business income, but that those activities and transactions have to be analysed separately from the business activities carried out abroad and could therefore come under categories 5 to 7, e.g., as royalty

⁹ This means, e.g., that even if royalty income would be covered by the definition of category 6 (income from renting, leasing and royalties), it would be taxed under category 3 (ordinary business income) if it is derived in the course of commercial activities.

income. This avoids that the mere qualification of Austrian-sourced income as business income would exclude taxation in Austria (for lack of a permanent establishment).

In general, data transactions could potentially qualify as (ordinary) business income (§ 23 EStG), which includes capital gains from the alienation of assets, or as royalty income (§ 28 EStG). As already explained above, however, royalty income in an Austrian business context is taxed as business income under § 23 EStG (which generally takes priority over § 28 EStG). However, in a cross-border context and in light of the necessary “qualification on an isolated basis”, the definition of royalty income (and its distinction from business income) is still highly relevant for the taxation of non-resident taxpayers (without a permanent establishment in Austria), as the respective rule in § 98(1)(6) EStG refers to § 28 EStG. Moreover, those rules of the Income Tax Act also apply to corporate taxpayers (§§ 7, 21 KStG).

Income from commercial activities is broadly defined as income from activities that are carried out autonomously (*‘selbstständig’*), sustainably (*‘nachhaltig’*), with the intention to derive a profit (*‘Gewinnabsicht’*) and on a long-term basis (*‘Wiederholungsabsicht’*), but excludes agricultural or forestry activity or professional services (§ 23 EStG).¹⁰ In general, (ordinary) business income derived by a non-resident is only subject to tax in Austria if the business activity is carried out through a permanent establishment in Austria (§ 98(1)(3) EStG), i.e., the nexus is generally created by a domestic permanent establishment (as defined in § 29 of the Federal Tax Code, *Bundesabgabenordnung*),¹¹ unless the income is (also) categorized as being taxable Austrian sourced income under a different provision in § 98 EStG, such as, e.g., royalty income.

Royalty income is defined as income generated from the granting of rights on a temporary or on an indefinite basis or from permitting the exploitation of rights (§ 28(1)(3) EStG), but for resident taxpayers, due to the principle of subsidiarity, this provision only applies outside of a business context. The exploitation of rights includes, amongst other things, the granting of permissions under copyright law in the area of literature and art which enable the licensee to use the rights in the same way as the originator (i.e. the licensor),¹² but also covers commercial know-how (e.g., recipes, plans, address collections) and other rights (e.g., distribution rights, transmission rights). The alienation of such rights, however, does not constitute royalty income.¹³ Further, royalties are subject to limited tax liability in Austria only if the underlying rights are entered into an Austrian register (e.g., the patent register or trademark register) or are “utilised” in an Austrian permanent establishment (§ 98(1)(6) EStG). Tax is then generally deducted at source at a rate of 20% on the gross amount (§ 99(1)(3) and § 100 EStG) unless source taxation is barred by the Austrian implementation of the EU’s Interest-Royalties-Directive¹⁴ for inter-company royalty payments (§ 99a EStG). One should note, however, that “data” is not entered into a register

¹⁰ For agriculture and forestry or professional services there are separate categories of income, see above categories 1 and 2.

¹¹ If there is a permanent establishment in Austria to which the activities are attributable, the subsidiarity principle also applies for non-residents.

¹² See Fröhlich in Doralt, Kirchmayr, Mayr and Zorn (eds), *Kommentar zum EStG*, 9th edition (2005), § 28 m.no. 68.

¹³ Austrian Supreme Administrative Court (VwGH), 23 March 1956, 3475/53, VwSlg 1392 F/1956; VwGH, 24 November 1987, 87/14/0001, ÖStZB 1988, 327; Para. 8000 of the Austrian Income Tax Guidelines 2000 (EStR 2000).

¹⁴ Council Directive 2003/49/EC of 3 June 2003 on a common system of taxation applicable to interest and royalty payments made between associated companies of different Member States, [2003] OJ L 157, p. 49, as amended.

so that only its utilization in an Austrian permanent establishment (e.g., of the licensee¹⁵) may lead to limited tax liability under § 98(1)(6) EStG.

There is, however, limited guidance as to the treatment of transactions where a non-resident taxpayer grants a resident the right to use data or data collections. In particular, it is not entirely clear if such transactions would qualify as an “exploitation of rights” in terms of § 28 and § 98(1)(6) EStG. German guidance with regard to similar taxation rules implies that it is necessary to distinguish between the right to use a database and the data, e.g., to access, read and print the data via a software application and to even pass on that research results to clients (which would not lead to royalties), and the further right to economically utilize the database, e.g., by the right to grant third parties access to the database (which would lead to royalties).¹⁶ The Austrian tax authorities seem to take a similar position. Following the Income Tax Guidelines in respect of literature databases, it is decisive if the database is simply used as intended (i.e. to research literature and to read, download or print the contents) or if the user has further rights that go beyond this mere use (in the sense of a commercial exploitation). Only the second scenario could lead to royalty income.¹⁷

Similarly, there is limited guidance as to the treatment of transactions where data is transferred by a non-resident to a resident or where big data “derived” from Austria (i.e., by users who are resident in Austria) is analysed by a non-resident. However, since the alienation of rights does not qualify as royalty income in the first place, a potential gain from the alienation would be characterized as ordinary business income (only subject to limited tax liability if there was a PE in Austria). Thus, it need not be established whether the data transferred qualifies as a right in terms of § 28 EStG.

If, in case study 1, Broker Co is resident abroad and collects data from Austrian users and sells data sets to Austrian customers that make use of the data in the course of their marketing activities, Broker Co is subject to tax in Austria only if it has a permanent establishment in Austria. This is because the income derived from the sale of data sets is not considered royalty income in terms of § 28 and § 98(1)(6) EStG but rather as business income in terms of § 23 and § 98(1)(3) EStG, so that the relevant Austrian nexus is a permanent establishment of the alienator to which those transactions are attributable.

Part Two: Application of treaty principles

2.1. General overview

Austria has entered into around 90 tax treaties, and those treaties generally take priority over domestic law as *leges speciales*.¹⁸ Consequently, the treaty provisions might modify the taxation of data transactions as discussed above (including transfer of raw data, transfer

¹⁵ VwGH, 21 February 1964, 2007/63, ÖStZB 1964, 122; Para. 7977 EStR 2000.

¹⁶ See the discussion with regard to databases and applications that contain current and historical stock market and currency data as well as credit ratings in the letter by the German Federal Ministry of Finance, “Beschränkte Steuerpflicht und Steuerabzug bei grenzüberschreitender Überlassung von Software und Datenbanken”, IV C 5 – S 2300/12/10003 :004, paras 35 et seq.

¹⁷ See Para. 8000 of the Austrian Income Tax Guidelines 2000 (EStR 2000).

¹⁸ VwGH, 28 June 1963, 2312/61, ÖStZB 1963, 215; VwGH, 7 September 1989, 89/16/0085, ÖStZB 1990, 248 = VwSlg 6424 F/1989

of or access to aggregated data and big data analytics). It should be noted, though, that tax treaties only limit already existing taxing rights. Therefore, if under domestic law data transactions as described above are not subject to tax in Austria (especially in case of non-residents), tax treaties cannot establish any additional taxing rights going beyond domestic law.¹⁹

Austrian treaty practice is generally based on the latest OECD Model. For negotiations with developing countries, the UN Model is taken into account as well. Therefore, we can largely refer to the treaty principles as established by the OECD Model and further elaborated in the Commentaries. Most Austrian tax treaties, however, deviate from the Model Conventions in particular points. Where this is relevant for data transactions, it is highlighted in the following chapter.

2.2. Detailed comments

Generally, under the OECD and UN Models and Austrian tax treaties, business profits would be taxable in a country only if attributable to a permanent establishment located therein. In contrast, certain other types of income, such as royalties, may be subject to withholding tax in the source country independent of a permanent establishment. The characterization of a transaction as business profits or as another type of income may therefore lead to a different treatment for tax treaty purposes. In the context of data transactions as described above, the following treaty provisions of the OECD Model and the Austrian treaty network are potentially applicable: business profits (article 7), royalties (article 12), capital gains (article 13) or other income (article 21). The UN Model includes further provisions that may apply in the context of data transactions: technical services (article 12A) and, prospectively, automated digital services (article 12B).

Following Art. 7 OECD Model business profits are taxable only in the residence state of the enterprise unless the income is derived through a permanent establishment in the other state. Taxation by the source state is thus only possible if the enterprise has established a fixed place of business in terms of article 5 OECD Model or, in the case that a tax treaty follows the UN Model in that respect, if the enterprise is physically present there for at least half a year for the purpose of furnishing services (article 5(3) (b) UN Model). Following OECD guidance, it is quite uncontroversial that an enterprise that carries out the data transactions as described above would only be taxable in its state of residence assuming that it has no “traditional” PE (or physically furnishes services in another state according to article 5(3) (b) UN Model). The mere fact that the relevant data is collected from a particular state or the data is bought and/or used by a taxpayer in a particular state would not create nexus under existing treaty rules.

In the context of article 7 (and article 5) OECD Model, guidance by the Austrian tax authorities has concluded that a server (computer equipment) can create a permanent establishment if it is at the disposal of the enterprise.²⁰ This means that if the server or computer equipment as such is owned or rented by the enterprise, a nexus would be created in the state where the server or computer equipment is located. In contrast, if another

¹⁹ See, e.g., VwGH 29, July 2010, 2010/15/0021, ÖStZB 2011/84, 139; VwGH 30 March 2011, 2007/13/0105, ÖStZB 2011/379, 599.

²⁰ See the Ministry of Finance’s “Express Answer Service” (EAS) 3401 (3 April 2018), with reference to previously issued guidance in EAS 926, 1574, 1804, 1836 and 2502.

enterprise only uses server capacity without the hardware as such being at its disposal (e.g., in the case of cloud computing, infrastructure as a service), the requirements of a permanent establishment would not be fulfilled.²¹ It is unclear if the Austrian tax authorities would generally treat infrastructure-as-a-service (IaaS) transactions as services (so that they are characterised as business profits for treaty purposes) and not as rentals of space on the cloud service provider's servers by others (which would characterise the payments as royalties for the purposes of treaties that include in the definition of royalties payments for rentals of commercial, industrial, or scientific equipment).

In most Austrian tax treaties, the scope of the royalties article follows article 12 OECD Model. However, in some treaties (and similar to the UN Model definition) income from the use of, or the right to use, any industrial, commercial or scientific equipment²² or for fees for technical services are included in the scope of the royalties article.

There is no guidance in Austria whether payments for the use of or right to use (user) data could qualify as royalties in terms of article 12 OECD Model or article 12 UN Model. It can therefore largely be referred to the respective Model Commentaries. What is noteworthy, though, is the Austrian tax authorities' position on the meaning of "industrial, commercial or scientific equipment". The UN Model does not define the term "equipment" but lists several examples, including ships, aircraft, vehicles, pipelines etc.²³ Even though the Commentary on article 12 UN Model suggests that intellectual property would not be covered by the royalty definition, the Austrian tax authorities state that "equipment" is not necessarily a tangible asset but may also include intangibles, such as software.²⁴ In light of such a broad understanding, it generally appears to be possible that user data may be qualified as equipment in terms of article 12 UN Model.

Case study 1 addresses two types of payments that may be relevant in the context of article 12 (royalties). First, the payment of Broker Co to Website Co for the access to information gathered through traffic on its website: In this case the consideration by Broker Co is for the acquisition of or access to raw data which is not covered by article 12 OECD Model. Second, Broker Co offers access to its database so that customers can acquire specific data sets. Again, from an Austrian perspective, article 12 OECD Model would not apply because the right to access the database does not constitute a use of or a right to use a copyright. In both cases, however, the payment could potentially be covered by article 12 UN Model if the broad understanding of the Austrian tax authorities was followed in the context of data transactions.

One of the latest additions to the UN Model is article 12A regarding fees for technical services. None of Austria's tax treaties include a provision based on article 12A UN Model. However, three tax treaties include technical services in the scope of the royalties article so that the fees may be taxed in the state where the payer of them is resident.²⁵ These treaties cover the rendering of services of a technical nature but do not define this concept any further. However, the Commentary on article 12A UN could be an indication, noting that "technical" means "the application of specialized knowledge, skill or expertise with respect to a particular art, science, profession or occupation".²⁶ While that definition is not

²¹ See EAS 3401 (3 April 2018).

²² See, for example, the Austrian tax treaties with Belgium, Ireland and Luxembourg.

²³ See para. 13.2 of the Commentary on art. 12 UN Model.

²⁴ See EAS 971 (14 November 1996); EAS 980 (2 December 1996); EAS 1499 (26 July 1999); EAS 3393 (3 October 2017).

²⁵ See the Austrian tax treaties with India, Pakistan and Vietnam.

²⁶ See para. 64 of the Commentary on art. 12A UN Model.

specifically targeted at digital products and services, it generally includes a broad range of cloud computing services (e.g., IaaS, SaaS etc). Also, collecting, organizing and structuring data may require technical skills. However, making available and granting access to a database – like Broker Co in Case Study 1 – should in our opinion not be considered as a technical service in terms of the Austrian treaty provisions.²⁷

Very recently, the Committee of Experts on International Cooperation in Tax Matters (“UN Tax Committee”) has adopted a new article 12B for the UN Model that allows for source taxation of income from the rendering of automated digital services.²⁸ The definition in article 12B(4) UN Model would include the sale or other alienation of user data because it constitutes a “service provided on the internet or an electronic network requiring minimal human involvement from the service provider”.²⁹ It remains to be seen if Austrian tax treaty policy will adopt this new rule.

Finally, it might be noted that consideration for the transfer of the full ownership of a right does not constitute a royalty under article 12 OECD or UN Model,³⁰ but will rather be qualified as ongoing business income under article 7 or a capital gain under article 13(2) of the respective Model, with Austrian practice generally applying article 7 (likely also to the transfer of data) unless the entire business is sold.³¹ Finally, article 21 could be relevant for cases where users are (deemed to) have earned income from selling “their” data (e.g., in the context of taxable barter transactions).

Part Three: Transfer pricing

All Austrian tax treaties include a rule based on Art. 9 OECD Model which is the basis for the allocation of profits between associated enterprises and for the arm's length principle. To the extent that Art. 9 of a particular tax treaty leads to an upward adjustment, the primary adjustment has to be based on a domestic rule which enables the tax authorities to adjust the price of an intercompany transaction. This domestic rule is § 6(6) EStG (exit tax rule) and, according to the Austrian tax authorities, has to be interpreted in line with the arm's length principle as set forth in Art. 9 OECD Model.³² A considerable number of the Austrian tax treaties lack a rule for corresponding adjustments in line with Art. 9(2) OECD Model. According to the Austrian tax authorities, in these cases corresponding adjustments still have to be made if the primary adjustment is in line with the arm's length principle. This is because article 9(2) OECD Model is only of a clarifying nature.

Austria relies on the OECD Transfer Pricing Guidelines (OECD TPG) for interpreting article 9 of all of its tax treaties as well as for interpreting the domestic rule that sets forth the arm's length principle (§ 6(6) EStG). This is enshrined in the Austrian Transfer Pricing

²⁷ In this sense see para. 42 of the OECD E-Commerce Report (2001).

²⁸ See UN Tax Committee, art. 12B of the UN Model Tax Convention, as agreed at its 22nd session, <https://www.un.org/development/desa/financing/document/article-12b-un-model-tax-convention-agreed-committee-its-22nd-session> (last accessed 20 November 2021).

²⁹ See paras 38 and 39 (ii) of the draft Commentary on art. 12B UN Model.

³⁰ See para. 8.2. of the Commentary on art. 12 OECD Model.

³¹ See Loukota and Jirousek, *Internationales Steuerrecht I/1 Veräußerungsgewinne*, para. 28 (1.3.2015, rdb.at).

³² See F. Rosenberger in Aigner, Kofler and Tumpel (eds.) *DBA*, 2nd edition (2019), art. 9 m.no. 290.

Guidelines (Austrian TPG) published by the Austrian Ministry of Finance in the form of a decree.³³ The Austrian TPG are based on and are generally in line with the OECD TPG. They are aimed at ensuring and facilitating the application of the OECD TPG in Austria.

The Austrian tax authorities take the position that tax treaties in general are interpreted dynamically and that the OECD TPG in their latest version have to be applied. This means that currently, the OECD TPG 2017 are applicable in Austria, including the latest guidance for intangibles (see Chapter VI of the OECD TPG). Consequently, no specific guidance applies for the transfer of data or for the provision of goods or services where the value or efficiency has been enhanced by an enterprise's use of big data. Instead, the application of the arm's length principle to such transactions has to be based on the general guidance provided in the OECD TPG.

In order to apply the arm's length principle in the context of big data, it is necessary to understand the structural concept of how *data* mining is used by MNE groups to create value. Generally speaking, data mining is the transformation of raw information into knowledge that helps understanding the needs of customers and to accordingly adapt the services or goods supplied.³⁴ This process can be split between different companies within an integrated MNE group. In this case, transactions between these companies occur which have to be priced at arm's length. The main challenge in determining an arm's length price for transactions involving big data is that very often no comparable transactions between unrelated parties exist.

In Austrian literature³⁵ it has been suggested to first, identify the activities performed by individual entities along the value chain of the knowledge development process and second, to determine the value of the specific activities in relation to the overall value creation by *data* mining. Subsequently, a conceptual analysis of the functions and risks involved in the data mining process (focusing on the specific people functions involved) can provide benchmarks to set transfer prices in accordance with comparable market prices. Finding comparables may be difficult but recently more and more companies offer services on the market that focus on separate steps of the data mining process (such as the collection of raw data, the preparation of data, or the provision of information).

For example, in case study 1, Website Co provides raw data to Broker Co. If they are related parties an arm's length price has to be charged for this transaction. The transfer price depends on the functions performed, assets used and risks assumed by the parties to the transaction. It is assumed that Website Co only performs simple functions without using any intangible property (i.e. retrieving raw information in a standardized way) and that there are numerous other enterprises that offer services comparable to Website Co's. Consequently, the prices of these services could be used to determine an arm's length price with a one-sided method (e.g. using CUP or cost-based TNMM).

Assuming now that the activities of Website Co and Broker Co are much more integrated, both entities making unique and valuable contributions to the data mining process, jointly assuming economically significant risks.³⁶ For example, they jointly develop

³³ See the Austrian Transfer Pricing Guidelines of 7 October 2021, 2021-0.586.616, BMF-AV Nr. 140/2021.

³⁴ See Spengel and Ludwig, *Profit Allocation in Digital Businesses. The OECD's Reform Proposals and Their Impacts*, 3 TPI (2019), p. 258 (p. 259).

³⁵ See Spengel and Ludwig, *Profit Allocation in Digital Businesses. The OECD's Reform Proposals and Their Impacts*, 3 TPI (2019), p. 258 (p. 259).

³⁶ See para. 2.126 of the OECD TPG 2017 as updated by the OECD's Revised Guidance on Application of the Transactional Profit Split Method.

the data analytics software or Website Co develops the base technology which Broker Co uses to scale up the software. The accurate delineation of the transaction indicates that both entity's contributions are unique and valuable to the creation and success of the software. Under these circumstances, the transactional profit split method is likely to be the most appropriate method for determining the transfer prices between the related parties.³⁷

Part Four: Special regimes

4.1. DST

In 2020, Austria introduced new legislation which provides for a revenue-based digital business tax of 5% on online advertising, i.e., the Digital Tax Act 2020 (*Digitalsteuergesetz* 2020).³⁸ From an Austrian perspective, this act is viewed primarily as an addition to the existing tax regime and not a special tax for digital corporations, as Austria already has a corresponding "traditional" advertising tax for print, broadcasting etc. since 2000 (*Werbeabgabegesetz*).³⁹

This "expansion" of taxation beyond the traditional advertising tax was deemed necessary, as within a period of just a few years, digitalisation has created entirely new business models, thereby exposing the shortfalls of the current tax system.⁴⁰ Targeted online advertising, for instance, is based on the search behaviour and preferences of users and utilises this data. This led to the concern that Austrian advertisers conclude contracts with foreign – sometimes lowly taxed – service providers and deduct their advertising payments as business expense, whereas domestic traditional advertising is taxable in Austria under the *Werbeabgabegesetz*.

In addition to the OECD (BEPS Project), the European Commission has also recognized the need for action and in March 2018 presented a "Digital Taxation Package"⁴¹ which, in addition to a long-term solution in the form of a "significant digital presence" (SDP),⁴² also proposed a "digital services tax" (DST) of 3% on specific digital revenues.⁴³ One central issue of the DST was the question of what types of digital services should be included. In summary, revenues from three types of services were to be covered, i.e., online placement of targeted advertising, digital platforms facilitating interactions between users ("sharing economy"),

³⁷ See example 5 in Annex II to Chapter II of the OECD TPG 2017 as updated by the OECD's Revised Guidance on Application of the Transactional Profit Split Method.

³⁸ Federal Gazette I 2019/91, as amended.

³⁹ Federal Gazette I 2000/29, as amended.

⁴⁰ For detailed analysis, see, for instance G. Kofler, G. Mayr and C. Schlager, *Taxation of the Digital Economy: "Quick Fixes" or Long-Term Solution?*, 57 Eur. Tax'n. 12 (2017), p. 523 et seq.; see also M. Olbert and C. Spengel, *International Taxation in the Digital Economy: Challenge Accepted?*, 9 World Tax Journal (2017), p. 3 et seq.; W. Schön, *Ten Questions about Why and How to Tax the Digitalized Economy*, 72 Bull. Int'l Tax'n (2018), p. 278 et seq.

⁴¹ See the Commission's Communication "Time to establish a modern, fair and efficient taxation standard for the digital economy", COM(2018)146.

⁴² See the Proposal for a Council Directive laying down rules relating to the corporate taxation of a significant digital presence, COM(2018)147, and the Commission Recommendation of 21 March 3 2018 relating to the corporate taxation of a significant digital presence, C(2018)1650.

⁴³ Proposal for a Council Directive on the common system of a digital services tax on revenues resulting from the provision of certain digital services, COM(2018)148.

and sale of user data. However, Germany and France submitted a joint declaration providing for a limitation of the tax on “targeted advertising”. This “reduced” Directive should have been adopted by March 2019, but it failed to reach unanimity in the European Council.⁴⁴ As a result, some EU member states have introduced or announced to introduce unilateral measures similar to the EU’s proposed DST (such as Spain, France and Italy).

It is noteworthy, however, that in contrast to most other EU member states Austria already levies a special tax of 5% on payments for “traditional” advertising since 2000 (e.g. in newspapers, on television or by direct mail). When this law, i.e., the *Werbeabgabegesetz*, was enacted in 2000, online advertising was relatively insignificant, and it was therefore not included in the list of taxable advertising services.⁴⁵ Obviously, this has changed so that an expansion to “online” advertising was effectuated in 2020. This happened in a separate act, the Digital Tax Act 2020 (*Digitalsteuergesetz 2020*), because conceptually (e.g. in terms of taxable revenue) a tax on online advertising differs significantly from the current advertising tax and moreover requires definitions of technical terms.

The key features of the new digital tax are the following:

- Taxable item: Online advertising services in Austria
- Taxpayer: Online advertising service provider (with high revenues)
- Assessment basis: Remuneration received by the online advertising service provider
- Tax rate: 5% (same as the advertising tax)
- Entry into force: 1 January 2020

According to § 2(1) of the Digital Tax Act 2020, online service providers are business entities which render online advertising services against remuneration or which contribute to other remunerations and, within one financial year, achieve:

- global revenues of at least EUR 750 million and
- revenues in Austria from online advertising services of at least EUR 25 million.⁴⁶

Moreover, the scope is limited to online advertising (also) directed at Austrian users in terms of content and design. The existing traditional advertising tax requires a similar “nexus” to Austria.⁴⁷ In the case of online advertising, to put it simply, a distinction can be made between individualised online advertising (tailored to the user) and banner advertising. Individualised online advertising will always be addressed to Austrian users. For instance, in the case of a German or UK online newspaper with special banner advertising for Austria (“Austria banner”) this is directed at Austrian users, too. The situation is different if, on the website of a German online newspaper, a fixed banner advertisement appears for all

⁴⁴ No agreement on the initial DST proposal was reached in December 2019 (Doc. 14885/18 FISC 510 ECOFIN 1148 [29 November 2018] and Doc. 14886/18 FISC 511 ECOFIN 1149 [29 November 2018]). The proposal was subsequently limited to digital advertising services in March 2019 (“DAT”; Doc. 6873/19 FISC 135 ECOFIN 242 [1 March 2019]) but then postponed in March 2019 (Doc. 7368/19 PRESSE 12 [12 March 2019]). It has been stated that the discussion might be resumed if no OECD consensus on the taxation of the digitalized economy is reached (Doc. 9773/19 FISC 281 ECOFIN 528 [7 June 2019]).

⁴⁵ Due to the increasing importance of online advertising, “traditional” media considered this non-inclusion to be objectively unjustified and referred to the Austrian Constitutional Court, which however rejected their appeal. See Austrian Constitutional Court (VfGH), 12 October 2017, E 2025/2016.

⁴⁶ See G. Mayr, *New Digital Business Tax on Online Advertising in Austria*, 59 *European Taxation* (2019), p. 350 et seq.

⁴⁷ If, e.g., TV advertising intended to be received in Austria is broadcast from Germany, it is deemed to have been rendered in Austria. This, in particular, relates to the so-called “Austria advertising window” of German private broadcasters.

users/readers; such fixed banner advertising will be directed primarily at German (and not Austrian) users.

The Digital Tax Act applies to online advertising services with effect from 1 January 2020. Moreover, § 8(2) of the Digital Tax Act provides for compulsory evaluation. Starting on 31 December 2021, the digital tax must be regularly evaluated in terms of uniformity of taxation and implementation, as well as its impact on business entities in the light of any more comprehensive measures for taxation of the digital economy at EU or OECD level. Compulsory evaluation is thus fully structured and it clearly communicates the fact that Austria continues to seek an international solution with regard to taxation of the digitalized economy and will intensively advocate such an international solution, above all at the OECD level. Indeed, the removal of “unilateral measures” is an integral part of the global consensus on Pillar One which was reached in October 2021.⁴⁸ While the modality of such removal is still subject to discussion at the time of writing, it is emerging that the Austrian Digital Tax would qualify as a unilateral measure and as such will have to be withdrawn following the implementation of Pillar One.

Finally, it might be noted that recent judgments from the European Union courts in *Poland v. Commission*,⁴⁹ *Hungary v. Commission*,⁵⁰ *Vodafone*,⁵¹ and *Tesco*⁵² on progressive turnover-based taxes indicate that such unilateral DSTs would not generally infringe upon the EU fundamental freedoms, state aid rules or the VAT Directive.⁵³ It is, however, unclear if such taxes would violate international trade law,⁵⁴ and moreover, an investigation by the US Trade Representative (USTR) under § 301 of the Trade Act of 1974 has been opened with regard to DSTs adopted or under consideration, *inter alia*, by Austria.⁵⁵ Following the October Statement, agreement could be reached with the US regarding the treatment of the Austrian Digital Tax until full implementation of Pillar One.⁵⁶ In defined circumstances, tax liability that US companies accrue during this interim period will be creditable against future income taxes accrued under Pillar One. In return, the US will withdraw the (currently-suspended) retaliatory duties on Austrian goods.

⁴⁸ OECD/G20 Base Erosion and Profit Shifting Project, Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy, 8 October 2021 (“October Statement”).

⁴⁹ General Court, 16 May 2019, Cases T-836/16 and T-624/17, *Poland v. Commission*, EU:T:2019:338 (pending before the EC) as C-562/19 P, following the Commission’s appeal of 2 July 2019, [2019] OJ C 328/29).

⁵⁰ General Court, 27 June 2019, Case T-20/17, *Hungary v. Commission*, EU:T:2019:448 (pending before the EC) as C-596/19 P, following the Commission’s appeal of 6 August 2019, [2019] OJ C 348/10).

⁵¹ ECJ (Grand Chamber), 3 March 2020, Case C-75/18, *Vodafone Magyarország Mobil Távközlési Zrt.*, EU:C:2020:139.

⁵² ECJ (Grand Chamber), 3 March 2020, Case C-323/18, *Tesco-Global Áruházak Zrt.*, EU:C:2020:140; see also the Opinion of AG Kokott, 4 July 2019, Case C-323/18, *Tesco-Global Áruházak Zrt.*, EU:C:2019:567.

⁵³ For analysis see, e.g., the Opinion Statement ECJ-TF 2/2020 on the CJEU decision of 3 March 2020 in Case C-75/18, *Vodafone Magyarország Mobil Távközlési Zrt.* on progressive turnover taxes.

⁵⁴ For an analysis of the issues see, e.g., A. D. Mitchell, T. Voon and J. Hepburn, *Taxing Tech: Risks of an Australian Digital Services Tax under International Economic Law*, 20 Melb. J. Int. Law. (2019), p. 88 et seq.

⁵⁵ See 85 Fed. Reg. No. 109, 34709, regarding an investigation of the DSTs adopted or under consideration by Austria, Brazil, the Czech Republic, the European Union, India, Indonesia, Italy, Spain, Turkey, and the United Kingdom. With regard to France, the USTR has already determined that “France’s Digital Services Tax is unreasonable or discriminatory and burdens or restricts U.S. commerce” (84 Fed. Reg. No. 235, 66956, based on an extensive report of 2 December 2019).

⁵⁶ See the press release of the Office of the United States Trade Representative, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/october/ustr-welcomes-agreement-austria-france-italy-spain-and-united-kingdom-digital-services-taxes> (last accessed 20 November 2021).

4.2. Incentives

There are no specific tax incentives in Austria for big data development or exploitation. However, more generally, Austrian tax law provides for different tax incentives related to research and development potentially relevant in the context of big data, amongst others:

- a tax credit for self-conducted and contracted research and development (“research premium”); and
- tax privileges in case of a relocation to Austria that benefits science or research (“relocation tax benefits”).

§ 108c EStG offers the possibility of a tax credit of 14% of R&D expenses (“research premium” or “Frascati premium”). This tax credit is available to most taxpayers (including those subject to the corporate income tax act) and can be obtained regardless of whether the R&D activity performed is successful or not or abandoned before the final stage. In the context of the research, premium R&D is defined as research and experimental development, which is performed systematically and with the aid of scientific methods in order to increase the state of knowledge and to develop new applications of the knowledge.⁵⁷ Research and experimental development covers basic research, applied research and experimental development.⁵⁸ The name “Frascati premium” can be traced back to the OECD’s Frascati manual from 2002 which provides the basis for statistics on R&D expenditures and personnel for OECD countries and also defines R&D for OECD purposes.⁵⁹

Data collection does not constitute research or experimental development in terms of § 108c EStG.⁶⁰ In contrast, software development can qualify as research and experimental development, but only if it contributes to problem solutions that represent scientific and/or technological progress.⁶¹ For example, a data broker who develops data analytics software for the purpose of collecting data through a website may qualify for the research premium if he can substantiate that the data analytics software solves problems in a novel, progressive way. This would be the case if the software development brings about general advances in the field of collection, transmission, storage, retrievability, processing, integration and display as well as the protection of data; and has to be analysed on a case-by-case basis.⁶²

§ 103 EStG offers different tax privileges for persons relocating their residency to Austria, if this relocation benefits science or research (“relocation tax benefits”). Following § 103(1) EStG, the person can apply for the elimination of additional tax burdens on foreign income resulting from having a permanent home in Austria.⁶³ The additional tax burden is eliminated by applying an average flat-rate on income derived by the person abroad. The second tax privilege (§ 103(1a) EStG) is a tax exemption for 30% of the income derived by the person from domestic or foreign scientific activities. The tax privileges can be claimed by scientists or researchers of all fields, however their activities have to be in the public interest of Austria. The definition of eligible R&D is the same as in the context of the research

⁵⁷ See § 108c(2)(1) EStG.

⁵⁸ See Part A, para. 1 in Annex I of the Ordinance on the Research Premium (“Forschungsprämienverordnung”).

⁵⁹ See Seydl in Wiesner, Grabner and Wanke, EStG § 108c para. 9a (1 January 2016, rdb.at); Lenneis in Jakom, EStG 2020, 13th ed. 2020, § 108c para. 5.

⁶⁰ See Part B, para. 1 in Annex I of the Forschungsprämienverordnung.

⁶¹ See Part B, para. 14 in Annex I of the Forschungsprämienverordnung.

⁶² See *ibid.*

⁶³ This also applies if the relocation benefits arts or sports.

premium. In addition, only highly skilled researchers or scientists who assume a higher degree of responsibility (e.g. project leaders) are eligible for the relocation tax benefits.⁶⁴

For example, an individual relocates to Austria for the purpose of carrying out research in the field of predicting animal migration. She is highly skilled in her field and was therefore appointed as the project leader. In the course of the project, she collects data and develops a data analytics tool that depicts the migration. The data collection per se would not qualify as R&D for the purpose of the relocation tax benefits. However, if the development of the data analytics tool contributes to problem solutions that represent scientific and/or technological progress, the relocation tax benefits may be granted.

4.3. Barter treatment

There has been an intensive academic discussion in Austria if a user's enjoyment of free digital services in cases where the provider is able to collect user data constitutes a barter transaction that could be recognized for Value Added Tax (VAT) purposes *de lege lata* (in light of the harmonized EU VAT regime and the respective case law of the CJEU) or should be so *de lege ferenda*. The focus of this discussion is on situations where users enter in a legal relationship with service providers (e.g., by accepting the terms and conditions) and "free" services (e.g., use of a social media platform, a search engine, a message service, a free e-mail service etc.) are rendered to them, but they have agreed in those terms and conditions that their data (e.g., location data, personal registration data, search terms, social media content etc.) be collected and utilized by the service providers. Assessing those business models, some have argued (*de lege lata*) that agreeing to those terms and conditions, which also permit the usage of data, already results in a (taxable) barter transaction, where the provider supplies a "free" services (e.g., use of a platform etc) and the user "pays" with data;⁶⁵ this perspective, of course, results in subsequent questions of how to determine the tax base, if users could become taxpayers themselves, and where and how to tax the supply. Others, however, have argued that no taxable exchange exists in these situations as the transmission of data is – from the perspective of the user – not in exchange for a service (or in lieu of monetary compensation), and that, moreover, taxation would be at odds with the aim of a VAT as a general consumption tax;⁶⁶ also, from a practical perspective, similar business models in the "real" world do not trigger VAT consequences, such as benefits under loyalty programs etc. However, to date no court decision on that issue has been rendered and no legislative action *de lege ferenda* has been announced.

⁶⁴ See para. 8202e EStR 2000.

⁶⁵ S. Pfeiffer, VAT on "Free" Electronic Services? 27 International VAT Monitor (2016), p. 158 et seq.; T. Ehrke-Rabel and S. Pfeiffer, Umsatzsteuerbarer Leistungsaustausch durch „entgeltlose“ digitale Dienstleistungen, 92 SWK (2017), p. 532 et seq.

⁶⁶ D. Aigner, P. Bräumann, G. Kofler and M. Tumpel, Digitale Leistungen ohne Geldzahlungen im Internet, 92 SWK (2017), p. 349 (pp. 349-357); H. G. Ruppe and M. Achatz, Umsatzsteuergesetz (5th edition, 2018) § 1 m.no. 68/1; M. Tumpel, Umsatzsteuer bei „unentgeltlichen“ Onlinediensten, in: S. Kirchmayr, G. Mayr, K. Hirschler, G. Kofler and T. Ehrke-Rabel (eds.), Digitalisierung im Konzernsteuerrecht (Linde, 2018), p. 57 (pp. 57-70).

Part Five: Indirect tax

Austria levies VAT in accordance with EU law. Under the EU rules, data transactions would usually qualify as the supply of a service. If the services are rendered to business customers, no special rules for this kind of data transactions exist so that the general rule for business-to-business services applies. This means that VAT is levied in the state where the recipient of the service carries out his business (destination principle). If the services are rendered to private customers (B2C transaction), the specific place of supply rule for e-services and telecommunication services applies following which the supply is taxable in the country of destination.

If, in example 1, Website Co carries out its business in Austria, the service by Broker Co (gathering of information through APIs) is supplied in Austria so that VAT becomes due in Austria at the standard VAT rate of 20%. The tax is levied through the reverse charge mechanism. The supply of data sets to the (business) customer of Broker Co also constitutes a service which is taxable where the customer carries out its business; if this is abroad, no VAT becomes due in Austria.

Part Six: Tax accounting

6.1. General overview

For the income categories 1 to 3 (“business income” or “profit income”) the tax base is the profit generated from commercial activities, which is generally determined based on commercial and/or tax accounting rules (§§ 4 and 5 EStG). According to § 4(1) EStG expenses associated with internally developing intangible fixed assets are immediately deductible as business expenses so that such assets are not reflected on the balance sheet. The idea behind this rule is that their value is uncertain. In contrast, if intangible fixed assets are acquired against payment, they have to be capitalized with the acquisition costs. There is a similar rule in the Austrian Commercial Code (§ 197(2) UGB) and also, for example, in the German Income Tax Act (§ 5(2) EStG).⁶⁷ This applies to natural persons with business income in the same way as to corporations.

In comparison, IAS 38.51-52 provides a framework for the recognition of internally generated intangible assets that should help identifying whether and when there is an identifiable asset that will generate expected future economic benefits, and determining the cost of the asset reliably. To facilitate this process, IAS 38 classifies the generation of the asset into a research phase and a development phase. Although the theoretical concept seems understandable, in practice this regulation is very complex.⁶⁸

The Austrian tax accounting rules are attractive for the development of, for example, automated digital services, software, deployment of sophisticated data analytic tools

⁶⁷ See Weber-Grellet in Schmidt (ed.) EStG-Kommentar³⁹ § 5 no. 161; in the German Commercial Law (§ 248 Abs. 2 HGB) there is an option to capitalize (but not for brands or customer lists), critical to this differentiation Mayr in Hey (ed.) Deutsche Steuerjuristische Gesellschaft Volume 34, 327 (337).

⁶⁸ According to IAS 38.18,21 an intangible asset is – in general – recognised when it meets all of the following criteria: identifiability, probability of future economic benefits, control over the future economic benefits and reliable measurement of cost.

or pharmaceuticals because the expenses are immediately deductible. However, in the past this led to undesired tax planning schemes because Austria did not have any exit tax rules for internally developed intangibles. Following these schemes, the intangibles were transferred abroad, in particular to a foreign permanent establishment, where the foreign tax accounting rules allowed the capitalization of intangible assets. Consequently, the intangible assets were depreciated and in this way the expenses for the development of the intangibles were effectively deducted twice, once in Austria where they were expensed, once in the PE jurisdiction through amortization deductions. This “loophole” was first closed in 2007⁶⁹ and then, in 2015, Austria implemented an entirely new exit tax regime.⁷⁰ Since then the transfer of intangible assets (including internally developed ones) abroad leads to the immediate realisation of hidden reserves (built-in gains). Upon application, the tax can be paid in instalments (initially over seven years, since 2019: over five years), if the intangible assets are transferred to an EU/EEA country.⁷¹

6.2. Tax accounting and “big data”

What does this mean in the context of “big data”? In the course of digitalization big data has got an enduring impact on the collection, use, application, marketing and above all on the analysis of digital data. A critical element of big data commercialization is the development and deployment of sophisticated data analytic tools, including algorithms, which allow the business to determine relationships and tendencies within very large data sets and derive insights therefrom.

The accumulated expenses for internally collecting data and for internally developing tools for the analysis of the data collected are deductible in Austria. The developer of these big data tools can deduct the expenses irrespective of whether these tools could be qualified as an intangible asset or not. When the Austrian developer sells (raw or aggregated) data, the price forms part of his revenues and is of course subject to tax (net taxation). In contrast, for the purchaser it does make a difference if the tools or the data acquired are qualified as an intangible asset or not because only if it is considered an intangible asset, does it have to be capitalized.

Up to now the question if “big data” qualifies as an (intangible) asset has not been discussed in Austria. However, in our opinion, the lines of argument by the Austrian Administrative Supreme Court in relation to market positions like pharmacy concessions⁷² can be applied by analogy to data. Consequently, acquired data can be characterized as an independent asset which has to be capitalized with its acquisition costs.

Assuming that acquired data qualifies as a (fixed) asset, a related question is whether it is depreciable. The right of depreciation of an asset has to be analysed on a case-by-case basis. In general, it is decisive, if the use of the asset is only temporary for either legal or

⁶⁹ See Atzmüller, Hammerl and Mayr, *AbgSi 2007: Wichtiges zur Einkommensteuer*, ÖStZ (2007), p. 748.

⁷⁰ In the course of the Tax Amendment Act (“Abgabenänderungsgesetz”) 2015, Austrian Law Gazette I No. 163/2015.

⁷¹ The reduction of the instalment-period from seven to five years was based on the EU-ATAD-Directive. See Mayr, *Wegzugsbesteuerung gem art. 5 Anti-BEPS-RL*, in Kirchmayr, Mayr, Hirschler, Kofler (eds.), *Anti-BEPS-Richtlinie* (Linde 2017), p 61.

⁷² See Mayr in Doralt (ed.) *ESTG-Kommentar*¹³ § 6, no. 8.

economic reasons.⁷³ In Austria, e.g., acquired goodwill or trademark rights are depreciable over 15 years.⁷⁴ However, “big data” is different. Although the “owner”, of course, has to maintain or develop the acquired “big data” – similar to a trademark – and although related expenses are deductible, the use of “big data” by itself does not seem to be temporary. As a result, in our opinion the acquisition costs for “big data” are not subject to regular depreciation.

If “big data” is transferred to a foreign permanent establishment, the hidden reserves are taxed (within the EU/EEA in instalments).⁷⁵ The Austrian exit taxation comprises assets and ‘other services’ (§ 6(6) EStG), so the taxation of the transferred “big data” does not depend on whether or not the data has been capitalized as an asset. It is not absolutely clear if the legal wording “other services” also comprises the temporary use of assets or “big data”. However, the Austrian tax authorities and most legal commentators consider the legal wording in a broader understanding.⁷⁶

⁷³ See Tiedchen in Herrmann, Heuer and Raupach, EStG-KStG-Kommentar²⁸⁵ § 5 no. E 327.

⁷⁴ For goodwill see § 8(3) EStG, for trademark rights see Para. 3195 EStR 2000.

⁷⁵ The transfer of intangibles from the head office to the permanent establishment is subject to an actual change in economic ownership; the attribution of intangible assets within an enterprise follows the Authorized OECD Approach (see para. 195 Austrian TPG 2010).

⁷⁶ See Mayr in Doralt (ed.) EStG-Kommentar³ § 6, no. 382.

Summary and conclusions

Belgium is striving for a data-driven economy. Research & development is encouraged by tax incentives, which may benefit data-driven business, e.g. the innovation income deduction. As in all EU member states, protection of personal data against abuse is of great concern in Belgium.

So far, hardly any legislative reaction is noticeable to the ‘big data’ phenomenon, i.e. the less and less expensive possibility to create value by gathering massive volumes of data (individually of little or no value) from varied sources and gaining insights from them through data analytics. A law proposal for a Belgian Digital Services Tax has been submitted. However, Belgium prefers participation in international initiatives (OECD and EU) and will not introduce such a tax alone before 2023.

As elsewhere, the legal status of data is partly uncertain and developing. Arguably, neither an *in rem* property right to data of the person holding or controlling it, is recognised, nor data ownership of individuals of personal data relating to them. No clear contract law framework exists for enterprises trading in data. Intellectual property (IP) legislation is important. Whilst raw data is generally unprotected, both aggregated data and fruits of data analytics (e.g. insights, algorithms, software and IT tools, databases) may entitle to protection of copyright, *sui generis* database producer right, and trade secrets, depending on the circumstances.

Belgian tax laws generally rely on notions of civil law – and thus incorporate some of its uncertainties about data. In any case, VAT does have some – EU-harmonised – specific rules for data transactions, especially for ‘electronically supplied services’.

In Belgian income taxation, data transactions result either in “professional income” or “income from movable assets and capital” (hereafter movable income) – the term ‘royalties’ is not used for such income in the Belgian Income Tax Code (ITC). Whilst professional income is a broad, residual category, movable income relevant for data transactions is covered by two sub-categories of article 17, § 1 ITC (i.e. 3° and 5°). Data transactions trigger movable income if they involve a concession, use rental or lease of a movable asset or of a movable

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right. The latter term links to civil law, including IP law with the three relevant IP rights addressed earlier. In our understanding, concession is a rather broad concept and may include ‘end-user licenses’ (which the OECD seeks to eliminate from the application of the royalties article in treaties). In the case of copyright, not only concessions result in movable income, but also the alienation of the right itself (cf. article 17, § 1, 5° ITC).

Domestic tax law provides for a Belgian source of professional income by application of the permanent establishment (PE) principle. Exceptionally, though, also non-PE income may have Belgian source (“catch-all clause”). Movable income is Belgian-sourced if either the debtor is a Belgian resident, or the expense is borne by the Belgian PE of a non-resident. Under Belgian tax treaties in line with the OECD Model Convention (OECD MC) / Belgian standard model, the application of article 7(1), 12(1), 13(5) or 21(1), depending on the circumstances, usually means no taxation is allocated to Belgium as source country. This may be different under treaties following the UN Model Convention (UN MC) pursuant to article 12 royalties, article 12A technical services – and in the future article 12B for automated digital services (2021 UN Model update – not yet available).

If movable income arises from data transactions, the law requires a Belgian debtor (including private individuals) to duly perform withholding tax (WHT) compliance – even if a tax treaty excludes Belgian taxation (nil return). The income debtor may encounter difficulties ascertaining whether the other party indeed holds relevant IP-protected rights. Moreover, multitude and speed of data transactions as well as valuation uncertainties sow doubt whether the existing WHT compliance framework – rather tailored to infrequent transactions – is adequate. Belgian tax authorities ease the WHT compliance burden by waiving it for intra-Belgian transactions (‘unconditional exemption’) – but data transactions are often cross-border.

A distinct feature of big data business is the collection of (typically raw) data provided by third parties who do not receive a monetary remuneration. “Free” internet services are usually “paid for” by users through the disclosure of personal data to the service provider (and often its “partners”). In our view, the provision of data in such situations does not usually constitute a barter exchange for tax purposes. Another common feature of big data is that physical devices (e.g. sensors) for the data collection are present at premises of (third-party) users / customers. In our understanding, these devices generally do not fulfil the conditions under Belgian domestic law and treaties for a PE of the data-collecting enterprise. PE income allocation would in any case be challenging.

The data value chain of data collection, data aggregation, data analysis, and data use / monetisation can take place within a single company but will often be accomplished within a group of companies with several contributors. This is true not only for data-enabled business (fully reliant on data for revenue generation, and would not exist without access to large data amounts and advanced data analytics), but also for data-enhanced business (data is used to improve existing products or overall capacities and business efficiency). For multinational enterprises (MNE), the internationally recognised OECD Transfer Pricing Guidelines (2022) are fully applicable in Belgium. Absent data-specific guidance in these Guidelines, the relevant key principles are those for intangibles. In our understanding, data (even raw data) can generally be characterised as intangible for TP purposes. Data sharing within an MNE seems possible without remuneration if the sharing entity can expect a benefit – which can be either data sharing by other entities or another benefit, e.g. the use of data analytics products / tools that another entity develops from centrally collected data. Where several group entities are involved, the DEMPE Guidelines (development, enhancement, maintenance, protection, exploitation) for intangibles apply for determining the economic

owner(-s). The economic owner(-s) are entitled to the intangibles' proceeds but also bear the losses in case of failure. Instead of a central developer, data analytics intangibles can be created also by several group members under a cost contribution agreement.

Introduction: Legal background

Belgium – like the OECD³ and the EU⁴ – strives for innovation through a data-driven economy, expecting e.g. improved health care, safer transport, sustainability, energy efficiency, new products and services. Technological drivers include data analytics, artificial intelligence (AI) and the Internet of Things (IoT). The EU's Digital Economy and Society Index (DESI) 2021 notes that Belgian businesses rank high in the use of cloud services and big data solutions as well as in electronic information sharing.⁵

What does “data” and “big data” actually mean? “Data” can be understood as the representation of facts stored or transmitted as qualified or quantified symbols.⁶ Data has no inherent meaning. In contrast to knowledge or information, data has an “objective existence” and can be measured in bits and bytes. “Big data” is often characterised by the “3 V’s”, namely Volume (which became an issue in terms of data management and processing), Velocity (the speed at which data is generated, accessed, processed and analysed – ‘real-time’), and Variety (referring to unstructured data and the capacity to link diverse data sets). The OECD considers the 3Vs as misleading by suggesting that data are the main source of value, because that is true only for volume, whereas what is behind velocity and variety is primarily data analytics.⁷ “Data analytics” refers to the techniques and tools for extracting information from data, revealing the data’s manifold hidden relations (patterns) including correlations and interactions.⁸

Concerning commercial law principles relevant for big data, this branch report generally refers to the general report but addresses legal concepts that might influence the interpretation of tax provisions. The Belgian legal framework is strongly influenced by EU legislation. The “Digital Single Market” comprises measures such as the Regulation (EU) 2018/1807 on the free flow of non-personal data in the EU.⁹ Also harmonising legislation on the protection of intellectual property¹⁰ and personal data (GDPR¹¹) is important.

³ E.g. OECD (2015), *Data-Driven Innovation. Big Data for Growth and Well-Being*, <https://dx.doi.org/10.1787/9789264229358-en>.

⁴ European Commission Communications of 19 February 2020, *A European strategy for data*, COM(2020) 66 final, and of 10 January 2017, *Building a European data economy*, COM(2017) 9 final.

⁵ <https://ec.europa.eu/newsroom/dae/redirection/document/80474>, at 12.

⁶ OECD (2015), at 449.

⁷ *Ibid.*

⁸ *Ibid.*, at 452.

⁹ A European data infrastructure is considered to foster inter alia digital sovereignty (“Gaia-X” – <https://www.data-infrastructure.eu/GAIX/Navigation/EN/Home/home.html>).

¹⁰ EU minimum standards are included in Directive 2019/790 on copyright and related rights in the Digital Single Market, Directive 96/9/EC on the legal protection of databases, Directive 2016/943 on trade secrets, and Directive 2009/24/EC on the legal protection of computer programs. Trademarks (Directive 2015/2436) and community designs (Regulation 6/2002), covered also by the 2005 Benelux Convention (trademarks and designs), seem of less direct significance for data-driven business.

¹¹ General Data Protection Regulation (EU) 2016/679, applicable since 25 May 2018.

Belgian civil law falls in the competence of the federal legislator and mainly consists of the Civil Code (CC) and the Code of Economic Law (CEL). Originating in the Code Napoléon, the CC is currently being overhauled in instalments.¹² As all around the world¹³, Belgium has an ongoing legal and policy debate on the status of data, including the key issue whether ‘data ownership’ exists – or should exist.¹⁴ As Belgian civil law stands, a property right (*in rem*) does not seem recognised for data as such (even if aggregated in a database). The overhauled definition of “assets” in article 3.41 Civil Code (new)¹⁵, applicable since September 2021, has rather not changed this.

Protection of intellectual property (IP) may arise, though, for data:¹⁶

- (i) Copyright¹⁷ covers data as such only exceptionally, e.g. text or graphics. Data, especially raw data,¹⁸ lacks intellectual human intervention and consciousness of achieving a result; also, “fixation” (saving work in a tangible form) is not evident.¹⁹ A database structure (selection made or arrangement) can however be an intellectual creation.²⁰
- (ii) The *sui generis* right of database makers²¹ (‘database right’) arises for a database²², whether “original” or not, if there has been a substantial quantitative or qualitative investment by the database maker for obtaining,²³ verification, or presentation of the contents of the database. The database right is a transferable right lasting 15 years from completion, but a new substantial investment opens another 15-year term.²⁴ Absent international agreements, generally only EU residents qualify as database makers.²⁵
- (iii) For trade secrets, i.e. undisclosed know-how and business information, Belgium has only recently (2018) implemented an EU-aligned protection against unlawful acquisition, use and disclosure.²⁶ Covered information comprises commercial data such as information on customers and suppliers, business plans, and market research and strategies.²⁷

¹² Provisions of the overhauled parts are referred to as “CC (new)”.

¹³ E.g. L. Determann, No One Owns Data (14 February 2018), <https://ssrn.com/abstract=3123957>; Drexler et al., Data ownership and access to data (16 August 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2833165.

¹⁴ E.g. A. Strowel, Mutations des propriétés intellectuelles et du droit d’auteur à l’ère des données (data ownership, text and data mining, hyperlinking), *Auteurs & Media* 2017/4, 319 ff.

¹⁵ “Assets (*goederen/biens*) in the broadest sense are all objects susceptible of appropriation including property rights (*vermogensrechten/droits patrimoniaux*)”; cf. parliamentary motives in DOC 54, 3348/001, at 103 f.

¹⁶ Instructive comparative analysis by Belgian lawyers: Bird & Bird, White Paper: Building the European Data Economy. Data Ownership (see Bibliography).

¹⁷ Arts. XI.165 ff. CEL.

¹⁸ Raw data (also ‘primary data’) is data collected from a source without further processing.

¹⁹ Bird & Bird, *ibid.*, at 69 f.

²⁰ Art. XI.186 CEL.

²¹ Arts. XI. 305 ff. CEL.

²² Collection of independent works, data or other materials which are (i) arranged in a systematic or methodical way, and (ii) individually accessible by electronic or other means; cf. art. 1(2) EU database directive.

²³ Obtaining of contents relates to seeking out *existing* independent materials only – as opposed to *creating* the contents; cf. Court of Justice of the European Union (CJEU), *British Horseracing* (C-203/02), judgment of 9 November 2004.

²⁴ Cf. art. XI.308 and XI.309 CEL.

²⁵ Art. XI.315 CEL.

²⁶ Art. XI.332/1 ff CEL (underlying is the EU trade secrets directive, based on the international TRIPS Agreement).

²⁷ Cf. Preamble para. 2 EU trade secrets directive.

Information qualifies for protection if it is secret²⁸, has commercial value because it is secret, and has been subject to reasonable steps, by the person lawfully in control of the information, to keep it secret (often by non-disclosure agreements – NDA).²⁹

All three IP rights are automatic, unregistered rights. So, in the big data context with myriads of datasets and high-speed processing, uncertainty about the precise status of IP rights seems inevitable.³⁰ For machine-generated data,³¹ the European Commission expressed the view that at EU level raw machine-generated data as such does not generally meet the relevant conditions of IP protection.³² The concern then precisely was whether there ought to be a “data producer’s right” (for non-personal data) to encourage data sharing with enterprises that do not themselves produce data nor otherwise have easy data access.³³

With IP protection uncertain, businesses protect their data by technical means (e.g. access limitation) as well as contractual law.³⁴ Belgium has no specific codified contract law framework for data transactions. An ambitious transnational project on developing “Principles for a Data Economy”³⁵, conducted by the American Law Institute and the European Law Institute, has come to fruition in September 2021³⁶ and might inspire future legislation. Currently, contractual freedom provides parties of data transactions with the possibility, and responsibility, to formulate suitable clauses. In practice, we have seen that data transfers were labelled “sale” (transfer for permanent use) or “rent” (for temporary use only).

Finally, the strong protection of personal data³⁷ within the EU³⁸ – recently highlighted through the CJEU’s *Schrems II* decision – shall be addressed.³⁹ Data subjects must always maintain control over their personal data (which includes the right to erasure – article 17 GDPR). Could individuals literally be the “owner” of personal data concerning them, thus excluding ownership rights of others, e.g. data controllers? Arguably, this is currently not

²⁸ Information is considered secret if it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question.

²⁹ Art. I.17/1, No. 1 CEL.

³⁰ A far-reaching protection of datasets as trade secrets is contemplated by G. Surblyte, *Data as a Digital Resource*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2849303.

³¹ Data created without direct intervention of humans by computer processes, applications or services, or by sensors processing information received from equipment, software or machinery, whether virtual or not. Machine-generated data can be non-personal or personal in nature.

³² Communication by the European Commission of 10 January 2017, *ibid.*, at 10.

³³ The Commission proposal for a Data Governance Act of 25 November 2020, COM(2020) 767 final, aims to foster data availability, including sharing among businesses against remuneration in any form and ‘data altruism’.

³⁴ For a comparative analysis including Belgium, comprising contract law issues, see Osborne Clarke, *Legal study on Ownership and Access to Data* (2016), doi:10.2759/299944.

³⁵ A project leader aptly stated: “In data economy, tradeable items cannot readily be classified as goods or rights, and they are arguably not services either. Also, notions of ownership and possession do not really fit with data”; C. Wendehorst in: De Franceschi/Schulze (eds.), *Digital Revolution – New Challenges for Law* (2019), at 42.

³⁶ https://europeanlawinstitute.eu/fileadmin/user_upload/p_eli/Publications/ALI-ELI_Principles_for_a_Data_Economy_Final_Council_Draft.pdf.

³⁷ Any information that relates to an identified or identifiable living individual. Examples: name, home address, ID number, email address, Internet Protocol (IP) address, cookie ID, advertising identifier of phone.

³⁸ GDPR with Belgian accompanying law of 30 July 2018. Moreover, Directive 2002/58/EC on privacy and electronic communications (‘ePrivacy Directive’).

³⁹ Judgment of 16 July 2020, C-311/18, concerning data transfers by Facebook Ireland to the US.

the case.⁴⁰ Strict obligations on data controllers and processors point towards secrecy of personal data, possibly relevant for trade secret protection. Finally, the EU directive on contracts for the supply of digital content and digital services ('DSD')⁴¹ shall be mentioned. From 2022, it grants consumer protection where individuals receive internet services without paying monetary compensation but provide their personal data. However, referring to that as "counter-performance" (as in the Commission's proposal) was carefully avoided.⁴² The reluctance within the EU (and Belgium) to legislate on the trading in personal data may explain some of the legal and tax uncertainties.

Part One: Basic principles: Character, source and nexus

1.1. General overview

Belgian taxation of data-driven business is governed by the Belgian Income Tax Code 1992 (ITC) and the Belgian VAT Code (see Part Five).

1.2. Character

1.2.1. Framework

Belgian income tax legislation has no specific provisions characterising income from data transactions.⁴³ The interpretation of Belgian tax law generally relies on notions of civil law.⁴⁴ However, even the latter currently offers only limited clarity for data transactions (see the Introduction).

Belgian income tax legislation⁴⁵ distinguishes four income categories: (i) immovable income, (ii) income from movable assets and capital, (iii) professional income, and (iv) miscellaneous income. For data-driven business, mainly relevant are income from movable assets and capital (hereafter 'movable income') and professional income.

Movable income is defined by sub-categories. Two of these are relevant for data transactions:

- (i) Income from the rental, lease, use and concession of movable assets (article 17, § 1, 3° ITC);

⁴⁰ *Contra* also Bird & Bird, *ibid.*, at 4.

⁴¹ Directive (EU) 2019/770 of 20 May 2019.

⁴² The European Data Protection Supervisor (EDPS) had chosen drastic wording: "There might well be a market for personal data, just like there is, tragically, a market for live human organs, but that does not mean that we can or should give that market the blessing of legislation. One cannot monetise and subject a fundamental right to a simple commercial transaction, even if it is the individual concerned by the data who is a party to the transaction" (Opinion 4/2017 of 14 March 2017, para. 17).

⁴³ Only a side aspect is addressed by art. 90, 12° and art. 228, § 2, 9° lit. k ITC: The personal remuneration of Belgian and foreign-resident university researchers from exploiting an invention, which term comprises databases capable of use for commercial purposes, is characterised as 'miscellaneous income'.

⁴⁴ E.g. S. Van Crombrugge, *De grondregels van het fiscaal recht*, Antwerpen (2018), nr. 37 / 42.

⁴⁵ Art. 6 and art. 183 ITC.

- (ii) Income from the transfer or concession of copyrights and related rights as well as of legal or mandatory licenses (article 17, § 1, 5° ITC).⁴⁶

The term “royalties” is not utilised in the ITC. Therefore, we do not use it to denote movable income pursuant to article 17, § 1, 3° or 5° ITC. The term ‘royalties’ (NL: *royalty's* / FR: *redevances*) does appear in tax practice, though.⁴⁷ The term “movable assets” in article 17, § 1, 3° BITC – not defined in the ITC – covers both tangible and intangible assets, i.e. *goods* movable by their nature and movable *rights*.⁴⁸ “Concession” means an agreement for consideration granting the right to exploit, or to make use of, a good or right – without however bringing about an ownership transfer.⁴⁹ The Commentary on the ITC (Comm.ITC) lists as examples of rights patents, manufacturing processes (whether or not patented), trademarks, sales licences, rights to distribute or show cinema films and other audio-visual works, to broadcast radio and television, and other similar intangible rights of movable nature such as the exclusive representation of a product.⁵⁰ The Comm.ITC (with rather dated texts) does not address in which data transactions (if any) the supplier’s position involves a movable asset, and when use or concession is granted.

Professional income⁵¹ is a very broad category, covering profits from a business or independent activity as well as salaries and pensions. In terms of business transactions, the income from the sale or exchange of business assets (fixed and current) and from services is included. Some provisions require further characterisation of a transaction, e.g. realised capital gains may benefit from roll-over relief if a depreciated intangible fixed asset was *alienated*; income from *services* of a non-resident may have its source in Belgium (see section 1.3). Except for withholding tax purposes, movable income is generally re-characterized in professional income if the underlying assets are used for the income recipient’s professional activity (article 37 ITC).

Where remuneration relates to both movable income and services, e.g. advice or technical assistance, the following guidance applies in the context of withholding tax rules:⁵² Generally, each income element should be treated according to its rules. If a case-by-case analysis reveals that the contract between the parties does not allow a split, it is necessary to determine whether one element is ancillary to the other. If the service element is ancillary, the entire remuneration shall be treated as movable income.

⁴⁶ This second sub-category, introduced with effect from 2008, is *lex specialis* to the first sub-category and leads to a beneficial tax regime for individuals exercising a professional activity and deriving income from copyrights (et al.), mitigating progressive taxation.

⁴⁷ E.g. para. 17/3, 5° of the Belgian Tax Administration’s Commentary on the ITC (Comm.ITC) for income pursuant to art. 17, § 1, 3° ITC.

⁴⁸ Para. 17/2 Comm.ITC.

⁴⁹ Para. 17/3, 5° Comm.ITC.

⁵⁰ *Ibid.*, with references to older case-law.

⁵¹ Art. 23 ff. ITC.

⁵² Para. 261/465 Comm.ITC.

1.2.2. *Data-driven business' and 'data transactions'*

Data-driven business is not a homogeneous industry:⁵³

- 'Data-enabled businesses' have developed revenue generation strategies fully reliant on data and would not exist without access to large amounts of data and advanced data analytics. Revenue will likely be generated from selling or licensing data, or from selling entirely new data-related products.
- 'Data-enhanced businesses' exploit data to better coordinate pre-existing business operations, to facilitate decision-making and to introduce new goods and services; data does not alter or determine their core business models. Data is used to improve existing products or overall productive capacities and business efficiency.

Instructive is the 'data value chain': (i) data collection, (ii) data aggregation, (iii) data analysis, (iv) data use and monetisation.⁵⁴ A heuristic vision is the 'DIKW pyramid'⁵⁵: **D**ata is turned into **I**nformation, then into **K**nowledge and ultimately **W**isdom. Finally, the inevitable metaphor of "data as the new oil"⁵⁶ fits because of the enormous stock exchange value of big data businesses and also because it highlights the "refining" process necessary for data to reach value. The metaphor falls short, though, since data, unlike oil, is a non-rivalrous resource – it can be used and shared infinitely.

This IFA Subject examines three 'data transactions': i) transfer of raw data, ii) transfer of, or access to, aggregated data, and iii) big data analytics.

1.2.2.1. *Transfer of raw data*

Raw data can be collected from manifold sources, e.g. instruments, machines, websites, but also "offline" sources, e.g. loyalty cards. Raw data can contain personal data, e.g. gathered via website cookies or social media. Often, repeated raw data transfers occur (data feed). Contracts on raw data transfers (usually B2B) do not, under present Belgian civil law, entail the transfer of "property" (*in rem*) by the transferor, as no "data ownership" is legally recognised (see the Introduction). Rather, the transferor generally owes only the factual transmission and does not "give up" anything, as the transfer simply copies the data to the transferee. Intellectual property to raw data will not as a rule exist for non-personal data (see the Introduction). For personal data, with its strict rules for data controllers, the "secrecy" threshold might be more easily reached, however trade secret protection arises only if all conditions are fulfilled.

Raw data transfers generally result in professional income (article 23 ITC), and only exceptionally in movable income (article 17, § 1, 3° ITC). Movable income can arise if a movable *physical asset* is involved. Apart from rare transfers via a physical storage medium that needs to be returned (e.g. USB stick), this could be considered where (remote) access is granted to data originating from a physical data source (e.g. machine or sensor). In our view,

⁵³ OECD (2020), *Measuring the Economic Value of Data and Cross-Border Data Flows*, at 5.

⁵⁴ *Ibid.*

⁵⁵ OECD (2013), *New sources of growth: knowledge-based capital (II)*, at 8.

⁵⁶ E.g. M. Szczepański, *Is data the new oil?*, European Parliamentary Research Service (EPRS) Briefing (January 2020), [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646117/EPRS_BRI\(2020\)646117_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646117/EPRS_BRI(2020)646117_EN.pdf).

however, the physical object itself is not actually used. Movable income could also arise if a concession is granted to exploit, or make use of, a movable *right*, which term is linked to civil law. Copyright or database right to raw data will not generally exist, however trade secret protection may be given. Although its protection against misappropriation seems less “absolute” than copyright and database right,⁵⁷ it suffices for article 17, § 1, 3° ITC in our view.⁵⁸ If in contrast the transferor holds no IP right whatsoever and merely exploits the factual position of controlling raw data, no movable income can arise in our understanding, as neither a physical asset nor a right is involved.⁵⁹ Otherwise, the provision would lose all contours. The result remains unchanged if (remote) access to raw data from user traffic on a non-physical (“virtual”) data source, e.g. a website, is granted.⁶⁰ Even if website ownership/control involves movable rights (e.g. database right for website elements), the transfer of incoming raw data from user traffic seems no exploitation or use of these rights.

If raw data transfers exceptionally involve a movable right, the follow-up question is whether any type of “use” or “concession” by the transferee qualifies. Whilst a commercialisation vis-à-vis third parties (e.g. on-selling) seems certainly covered, that is less clear for other uses, e.g. a targeted advertisement campaign. We see however a broad application and also “end-user license” situations included (no royalties pursuant to the OECD; see section 2.2).

1.2.2.2. *Transfer of, or access to, aggregated data*

The second step in the data value chain is data aggregation, i.e. the compilation of data from various sources⁶¹ to prepare combined datasets suitable for data analysis. Monetisation can happen by transfer against remuneration of the aggregated data – selected datasets from a bigger database or an entire database. Technically, holders of aggregated data may also choose not to actively transfer the data but to grant the other party database access. In our view, the tax treatment does not differ.

As for raw data transfers, the delineation between professional income and movable income (article 17, § 1, 3° or 5° ITC) is key. The main difference with raw data is that businesses holding aggregated data are much more likely to hold one or several IP rights: copyright for an original database structure, database right,⁶² trade secret.⁶³ For copyright, article 17, § 1, 5° ITC covers the exploitation not only by concession but also by transfer (i.e. alienation of copyright). In contrast, database right and trade secret are covered by article 17, § 1, 3° ITC, addressing concessions only. Hence, an alienation of these rights would generally result in

⁵⁷ The Title XI CEL (“Intellectual property and trade secrets”) hints towards distinction.

⁵⁸ Cf. para. 17/3, 5° Comm. ITC, which lists manufacturing processes (patented or not) and Court of Appeal Gent, judgment of 30 March 1965, NV Union, Bulletin 427, at 225. Nowadays, a non-patented manufacturing process would presumably be a protected trade secret.

⁵⁹ *Tertium non datur*.

⁶⁰ Typically, via application programming interface (API).

⁶¹ E.g. structured data as in traditional databases with rows and columns, semi-structured as in websites, or unstructured data, requiring pre-processing tools, e.g. data mining, natural language processing (NLP).

⁶² Movable right pursuant to art. XI.308 CEL.

⁶³ Possibly art. 17, § 1, 3° and 5° ITC applies.

professional income.⁶⁴ If concessions are at stake (article 17, § 1, 3° or 5° ITC), the follow-up question arises again which forms of use are covered (see section 1.2.2.1).

Contracts concerning aggregated data may comprise service elements. A database owner may agree with its customers to perform, before data transfer, selections to match customer parameters (e.g. geographical criteria, spending characteristics). Offering a web interface for online database access may also contain service elements. A case-by-case analysis needs to reveal whether a remuneration split is possible and, if not, which of the two elements is ancillary (see section 1.2.2.1).

1.2.2.3. *Big data analytics*

(Big) data analytics is the discipline encompassing the complete management of data, including collection, cleaning, organising, storing, and analysing data as well as the tools⁶⁵ and techniques used. The most valuable element is data analysis, the third step of the data value chain.⁶⁶ Data analysis techniques include data mining / text mining (statistical modelling and knowledge discovery for predictive rather than descriptive purposes) and business intelligence (relying on aggregation with focus on business information). Crucial is the development of mathematical formulas or models (algorithms) to identify relationships among variables or recognise patterns. The data examination may be autonomous or semi-autonomous and can involve machine learning (facilitating open-ended explorations for patterns, without clear prior questions or hypotheses being necessary), semantic analysis, and neural networks.⁶⁷ The outcome may often be “Know-what” without “Know-why”.⁶⁸

Once insights have been extracted from data, the knowledge is applied either by humans or by machines (algorithmic decision-making), e.g. allowing mass customisation of advertisements or purchase recommendations appearing when users access websites. Given the myriad of ways to use or monetise the insights gained by data analysis, there is not one income characterisation for tax purposes. Often, there will not be a direct monetisation, but businesses use the insights “inhouse” to enhance their core activities within the company or the group. If so, the income characterisation is determined by the directly monetised economic output (goods/services). Belgium has no income tax rules that depend on whether an output is enhanced by big data analytics. So, social media (e.g. Facebook), search engines (e.g. Google) and other businesses with large user traffic can sell, through big data analytics, highly targeted advertising services and derive tax-wise professional income. The same is true for consultants providing business advisory services to clients after extensive process-mining.

However, a more direct monetisation of data analysis results or underlying models (algorithms) may constitute a transfer or concession of intellectual property, resulting in

⁶⁴ Scholarly writing considers an analogous application of art. 17, § 1, 5° ITC for database rights; cf. J. Wellens, *Personenbelasting* – <https://monkey.wolterskluwer.com/nl/document/mnco12988434-12989565>.

⁶⁵ Common data analysis software is often open source, e.g. Python library Pandas; programming language and software environment R.

⁶⁶ “Big Data is not about the data” – the real achievement is turning data (often easily obtainable and cheap) into actionable insights; see G. King, https://gking.harvard.edu/files/gking/files/prefaceorbigdataisnotaboutthedata_1.pdf, at 1.

⁶⁷ <https://www.gartner.com/en/information-technology/glossary/advanced-analytics>.

⁶⁸ Cf. OECD (2013), *ibid.*, at 9.

movable income (article 17, § 1, 3° or 5° ITC). If for instance the output is a formatted data feed visualising data analysis results on weather, it may be copyrighted. Moreover, ‘fruits’ of big data analytics may fulfil the threshold of trade secret protection, e.g. specific insights (know-how) gained, data analysis algorithms⁶⁹ developed, and valuable datasets having arisen in the process.

1.3. Source

1.3.1. Framework

Currently, Belgian tax law has no specific source rules for income from data transactions. Hence, general rules apply. Belgian residents are taxed on worldwide income regardless of its source, and non-residents are taxed on Belgian-source income.

1.3.2. Belgian-source income

Belgian-source income is specified in article 228 ITC. For data-driven business, three clauses are relevant:

(i) Article 228, § 2, 2° ITC

If data transactions result in movable income (article 17, § 1, 3° or 5° ITC), it has Belgian source provided that the debtor of the income (company, legal entity, or individual) is liable to Belgian income taxation as resident, or as non-resident (if expense is borne by a Belgian permanent establishment of a non-resident).

(ii) Article 228, § 2, 3° ITC⁷⁰

If data transactions result in professional income, the source is Belgian if the non-resident has a permanent establishment (PE) in Belgium under domestic law and to the extent that income is allocable to it (no ‘force of attraction’). The domestic law notion of fixed PE pursuant to article 229, § 1 ITC very much resembles that of article 5(1), (2) OECD MC, without however excepting preparatory or auxiliary activities (unlike article 5(4) OECD MC). Belgium has no special rule for physical devices serving data collection, e.g. sensors, smart speakers. In our view, the (unwritten) requirement of power of disposition over such devices in someone’s home or business premises will not normally be fulfilled.

Unlike article 5 OECD MC, Belgium has the notion of a ‘service PE’ (article 229, § 2/1 ITC). However, it seems irrelevant for data transactions, as only the presence of natural persons in Belgium on more than 30 days in a 12-month period for the provision of services triggers a service PE.

⁶⁹ By their nature, algorithms can rather not be protected as patent or by copyright.

⁷⁰ Art. 228, § 2, 3°bis ITC exceptionally applies (‘exit tax’), i.e. where a foreign data-driven business withdraws fixed assets from a Belgian PE (e.g. copyrights, other IP rights).

In 2019, some members of Belgian parliament proposed legislation⁷¹ that would deem a Belgian PE if the criteria of a “significant digital presence” are met (article 229, § 1, 2°bis ITC – Draft). The proposal, inspired by a European Commission proposal of 21 March 2018⁷², was not adopted.

(iii) Article 228, § 3 ITC⁷³

If data transactions result in professional income but the foreign enterprise has no Belgian PE, the income exceptionally still has Belgian source, i.e. if the following conditions are cumulatively met: (a) Income is derived from “whatever type of service”, (b) Service is provided to a recipient liable to Belgian income tax (resident company, legal entity or individual, or non-resident enterprise with Belgian PE); (c) “Bond of mutual dependence”, directly or indirectly, between supplier and recipient; and (d) either Belgium is allocated income taxation under tax treaty, or, in non-treaty situations, the income recipient fails to prove the income’s effective taxation in their residence state.

The provision effectively applies to income from data transactions in intra-group situations if the service provider resides in a no-tax country without treaty with Belgium (in contrast, an OECD MC-like tax treaty normally excludes Belgian taxation; see Part 2). The term “services” is not defined in the ITC but has a wide scope (“of whatever type”). Movable income – having its own source rule; see (i) above – seems excluded, though.⁷⁴ Therefore, the provision is likely to apply particularly where the data transferor holds no IP rights to the data.

1.3.3. *Foreign-source income*

Belgian residents are liable to Belgian income tax on worldwide income. A “lump-sum foreign tax credit” on movable income is available, if the movable income was actually⁷⁵ subject to a tax abroad comparable to Belgian income tax, and if the underlying assets are used for the exercise of professional activity in Belgium (article 285 ITC). So, when a Belgian company concludes a data transaction involving an IP right with a foreign counterparty, a lump-sum foreign tax credit may be available. If the foreign tax withheld is below 15%, the tax credit is higher than the actual foreign tax borne (see section 4.3.3).

⁷¹ Cf. DOC 55, 0095/001, <https://www.lachambre.be/FLWB/PDF/55/0095/55K0095001.pdf> (previously DOC 54, 3483/001).

⁷² COM(2018) 147 final; detailed analysis by S. Gommers and T. Wustenberghs, ‘Aanmerkelijke Digitale Aanwezigheid’: op weg naar een virtuele vaste inrichting?, AFT 2019, 5 ff.

⁷³ The original provision (2013) was very broad, which has earned it the nickname “catch-all clause”. The scope is considerably narrower since 2016.

⁷⁴ On delineation of services from movable income generally, see C. Devillet and X. Van Vlem, *Enterprise Services*, IFA Cahiers 2012 (Vol. 97a), at 137 ff.

⁷⁵ Belgian Tax Administration’s Commentary on Tax Treaties (‘Comm.TT’), para. 23/123.

1.4. Nexus

The liability of non-residents (companies, legal entities, individuals) to Belgian income tax on non-residents is determined by article 227, 1° - 3° ITC. If a non-resident derives professional income allocable to its Belgian PE, Belgian income tax on this Belgian-source income (see section 1.3.2 (ii)) is imposed by tax assessment of the non-resident. Otherwise, Belgian tax is imposed as withholding tax to be withheld by the payor, either as “movable withholding tax” if movable income is derived, or as “professional withholding tax” if professional income not allocable to a Belgian PE is exceptionally taxable; see section 1.3.2 (i) and (iii), resp. For practicability considerations, see under Part 7.

No specific rules for data transactions have been introduced so far. Belgium might well be open for creating a taxable nexus linked to extensive collection (and exploitation) of personal data obtained via the internet, if such nexus were agreed at EU or international level.⁷⁶

Part Two: Application of treaty principles

2.1. General overview

As a ‘small open economy’, Belgium has traditionally maintained an extensive network of bilateral treaties. Tax treaties with 95 countries are in force.⁷⁷ Belgian tax authorities use a Belgian standard model (BSM) as starting point for negotiations. The current BSM dates from 2010 and is largely based on the (then current) OECD MC.

Under Belgian treaties following the OECD MC, taxation of income from data transactions (regardless of its domestic law characterisation as professional or movable income; see section 1.2) is generally exclusively allocated to the income recipient’s residence state, unless the income recipient maintains a PE in the other state and the income is allocable to this PE. About 1/3 of Belgian treaties follow the OECD MC, including those with important trading partners France, Germany, Netherlands, UK and US. About 2/3 of the Belgian treaties allow some form of concurrent taxation of royalties, where the source state may impose a (limited) withholding tax on the gross amount. This is inspired by article 12(2) UN MC and mostly the case in treaties with developing countries.⁷⁸

2.2. Detailed comments

Under treaties following the OECD MC/BSM, the exclusive allocation of taxation to the income recipient’s residence state (absent a PE) may result for income from data transactions

⁷⁶ Cf. 2014 Report of the Commission Expert Group on Taxation of the Digital Economy, <https://studylib.net/doc/14819579/commission-expert-group-on-taxation-of-the-digital>, at 47.

⁷⁷ P. De Vos and C. Docclo, *Reconstructing the treaty network*, IFA Cahiers 2020 (Vol. 105a), at 115.

⁷⁸ Cf. para. 12/201 Comm.TT, and Parliamentary question nr 5-10212 W. Demeyer (24 October 2013, www.senate.be), where the Minister of Finance confirms that for treaties with developing countries the UN Model serves as inspiration for negotiations.

from the application of various articles, depending on the circumstances:⁷⁹ Royalties (article 12(1) OECD MC/BSM)⁸⁰; Business profits (article 7(1) OECD MC/BSM); Capital gains (article 13(5) OECD MC/BSM); Other income (article 21(1) OECD MC/BSM).

The Royalties articles in Belgian tax treaties contain their own definitions (cf. article 12(2) OECD MC). In data-driven business, royalties may arise in various forms, e.g. for remuneration relating to the use of, or the right to use, a (i) copyright of literary, artistic or scientific work (copyright in database or software), (ii) a secret formula or process, or (iii) information concerning industrial, commercial or scientific experience (often referred to as “know-how”). Not covered by the royalties definition is generally the *sui generis* database right of EU database makers (or subsequent right-holders).⁸¹ Some Belgian treaties have a “catch-all” element⁸² in the royalties definition, which might capture income from some data transactions.

In practice, the application of the Royalties article to concrete situations of data transactions will be far from easy, given the unregistered nature of IP rights concerned and the potential need to review even foreign law. We would generally not consider a payment for a raw data transfer to result in a royalty (see already under section 1.2.2.1). For aggregated data, copyright may exist; the database right however is not covered (see above). Aggregated data may also be information concerning industrial, commercial or scientific experience. We agree with the OECD Model Commentary⁸³ that the payment for a list of potential customers to which the payee has provided a particular product or service, constitutes a payment for know-how (concretely, ‘commercial experience’ of payee in dealing with these customers). As concerns big data analytics, payments for information on logic, algorithms or programming languages or techniques may constitute royalties.⁸⁴ An open question seems whether the exclusion from royalties of “end-user license” situations for (shrink-wrap) software and digital products (e.g. images, sound, text) favoured by the OECD⁸⁵ has importance also for data transactions. For instance, remuneration for use of the copyright in a database structure might be excluded from royalties, where no exploitation of this database structure vis-à-vis third parties is intended. In any case, we note that pursuant to the UN MC Commentary (2017)⁸⁶ such kind of payments may constitute royalties according to some members. However, said Committee did not reach a final conclusion on an adapted definition in article 12(3) UN MC in its 21st session (October 2020).⁸⁷

⁷⁹ D. Scornos, Katholieke Universiteit (KU) Leuven is carrying out doctoral research on the international tax characterisation of income from purely digital transactions; cf. <https://lirias.kuleuven.be/retrieve/536468>.

⁸⁰ Art. 12 BSM comprises in para. 4 a debtor-based source rule (contracting state is source if the debtor is a resident or has a PE there which bears the cost) similar to the one in art. 12(5) UN MC. See also para. 12/501-504 Comm. TT.

⁸¹ B. Springael in: P. Bielen and S. Janssens (eds.), *Het Belgisch standaardmodel van dubbelbelastingverdrag* (2018), art. 12, para. 683.

⁸² Cf. “incorporeal movable property” (France), “secret formula or process or other intangible property” (Chile).

⁸³ Art. 12, para. 11.4, fourth indent *in fine*.

⁸⁴ Art. 12, para. 11.5 OECD MC Commentary.

⁸⁵ Art. 12, paras. 14 and 17.2 OECD MC Commentary (copyright solely used for downloading and enabling the effective operation by user).

⁸⁶ Art. 12, para. 12 (page 311).

⁸⁷ <https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2021-03/English.pdf>, p. 9. In any case, 24 Belgian treaties do include software royalties, inter alia USA, Spain and Singapore.

With respect to Belgian tax treaties containing clauses on fees for technical services,⁸⁸ we refer to article 12A UN MC as added in 2017 and the related work of the UN Tax Experts Committee. Finally, it shall be mentioned that this Committee concluded in its 22nd session (April 2021) on the introduction of a new article for income from automated digital services as article 12B UN MC.⁸⁹

The royalties definition includes payments for the use of, or right to use, industrial, commercial or scientific *equipment* in Belgian treaties that are aligned with the UN MC or with former versions of the OECD MC,⁹⁰ e.g. the 1967 tax treaty with Germany. In data transactions, devices for data collection such as sensors might fall under this clause. Generally, the clause can be fulfilled only if the device is owned by the party whose data is collected and the data-collecting party would remunerate its use.

Data transactions may involve income relating to several treaty articles, e.g. both royalties and business profits (services). If so, the OECD Model Commentary guidance seems useful, suggesting to make a breakdown or reasonable apportionment of the remuneration to the parts, except if one part is by far the principal purpose of the contract and the other of an ancillary and largely unimportant character so that the treatment of the principal part should be applied to the whole amount of the consideration.⁹¹

Part Three: Transfer pricing⁹²

Driven by the digitalisation of the economy, it is nowadays common in multinational enterprises (MNE) to gather big volumes of data from various operating entities around the globe, to analyse it and (to try) to leverage it through tool development activities, data analytics software or algorithms – e.g. with the aim of improving the product offering or overall productive capacities and business efficiency. Belgium has no specific legislation or guidance on the transfer pricing (TP) treatment of big data or data transactions. So, the general TP legislation, administrative guidance,⁹³ and the OECD Transfer Pricing Guidelines apply – although obviously new business models and big data can raise questions whether the existing framework still fits.

A first issue is to what extent data constitutes an “intangible” for TP purposes, i.e. something that is not a physical or financial asset and capable of being owned or controlled for use in commercial activities, and whose use or transfer would be compensated, had it occurred in a transaction between independent parties in comparable circumstances.⁹⁴ Accounting treatment and legal, contractual or other protection are not determinative for TP.⁹⁵ Although not unambiguous, especially for raw data, we would indeed as a rule

⁸⁸ E.g. treaties with Argentina, Brazil, Bulgaria, India, Morocco, Pakistan, Portugal, Rwanda, Tunisia, Vietnam.

⁸⁹ <https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2021-06/2107033E.pdf>.

⁹⁰ The ‘equipment clause’ has been deleted from the OECD MC since 1992.

⁹¹ Cf. art. 12, para. 11.6 OECD MC Commentary.

⁹² We thank our KPMG colleagues Yves de Groote and Robrecht Tits for their valuable input.

⁹³ Especially circular letter of 25 February 2020 (2020/C/35) by Belgian tax authorities (‘2020 TP Circular’).

⁹⁴ Cf. OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (January 2022), para. 6.6.

⁹⁵ *Ibid.*, para. 6.7 f.

characterise data for TP purposes as an intangible. In practice, third parties without access to data are often willing to pay a remuneration for the acquisition or use of someone else's data. The entity in which raw data arises – not seldom a mere by-product of business operations – will generally be the data owner/controller.

A second issue is whether the sharing of data by a company that has control over it with other group members requires remuneration. The value of raw data may be rather limited, as it will often be only the centralisation and compilation of many datasets from different regions, divisions, etc. that renders the data representative and valuable. Also, the entity in which raw data arise will in isolation often not have the possibilities to use the data for analysis, as it lacks access to the data of other group members and may not have the necessary data analytics expertise. In our view, it can be generally assumed that a third party would be willing to share raw data from its operations without upfront remuneration, provided that it may expect that the use of such data will result in the creation of operating synergies/benefits or the potential of developing new goods or services (i.e. additional value creation). If so, the various group companies will in return for the data sharing be able to benefit from tools being developed, e.g. at central level. Access to the licensing of such tools can be deemed crucial for the further growth of the respective group companies, and for the creation of process efficiencies. The licensing fee charged by the central entity collecting all data and developing the tools should not include a fee for data access, but rather reflect (only) the added value delivered by the data-centralising entity and tool developer. In terms of comparable transactions between third parties, we are aware of market situations where platforms are built on the idea of sharing existing data between unrelated players. If each participant using the shared data also contributes by sharing its own data, no need for compensation arises. In our view, such comparable uncontrolled transaction corroborates the fact that no upfront remuneration needs to be paid for data sharing, provided there is an expected benefit, i.e. be it access to data of other participants, be it another benefit.

A third issue is the appropriate TP treatment of the development and application of data analytics tools for creating value from, and the subsequent monetising of, big data. These tools are generally intangibles too. From a TP perspective, various forms of process are conceivable, ranging from a model with a central developer to a fully decentralised one with several group entities involved. In a TP analysis it is key to determine the MNE entity or entities that are entitled to share in the returns derived by the group from exploiting an intangible and therefore should bear also the costs, investments and other burdens.⁹⁶ The intangible's legal ownership (i.e. legal rights and contractual arrangements) forms the starting point of the analysis.⁹⁷ However, as prices and conditions of (related-party) contracts may not be in line with the arm's length principle, it is not decisive where returns legally or contractually accrue but rather which entity or entities are the economic owner(-s) of the intangible. This is determined by which entity or entities have concretely performed functions, used assets, or have assumed risks in relation to the development, enhancement, maintenance, protection, and exploitation (DEMPE) of the intangible. If a model with a central developer is chosen, this entity would perform all or at least most of the DEMPE functions. The central developer would therefore be the economic owner of the developed intangibles who is entitled to their proceeds (or must sustain losses from unsuccessful

⁹⁶ *Ibid.*, para. 6.32.

⁹⁷ If no legal owner can be identified under applicable law or governing contracts, the entity that based on facts and circumstances controls decisions concerning the exploitation of the intangible and has the practical capacity to restrict others from using the intangible, will be considered its legal owner (*ibid.*, para. 6.40).

development). Other group entities using the developed tools would have to remunerate the developer, e.g. via licensing arrangement. If regional entities provide support (e.g. IT or R&D) to the central developer, these entities would generally be entitled to a “routine remuneration” (cost plus). If in contrast a decentralised model for the development of analytics tools is chosen, this could take place via a ‘cost contribution arrangement’ (CCA) (also referred to as ‘cost sharing agreement’). A CCA is a contractual arrangement among business enterprises to share the contributions and risks involved in the joint development, production or obtaining of (*in casu*) intangibles, with the understanding that the intangibles are expected to create benefits for the individual businesses of each of the participants. Not required for a CCA is the combination of participants’ operations to jointly exploit the intangibles or to share the revenues, as participants can exploit their interests also in their individual businesses. Crucial from a TP perspective is that each participant’s share of overall contributions is consistent with its share of overall expected benefits.⁹⁸ Each participant would have a contractual entitlement in the developed intangible (often for a specific geographic location or application). Although one CCA participant may hold the legal ownership title to developed intangibles, there is no need for payment of royalties by the other participants (except if someone’s contribution was not proportionate to the expected benefits). As no post-development license arrangements are necessary, this can TP-wise bring simplification. However, a CCA can also add complexity, i.e. where changes in CCA membership occur, potentially requiring “buy-in” and “buy-out” payments.⁹⁹

Part Four: Special regimes

4.1. General overview

Belgium is an innovation-friendly location with a legal and tax environment suitable for research & development (R&D) activities. Data-driven business, and the development and sale of goods and services that are enabled or enhanced by big data, may benefit.

4.2. Digital Services Tax

So far, Belgium has not introduced a digital services tax (DST). Inspired by the European Commission’s DST proposal,¹⁰⁰ members of Belgian parliament made a legislative proposal¹⁰¹ for the temporary introduction of a DST in 2019, which was also discussed in the Chamber’s Commission of Finance. Pursuant to the proposal, large MNEs¹⁰² would be liable to an (indirect) tax of 3% on revenue from (i) advertising targeted to users of a digital interface, (ii) operating a digital platform allowing interactions between users and possibly

⁹⁸ *Ibid.*, para. 8.3 and 8.5.

⁹⁹ *Ibid.*, para. 8.44 and 8.46.

¹⁰⁰ Directive proposal of 21 March 2018, COM(2018) 148 final.

¹⁰¹ Cf. DOC 55, 0096/001 – 006; <https://www.lachambre.be/FLWB/PDF/55/0096/55K0096001.pdf>, 10 July 2019, (previously DOC 54, 3485/001).

¹⁰² 750mn Euro worldwide revenue, and DST-taxable income in Belgium of 5mn Euro p.a.

facilitating the supply of goods or services among users, and (iii) the transmission of user data generated from users' activities on digital interfaces.

In October 2020, a new Federal Government has taken office and announced that it primarily supports international initiatives (OECD and/or EU) for digital taxation. If these were to prove unsuccessful, however, a Belgian DST would be introduced from 2023.¹⁰³

4.3. Incentives

4.3.1. Innovation income deduction

With the innovation income deduction ('IID')¹⁰⁴ in articles 205/1 ff. ITC, effective 1 July 2016, Belgium stimulates the development and exploitation of patents, software, and R&D in general.¹⁰⁵ IID allows companies to deduct 85% of their 'net innovation income'¹⁰⁶ from the corporate tax base. With a statutory tax rate of 25% (as of 2020), an effective corporate tax burden of $(15\% * 25\% =) 3,75\%$ results.

IID is available for income from qualifying intellectual property rights (IPR) derived through R&D,¹⁰⁷ which may include for data-driven businesses in a broad sense inter alia:

- Copyrighted software, including derivative creations or the adaptation of existing software resulting from an R&D project or program (article 275/3 § 3 ITC);¹⁰⁸
- Data and market exclusivity,¹⁰⁹ orphan drugs and breeders' rights;
- Patents and supplementary protection certificates.

Income qualifying for IID comprises not only royalties and license fees but also IPR income embedded in the sales price of goods and services, process innovation based on IPR (reflecting third-party price for IPR access), capital gains (if reinvested), and damages from IPR infringement.

4.3.2. Further R&D incentives

Belgium allows an investment deduction (ID) on top of normal depreciation for qualifying fixed assets (one-off or spread). For data-driven business in a broad sense, for instance

¹⁰³ <https://www.mytaxcompass.be/articles/posts/2020/october/government-de-croo-has-taken-office-what-is-in-store-on-taxation/>.

¹⁰⁴ Cf. A. Delanoy, R. Tits and S. Wauters, Belgian innovation income deduction – Recent Ruling Practice Experiences and Update on Documentation Requirements, *International Transfer Pricing Journal (ITPJ)*, IBFD 2020, No. 2 (published online: 11 February 2020).

¹⁰⁵ Law of 9 February 2017, Belgian Gazette of 20 February 2017. The previous Belgian IP box ('Patent Income Deduction' or PID) had not been compliant with the OECD's modified nexus approach.

¹⁰⁶ Cf. art. 205/1, § 2, 3° -5° ITC.

¹⁰⁷ The *de facto* R&D reference document in Belgium and internationally is the OECD, *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development*, The Measurement of Scientific, Technological and Innovation Activities, <https://doi.org/10.1787/9789264239012-en> ('Frascati Manual').

¹⁰⁸ For R&D in the field of software development, see Frascati Manual, para. 2.68 ff. and examples in para. 2.71 (inter alia creation of new or more efficient algorithms based on new techniques).

¹⁰⁹ Period from initial medicine authorisation during which the marketing-authorisation holder benefits from the exclusive rights to the results of preclinical tests and clinical trials on the medicine.

patents and fixed assets, serving R&D on new products and future-proof technologies with low or minimised harmful environment impact can be relevant (article 69, § 1 ITC). Instead of ID, the taxpayer may opt for an R&D refundable tax credit (article 289quater-novies and 292bis ITC).

To promote qualifying R&D and avoid ‘brain drain’, article 275/3 ITC under certain circumstances allows that employers not remit 80% of the wage tax withheld on researchers’ salary to the Belgian treasury, thus creating a cash grant (taxable for employer, no effect on researcher).

4.3.3. Lump-sum foreign tax credit

As explained in section 1.3.3, Belgian residents who receive foreign-source movable income (article 17, § 1, 3° or 5° ITC), e.g. from exploitation of a database right, may be entitled to a lump-sum foreign tax credit.¹¹⁰ No per-country limitation applies and tax on other income can also be neutralised. In case of excess, no refund or carry-over is available.

As the lump-sum tax credit is fixed at 15/85 of the net movable income received, the tax credit can be considerably higher than the actual foreign tax imposed.¹¹¹ Example: With foreign withholding tax of 5% on a royalty of 100, the tax credit is $(100 - 5) \times 15 / 85$, i.e. approx. 16,76. The amount of the tax credit needs to be added to the taxable base, i.e. for a gross royalty of 100 the taxable base in the example is $95 + 16,76 = 111,76$.

If movable income benefits from IID (or PID), the tax credit is limited by the actual foreign tax rate (maximum: 15%) and Belgian tax due on the income.

4.4. Barter treatment

As data-driven business cannot operate without data, a company without in-house data needs to acquire data. In a B2B context, this will often occur against payment, but two enterprises may also ‘swap’ data (or data feeds), if each party holds material interesting for the other (data barter exchange). In the latter case, as the value of data is highly context dependent, valuation may be difficult – unless a transferor also offers the same supply in paid transactions.¹¹²

If in the framework of paid remote maintenance services for machines or appliances the service recipient (business or consumer) allows the service supplier to collect real-time performance data from the machine or appliance, this data has direct relevance for the maintenance services for that very client. However, the service supplier uses the data, together with the data from other service recipients, to constantly improve its maintenance services via big data analytics (e.g. failure prediction), which will benefit current and future customers. In this context, we would not consider the provision of data by service recipients as an independent data transaction and therefore not treat the relationship between service supplier and customer as a barter exchange (for data sharing without upfront remuneration within an MNE, see also Part Three: Transfer Pricing).

¹¹⁰ Belgian treaties traditionally provide for foreign tax credit *under the rules and conditions laid down in Belgian domestic law*; cf. art. 22(2)(g) BSM.

¹¹¹ Conversely, the tax credit is lower than foreign tax if the foreign tax rate exceeds 15%.

¹¹² OECD (2020), *ibid.*, at 32.

Usually in a B2C context, users of free internet services (e.g. social media, search engines) consent to the collection of personal data and possibly user-generated content (blog posts, images, videos). Whilst there is no payment, sacrificing privacy has some semblance of remuneration.¹¹³ In the EU, there is reluctance to treat the provision of personal data as “counter-performance”.¹¹⁴ In Belgian tax legislation and practice, we have not identified instances where the active or passive provision of data by users was characterised as counter-performance or otherwise treated as a taxable transaction. If one did that, valuation issues would also arise here. Although no one wants their data in the public sphere, raw data of one single person generally seems of low value from a big data viewpoint.¹¹⁵ Tracing and valuing every single user contribution would also be a challenge (how many cookies on websites are accepted in just one hour of internet surfing?) – and the speed of life also suggests quick obsolescence of data.

Part Five: Indirect tax¹¹⁶

Belgian indirect taxation of data transactions is governed by the (EU-harmonised) VAT Code (VATC) and the VAT Royal Decrees.¹¹⁷ A taxable person (article 4 VATC) is any person (individual or company) who carries out supplies of goods or services regularly and independently in the framework of a (main or occasional) economic activity regardless of a profit motive. We would not consider private individuals who use free internet services and allow collection of their (personal) data, as taxable persons.¹¹⁸ The disclosure seems no supply in a synallagmatic contract but rather a collateral damage, being part of administering one's private property. Among taxable persons, “consideration” for a supply can be non-monetary (barter exchange). The taxable amount includes everything (to be) obtained in return for the supply from the other party or a third party (article 26 VATC), which in barter situations includes the open market value of services received (article 33 VATC).

As a rule, data transactions constitute supplies of services, not of goods. B2B services are generally supplied where the recipient is established (article 21, § 2 VATC), which in a cross-border situation results in a reverse-charge mechanism. An important exception concerns services sufficiently linked with immovable property, which are taxed where the immovable property is located (B2B and B2C). This requires a case-by-case analysis. Data centre services recently did not qualify,¹¹⁹ but what about an energy data feed from a wind

¹¹³ Therefore, French authors F. Bloch / G. Demange, *Taxation and Privacy Protection on Internet Platforms*, <https://halshs.archives-ouvertes.fr/halshs-01381044/document>, at 2, see a barter where the platform delivers valuable services in exchange for (personal) data.

¹¹⁴ See the Introduction re final wording of DSD.

¹¹⁵ In that vein, M. Arteel, *De Vaststelling van een vaste inrichting bij e-commerce activiteiten*, at 116. J. Becker and J. Englisch, “Taxing Where Value Is Created: What’s ‘User Involvement’ Got to Do with It?”, *Intertax*, Vol. 47, Issue 2, 2019, p. 161 ff. do not see users as co-producers of value in a tax-relevant way.

¹¹⁶ We thank our KPMG colleagues Jeroen Gobbin and Sofie Vandermarliere for their valuable input.

¹¹⁷ For a DST proposal, see section 4.2. We also note that Belgian tax on advertisement activities (art. 188 Code of Miscellaneous Taxes and Duties) does not cover internet advertising.

¹¹⁸ Different conclusion for ‘influencers’; cf. Parliamentary question nr. 146 of Mr. Piedboeuf, 14 January 2020, *Vr. en Antw.*, Kamer, 55, nr. 014, p.170-172.

¹¹⁹ CJEU, judgment of 2 July 2020, C-215/19, A Oy.

turbine? The remote performance via internet as such does not exclude an immovable property link. If several place of supply rules are concurrent (e.g. immovable property link vs. electronically supplied services; see below), ensuring taxation at the presumed place of service consumption should ultimately be determinative.

Electronically supplied services ('ESS') are taxable in the country of the customer (B2B and B2C). Pursuant to article 7(1) of the Council Implementing Regulation (EU) 282/2011 of 15 March 2011, ESS shall include services which are delivered over the internet or an electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention, and impossible to ensure in the absence of information technology. Article 7(2), (3) of said Regulation contains a positive list (e.g. supply of digitised products generally) and a negative list (e.g. CD-ROMs; services of professionals such as lawyers and financial consultants who advise clients by e-mail; offline data warehousing services).¹²⁰ Often, data transactions will constitute ESS; e.g. weblogs/website statistics, real-time stock market data, online news, traffic information, weather reports, the provision of advertising space including banner ads on a website.

The VAT rate and potential exemptions depend on the country where the place of supply is located. Generally, ESS fall under the standard VAT rate. Exceptionally, a reduced rate (e.g. e-books 6% in Belgium) or an exemption applies. E.g. a hospital's carrying out of clinical trials for a pharmaceutical company and selling its data, is subject to VAT; a university's using data for lectures to students will be exempt (exemption for teaching material).

Part Six: Tax accounting

Belgian tax law follows accounting law unless tax law specifically deviates. Neither accounting nor tax law contain special rules for data-driven business.

Part Seven: Movable withholding tax regime practicable for data transactions?

If movable income arises, the law requires a Belgian debtor (including private individuals) to duly perform withholding tax (WHT) compliance – even if a tax treaty excludes Belgian taxation (nil return). The income debtor may encounter difficulties ascertaining whether the other party indeed holds relevant IP-protected rights. Moreover, multitude and speed of data transactions as well as valuation uncertainties sow doubt whether the existing WHT compliance framework – rather tailored to infrequent transactions – is adequate. Belgian

¹²⁰ OECD (14 October 2020), Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint, at 24 in footnote 14, stated that its definition of Automated Digital Services (ADS) drew upon but was different from the definition of ESS in EU VAT law (to avoid conflation and questions on the relevance of associated EU case law). By now, Pillar One of the BEPS 2.0 project no longer relies on the concept of ADS (cf. OECD <https://www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.pdf>).

tax authorities in practice ease the WHT compliance burden by waiving it for intra-Belgian transactions ('unconditional exemption')¹²¹ – but data transactions are often cross-border.

Reference case studies

Reference case study 1: Data brokers / information resellers			
Income of:	Domestic law		Tax treaties
	Income characterisation	Belgian source/nexus	
Website Co	Professional income	PE principle Possibly also article 228, § 3 ITC ("catch-all clause")	Business profits
Broker Co	Movable income* article 17, § 1, 3° ITC (trade secret; also, database right if Broker Co is established in EU)	If customer (debtor of income) is either a Belgian resident or non-resident whose Belgian PE bears cost	Business profits Rather no royalties (no "information concerning commercial experience", as no <i>own</i> experience)
Reference case study 2: Data feeds			
Animal Data Co	Movable income* article 17, § 1, 5° ITC (copyright)	If Information Site Co (debtor of income) is either a Belgian resident or a non-resident whose Belgian PE bears cost	Royalties

* Except for withholding tax purposes, movable income is generally re-characterized in professional income if the underlying assets are used for the income recipient's professional activity.

¹²¹ Cf. P. Smet, Handboek Roerende Voorheffing (2003), marginal note 1216, at 467.

Reference case study 1: Data brokers / information resellers

<i>Income of:</i>	<i>Domestic law</i>		<i>Tax treaties</i>
	<i>Income characterisation</i>	<i>Belgian source/nexus</i>	
Service Co (after-sales services)	Professional income Rather no separate movable income (possibly copyright for software and equipment control; but adjustments ancillary to service supply)	PE principle (sensors rather no PE) Possibly also article 228, § 3 ITC ('catch-all clause')	Business profits For OECD MC-like treaties rather no royalties ("end-user license" for copyright; moreover, ancillary) For UN MC-like treaties possibly (elements of) royalties and technical services

Reference case study 4: Analytics-based consultancies

Consultant Co (consulting services)	Professional income	PE principle Possibly also article 228, § 3 ITC ('catch-all clause')	Business profits
Consultant Co (granting database access)	Movable income* article 17, § 1, 3° ITC (trade secret; also, database right if Consultant Co is established in EU)	If customer (debtor of income) is either a Belgian resident or non-resident whose Belgian PE bears cost	Business profits Rather no royalties (third-party researchers use only database, not the Consultant Co's know-how)

* Except for withholding tax purposes, movable income is generally re-characterized in professional income if the underlying assets are used for the income recipient's professional activity.

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Summary and conclusions

The following branch report aims at establishing the main legal, regulatory and jurisprudential framework that needs to be analyzed in order to define the tax character of “big data” in Brazil and the controversies regarding its direct and indirect taxation on domestic and international transactions.

Once defined that collecting, aggregating, structuring, and analyzing large information sets, in order to generate value, will be considered under domestic tax legislation and jurisprudence as a service provision activity, the main issue, regarding direct taxation on cross border transactions, arises from its tax treatment as a technical (specialized) service, as detailed in the report. Brazilian tax authorities’ unique approach towards the interpretation and application of tax treaties’ articles, results in different taxation scenarios depending on how the specific service income is treated.

Considering the vast majority of tax treaties concluded by Brazil, big data transactions will normally be taxed according to article 12. Only residually, income will be treated under article 7, resulting in a non-taxation (no withholding tax) scenario. In practice, foreign enterprise’ business profit related to services provision will normally be subject to withholding taxation in Brazil.

Technical services will also be subject to the Contribution for Intervention in the Economic Domain (CIDE), which is levied on the remittance of resources, as payment for royalties and technical services taken. Not just the incidence of withholding tax, but also CIDE is questionable, especially considering the non-transference of technology in big data operations. The Superior Court of Justice has already ruled in several technical services provision cases, that they should not be levied in such circumstances.

From an indirect perspective, the main controversy relates to the concept of result, for purposes of defining if the service provision should be subject to the services tax (ISS), either in exportations or importations, and social contributions on importation (PIS and COFINS – importation). The main question mark is whether the “result” of the service is verified in the Brazilian territory.

There are two opposite perspectives: i) The utility theory according to which the result is where it is possible to identify the fruition of the service, and ii) the completion theory, which states that the result of the service is at the place where it is consummated, regardless of the place where the beneficiary and utility of the service is taken.

Considering cross border operations, should there be an importation of “big data” services, depending on the mentioned controversial analysis, the operation will be subject

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to ISS, PIS and COFINS on importation, withholding tax and CIDE taxation. Over the foreign exchange operation, it will also be levied a federal tax on financial operations (IOF). In case of exportations, as there is no remittance made abroad (CIDE taxable basis) and no indirect taxation (immune), the revenue will just be subject to Corporate Income Tax (CIT) and Social Contribution Tax (SCT), which has an almost identical tax basis as the CIT.

In purely domestic operations, big data transactions will be subject to ISS, PIS and COFINS (from an indirect tax perspective), CIT and SCT (from a direct perspective), considering the specific tax rates and taxable basis to be further detailed in this report.

Introduction: Legal background³

The purpose of this section is to present an overview of the data protection legislation in Brazil, focusing on the recent General Data Protection Law (Law 13,709/2018, the so-called “LGPD”). Regarding other aspects of private law relating to data protection, such as copyrights, *sui generis* rights, trade law, contract law, tort law and so on, this branch report refers to the general description of commercial law principles described in the general report.

As stated before, Brazil has an incipient data protection environment centered in the newly effective LGPD, which came into force after a two-year *vacatio legis* and several legislative turnarounds.

Although LGPD is the first Brazilian law focused on personal data protection, there are other pieces of legislation addressing different aspects of data protection and privacy, including honor, private life, intimacy, image and secrecy of correspondence, bank operations and communications. Such laws include the Federal Constitution, the Civil Code (Law 10,406/2002), the Internet Act (Law 12,965/2014), the Banking Secrecy Law (Supplementary Law 105/2001), and the Consumer Protection and Defense Code (Law 8,078/1990).

As a general law, LGPD has an extraterritorial nature and is, therefore, applicable to any individual or legal entity, governed by public or private law, that processes personal data. LGPD will be applicable provided that (i) the processing activity occurs in Brazil; (ii) the processing activity purports to offer or supply, goods or services, or the processing thereof related to data subjects in Brazil; or (iii) the personal data has been collected in Brazil.

Big data is an exorbitant amount of information analyzed as a single unit through a set of technologies, to identify patterns that, in principle, would not be perceived in smaller fragments of data. The vast amounts of information processed in these operations may well include personal data (*i.e.* data that may be related to specific individuals), personal identifiable data (*i.e.* data that, when combined with other pieces of information, may be related to specific individuals), and non-personal data.

LGPD's rules and principles are applicable to the extent that the collection, generation, storage and processing of data occurs in Brazil, or concerns personal data from Brazilian individuals.

Along general lines, LGPD's principles can be divided in three main categories: (i) those related to the processing operations; (ii) those related to data subjects' rights and safeguards; and (iii) those related to data security, as described below:

³ This section was written by Maria Eugênia Geve de Moraes Lacerda, an attorney specialized in data protection law in the law firm Tozzini Freire Teixeira e Silva Advogados in São Paulo.

(i) Principles related to data processing operations:

Purpose: data subject must be informed of the purposes of personal data processing, which must be legitimate, specific, and explicit. Under no circumstances, should the processing be incompatible with these purposes.

Suitability: compatibility of the processing activity with the purposes informed to the data subject, in accordance with the context of the processing.

Necessity: limitation of the processing to the minimum necessary to achieve its purposes, covering data that is relevant, proportional, and non-excessive in relation to the purposes of the data processing.

Non-Discrimination: impossibility of carrying out the processing for unlawful, abusive, or discriminatory purposes.

(ii) Principles related to data subjects' rights and safeguards:

Transparency: guarantee of clear, precise, and easily accessible information about the processing and the processing agents. Commercial and industrial secrecy may be excepted from the general rule of transparency.

Free-Access: guarantee of facilitated and free of charge consultation about the form and duration of the processing, as well as about the integrity of the data subjects' personal data.

Quality of Data: guarantee of the data accuracy, clarity, relevance and update, in accordance with the necessity and purpose of the processing activity.

(iii) Principles related to data security:

Security: use of technical and administrative measures to protect personal data from unauthorized accesses and accidental or unlawful situations of destruction, loss, alteration, communication, or dissemination.

Prevention: adoption of measures to prevent damages due to the personal data processing.

Accountability: capability to demonstrate the adoption of efficient and effective measures to comply with the personal data protection rules.

These principles are applicable to a greater or lesser extent depending on the purpose of the big data processing activities.

Part One: Basic principles: Character, source and nexus

1.1. General overview

First of all, it is important to mention that Brazil is a three-level federation (Union, states and municipalities), in which each level has its own and exclusive tax jurisdiction. In this sense, consumption is taxed on all three levels, but each one is focused on a different aspect. The Union has the power to tax industrialized goods—a federal excise tax, provided for in article 153, item IV of the Brazilian Constitution. The states levy tax on the circulation of goods and transportation and communication services—a state sales tax, as stated in article 155, item II of the Brazilian Constitution. In addition, the municipalities tax the provision of certain services, as detailed in a list brought by the national service tax legislation (Complementary Law N° 116/2003), according to article 156, item III of the Brazilian Constitution.

Furthermore, regarding consumption taxes, Brazil still has another peculiarity. The

supply of goods or services is also taxed, at federal level, by the social contribution for social security financing – COFINS and the employees' profit participation program – PIS. Brazil levies both taxes on the legal entity gross revenue and all the other revenues (such as financial revenue) accrued by the legal entity, independently of its denomination or accounting recognition. The contributions are also levied on the importation of services, whenever the result is verified in Brazil. Both taxes are provided for in article 195, item I, letter "b" of the Brazilian Constitution and disciplined in Laws 9,718/1998, 10,637/2002 and 10,833/2003. Regarding importation there is a specific regulation under article 195, item IV of the Brazilian Constitution and Law 10.865/2004.

Therefore, as it is possible to note, Brazil does not have a national or unified VAT, but several different taxes that are levied over goods and services. The consumption taxes are imposed on both domestic and international operations of importation. Exportations are immune, according to the Federal Constitution (articles 153, §3º, III; 155, §2º, X; 156, §3º, II; 149, §2º, I) and are therefore exempt of indirect taxes.

As to the topic of direct taxes, Brazilian resident companies are subject to corporate income tax (CIT) on their worldwide income. In addition to CIT, the Federal Union imposes Social Contribution Tax (SCT) on an almost identical tax basis. Companies are resident in Brazil if incorporated under the Brazilian laws and managed in Brazil. Different from other countries, Brazil imposes a withholding tax (WHT) on all the payments, credits, deliveries or remittances abroad, including on all the payments related to the importation of services.

In addition, as prescribed by Law 10,168/2001, a Contribution for Intervention in the Economic Domain (CIDE) is imposed on royalties and on technical and administrative assistance or similar services payments. It is worth pointing out that CIDE is a tax payable by the Brazilian taxpayer on international remittance of resources, due to the payment for the technical service taken. It is not, therefore, a withholding tax.

Brazilian legislation has specific provisions about the taxation of data only regarding ISS, the municipal tax on provision of services. Activities of data processing, storage, hosting, analysis, examination, research, collection and supply of data and information of any nature, including registration and similar, and also technical support in computer science, including installation, configuration and maintenance of computer programs and databases, are stated in the national service tax list mentioned above⁴.

Although there might be some controversies regarding the taxation of all kinds of data transactions as services,⁵ "big data"⁶ as the congregate functions to involve collecting, aggregating, structuring, and analyzing large information sets, in order to generate value,

⁴ Complementary Law No 116/2003, items 1.06, 1.07 and 17.01.

⁵ Mostly, if there is just the obligation of supplying data without any further analysis or value creation activity, which could be considered as an "obligation of giving" not an "obligation of doing" and would imply in other analysis as to whether ICMS should be levied and all the criteria for it. RANGEL, Luís Felipe Vieira; BATISTA, Diego Alves Amaral. (2018). Aspectos fiscais aplicáveis à cessão e disponibilização de dados. In MONTEIRO, Alexandre Luiz Moraes do Rêgo; SILVEIRA, Ricardo Maitto da; FARIA, Renato Vilela. *Tributação da Economia Digital*. (p. 760). São Paulo, Brazil: Saraiva.

⁶ According to the OECD: "the most frequently used definitions of Big Data usually refer to (1) the large dimension of datasets; and (2) the need to use large scale computing power and non-standard software and methods to extract value from the data in a reasonable amount of time. According to De Mauro et al (2016), "Big Data is the information asset characterized by such a high volume, velocity and variety to require specific technology and analytical methods for its transformation into value." OECD. (2016). *Big Data: bringing competition policy to the digital era*. Retrieved from [https://one.oecd.org/document/DAF/COMP\(2016\)14/en/pdf](https://one.oecd.org/document/DAF/COMP(2016)14/en/pdf).

and will be, in principle, characterized under domestic legislation framework as a service provision.

Therefore, under domestic legislation the provision of “big data” services will be subject to ISS, PIS and COFINS (from an indirect tax perspective), CIT and SCT (from a direct perspective), considering the specific tax rates and taxable basis which will be further detailed in this report.

Considering cross border operations, should there be an importation of big data services, the operation will be subject to ISS, PIS, COFINS, WHT and CIDE taxation (if treated as a technical service). It will also be levied, over the foreign exchange operation, a federal tax on financial operations (IOF). In case of exportation of big data services, as there is no remittance made abroad (CIDE taxable basis) and no indirect taxation (immune), the revenue will just be subject to CIT and CST.

1.2. Character

Considering the fact that the present report is focused on data driven business, specifically transfer of raw data, transfer of or access to aggregate data and big data analytics, transactions with software, cloud computing or any other digital good or service that may imply, as well, data transfer in a broad sense, will not be analyzed.

The relevant factor to determine the tax nature of a data transaction in Brazil and, in fact, the tax nature of any transaction, is, first, the existence of constitutional authorization as to the possibility of taxation of such fact and, second, a law in force specifically related to all the taxable immaterialities, by the competent authority. In addition, only transactions that indicate ability to pay will be taxed. Brazilian Federal Constitution is oriented by several principles, which regarding taxes, should always imply strict legality, ability to pay and tax jurisdiction.

There is no specific legislation which determines the tax character of data transactions. Nonetheless, the tax framework utilized under Brazilian legislation relies on the constitutional and legal definition of services combined with the jurisprudence already firm by the Federal Supreme Court.

In several judicial cases analyzed by the Court, it has been determined that in order to classify an operation as the provision of services, there must be an “obligation of doing” instead of “an obligation of giving”.⁷ Thus, operations that require the contractor to deliver a utility (and not a good) to a third party, via specific intellectual effort, should be considered as service provision. According to civil law, only operations that involve a direct human effort, with a set of material and immaterial activities, rendered to a third party and with the purpose of generating profit,⁸ should be considered as service provision.

Nonetheless, in recent court cases, this concept was broadened, in order to determine that in operations that include not just an obligation of doing, but also an obligation of giving, there could also be a tax character of services, as long as the obligation of doing prevails over the other one.⁹ In this sense, the Federal Supreme Court Minister Gilmar

⁷ The most emblematic case is the Federal Supreme Court Appeal – Recurso Extraordinário 116.121-3/SP, of 2001.

⁸ Law 10.406, in force since 1 October 2002, art. 594.

⁹ Federal Supreme Court Appeal – Recurso Extraordinário 592.905/SC, of 2009.

Mendes recently detailed the concept of service for ISS purposes on a ruling on the taxation of franchise agreements:¹⁰

The franchise contract includes a service provision that may be subject to municipal tax. There is, in this contractual relationship, an undeniable application of human effort aimed at generating utility in favor of another (the franchisee). The contractual bond, in this case, is not limited to a mere obligation to give, nor to the mere obligation to do.

In view of these premises, transactions with data, which involve the effort of collecting, aggregating, structuring, and analyzing large information sets, in order to generate value, should be qualified as the provision of services, which includes, from a Brazilian perspective, the licensing of use of intangible assets and leasing. Such standing reflects recent manifestations of the Federal Supreme Court,¹¹ according to which a service only exists in the event that a legal agreement for performing an activity (or delivering a utility) in exchange for a remuneration exists. If there is only the obligation of giving something, (i.e. a rental obligation in which a party gives a good to be utilized by the other in exchange of a remuneration), this is not enough to characterize a service for ISS purposes.

As a result, under Brazilian law and court rulings, it is not possible to qualify data transactions as sale or exchange of property. Data is not a kind of property that can be sold; data transactions imply the performing of an activity, and not the mere obligation of handing something over. The suitable legal qualification, therefore, is the provision of services and such conclusion applies regardless of whether the object of the transaction involves the transfer of raw, structured or aggregated data, as long as there is an activity being performed with the data itself, which could lead to value creation.

As mentioned above, the qualification of such transactions as services is subject to ISS, a municipal tax. From a federal perspective, taxation will involve the collection of PIS and COFINS and if the service is characterized as “specialized”, in addition to the collection of these contributions, there will also be a withholding tax obligation, which is only a partial anticipation of the CIT and SCT to be paid by the service provider in domestic operations.

At an international level, considering cross border operations, depending on the nature of the service (general or technical/specialized), and the dispositions of the tax treaty, the operation will also be subject to CIDE and withholding tax, including the referred indirect taxes.

According to the Brazilian Internal Revenue Service (Normative Instruction 1,455/2014, in its article 17, item II, letter “a”), a service is considered “technical” when “the execution of [the] service depends on specialized technical knowledge or that involves administrative assistance or consulting, performed by independent professionals or with employment relationship or, still, resulting from automated structures with clear technological content”.

In the same Normative Instruction (article 17, item II, letter “b”) there is the definition of technical and administrative assistance, as: “the permanent assistance rendered by the assignor of a process or secret formula to the assignee, via specialized services, drawings, studies, instructions and similar services, which make feasible the effective utilization of the process or formula assigned”.

¹⁰ Federal Supreme Court Appeal – Recurso Extraordinário 603.136, of 2020. The decision rendered in Direct Unconstitutionality Action (ADIN) No. 1945 reinforces this position by defining the applicability of ISS on software use licenses, including on cloud computing. Federal Supreme Court Appeal, ADIN 1945/MT, of 2021.

¹¹ Federal Supreme Court Appeal – Recursos Extraordinários 603.136, of 2020 and 784.439, of 2020.

As a residual tax characterization, any service provision, which does not fulfil the above criteria, should be considered as a general service and not a technical or specialized one. In practice only a few services are considered as general ones, being even more rare following the rulings and the Federal Revenue decisions which consider a service as such. For instance, services of warehousing, freight, and cargo intermediation, necessary to the delivery of a certain product by the importer are considered as a general service, as well as a few others.¹²

Considering the definitions foreseen in the Brazilian domestic legislation, big data transactions, which normally involve the collecting, aggregating, structuring, and analyzing of large information sets, in order to generate value, will basically have the tax character of a technical service.

1.3. Source

Considering the characterization of big data transactions as services provision under the current Brazilian tax framework, and the lack of specific legislation, the determination of the income source and consequently the nexus for data transactions taxation, must follow the general rules applied to any other type of service provision.

According to Brazilian tax law, a nexus is established whenever a payment arises or has its source in Brazil. Therefore, a jurisdictional claim based on source jurisdiction is imposed whenever a revenue payment, credit, delivery or remittance by a Brazilian source is made to a non-resident in Brazil.

As data transactions are considered as a provision of service under domestic legislation, a withholding tax is imposed whenever a payment is made to another country service provider in order to fulfil a data transaction agreement. In case of countries with which Brazil has tax treaties in force, there are some controversies regarding the imposition of withholding tax, but normally it will be subject to taxation if the service is considered as a technical service and there is a specific provision in the tax treaty (to be further analyzed in the specific section below).

The general withholding tax rate for technical services and similar payments to non-residents is 15%, after the introduction of CIDE in the Brazilian tax system (Law 10,168/2000, article 2-A), unless the rate is reduced under a tax treaty. The rate is 25% if the beneficiary is resident in a tax haven (Decree 9.580 of 2018, articles 741 and 744) or the service is considered as a general service (not technical or specialized)¹³ and there is no tax treaty in place.

1.4. Nexus

There is no specific nexus rule for data transactions, nonetheless it is important to highlight that not only source jurisdiction is utilized to determine Brazilian jurisdiction to tax. Based on residence jurisdiction, Brazilian residents are subject to taxation on their worldwide income. Therefore, all the income earned inside, or outside Brazilian territory is subject to taxation in Brazil (Law 9,249/1995, article 25).

¹² Rulings – Soluções de Consulta 189 of 2005 and Solução de Consulta 401 of 2009.

¹³ Law 9.779/1999, art. 7.

Brazilian tax legislation is not as detailed for companies as it is for individuals in establishing the requisites necessary to determine residence. The concept of “domicile” rather than “residence” is utilized and there is not a defined criterion to determine when a legal person is considered to be domiciled in Brazil.

The general concept of corporate domicile is found in the Brazilian Civil Code, under which the domicile of a legal person is the place where its headquarters or main direction is located, or the special domicile indicated in the act of incorporation. The criterion normally utilized is the place of incorporation, as indicated in the act of constitution of the legal person registered in Brazil. There is not a material analysis of the place where, in practice, the management takes place, but the formal indication in the act of incorporation of the place where it is headquartered or directed.¹⁴

Part Two: Application of treaty principles

2.1. General overview

Considering the tax characterization of big data transactions as technical services, a set of analysis will need to be performed in order to apply the tax treaties concluded by Brazil, mainly because of specific provisions provided in Brazilian tax treaties, especially article 12 and, furthermore, the controversial interpretation of tax authorities.

Although the treaties for the avoidance of Double Taxation concluded by Brazil follow OECD Model Tax Convention (OECD MTC), Brazilian tax authorities have a particular approach towards the interpretation and application of its articles, resulting in different taxation depending on the article under which the specific service income is treated.

Starting with article 7 of the OECD MTC, it states that unless an enterprise of a contracting state has a permanent establishment (PE) situated in the other state, the business profits of that enterprise may not be taxed by that other state. Therefore, unless there is a PE in Brazil, should a Brazilian taxpayer remit or credit to another state a payment related to a service rendered by an enterprise, it should not be taxed in Brazil.¹⁵

However, this is not the interpretation of Brazilian tax authorities. There are several Internal Rulings¹⁶ stating that in transactions involving Brazil and some jurisdictions with which Brazil has concluded a tax treaty, the payments related to services provided, should only be taxed according to article 7 and, thus, not be subject to WHT, if no specific

¹⁴ UCKMAR, Victor; CORASANITI, Giuseppe; DI VIMERCATE, Paolo de´ Capitani; OLIVA, Caterina Corrado; GRECO, Marco Aurélio; ROCHA, Sergio André. *Manual de Direito Tributário Internacional*. São Paulo, Brazil: Dialética, 2012, pp. 282-283.

XAVIER, Alberto. (1999). O imposto de renda na fonte e os serviços internacionais – análise de um caso de equivocada interpretação dos arts. 7º e 21º dos tratados. *Revista Dialética de Direito Tributário*, n. 49, 10.

¹⁵ XAVIER, Alberto. “O imposto de renda na fonte e os serviços internacionais – análise de um caso de equivocada interpretação dos arts. 7º e 21º dos tratados”. *Revista Dialética de Direito Tributário*, nº 49. São Paulo: Dialética, outubro de 1999, p.10.

¹⁶ Interpretive Act (Ato Declaratório Interpretativo – ADI) number 5 of 2014; Rulings – Solução de Consulta 155 of 2016; Solução de Consulta 58 of 2018; Solução de Consulta 5 of 2017.

provision is applicable under article 12, article 14 and previously article 21¹⁷ (already overruled).

Article 12 deals with royalties' payment, and mostly know-how concepts, under which one of the parties agrees to transfer to the other his special knowledge and experience regarding a specific secret formula or item subject to a transfer of technology.

According to the OECD Commentaries on article 12 of the OECD MTC, it should not include payments that are solely made for the exclusive distribution rights of a service in a given territory, as they do not constitute royalties or the payment made in consideration for the use of, or the right to use an element of property included in the definition. Nonetheless, Brazilian Tax Authorities under different amendments to the Double Taxation Treaties, modified its concept to include technical and administrative services, therefore eliminating the restriction to not withhold taxes in accordance with article 7. Only a few agreements do not have such a provision or interpretation, specifically the ones with Austria, Finland, France, Japan and Sweden as already recognized by the Federal Revenue.¹⁸

Even if article 12 cannot be applied, which according to Brazilian tax authorities only requires a protocol to the tax treaty providing that technical services should receive the same tax treatment as royalties, not depending on any technology transference,¹⁹ article 7 is only applicable if the services are not treated as independent personal services, according to article 14.

Concerning withholding tax, then, there are three different possibilities: normally it is taxed according to article 12, with a general withholding tax rate of 15%, reduced under some tax treaties. Should there not be a specific provision under article 12, then article 14 is applicable. As article 14 does not establish a certain withholding tax rate to be applied, Brazilian domestic legislation will be applicable, resulting, usually, in the same 15% being levied. Only then, if none of the other two options is applicable, becomes article 7 effective, resulting in a non-taxation (no withholding tax) scenario. In practice, it normally results in the taxation of the foreign enterprise' business profit in Brazil, considering source jurisdiction.

2.2. Detailed comments

The dispute between taxpayers and the Federal Revenue regarding the withholding tax levied over services revenue paid to non-residents goes far back and it is even considered as one of the major issues, resulting in the termination of the double taxation treaty with Germany on 7 April 2005, with effect from 1 January 2006.²⁰

¹⁷ Before ADI 5 of 2004, ADI 1 of 2000 was the one applicable. According to it, the remittances and payments made to non-residents related to technical services or technical assistance, which did not involve the transference of technology, should be taxed according to domestic legislation (i.e. 25%) as they would be considered under art. 21 of tax treaties – other income. According to it, items of income not dealt with in the other arts. of the MTC shall only be taxable in the country of residence of the beneficiary.

¹⁸ Rulings – Soluções de Consulta COSIT 109 of 2016; Solução de Consulta 153 of 2015, Solução de Consulta 501 of 2017 and Solução de Consulta 65 of 2018.

¹⁹ Interpretative Act (Ato Declaratório Interpretativo – ADI) number 5 of 2014.

²⁰ OEPEN, Wolfgang. (2005). A Alemanha denuncia seu tratado de dupla tributação com o Brasil – razões e consequências da denúncia do tratado sob um ponto de vista alemão. *Revista de Direito Tributário Internacional*. y. 1, n. 1, 217-218.

In spite of the tax authorities' interpretation, which leaves the possibility of not levying withholding tax only to a few countries, the Superior Court of Justice has already recognized that article 7 of the tax treaty should be the one applicable, except if there is a transfer of technology (know-how) instead of just a service provision.²¹

The understanding of the Court has been ruled over a few cases and the following main arguments can be highlighted.

First, the characterization of technical services which do not involve the transference of technology under article 12, overrules even the concept of royalties according to Brazilian domestic legislation (article 22 of Law 4,506/1996, as the royalties itself is a remuneration for the use of a determined technology. The CIDE legislation also foresees the same basis (Law 10,168/2000, article 2).

If there is no technology being transferred which could lead to the characterization of the payment as royalties under article 12, the payments performed cannot be disregarded as the income of the foreign service provider, which according to article 7 should be taxed only in its country of residence, unless there is a permanent establishment in the other country.

A different approach, as suggested by the Federal Revenue, under which the payment is a simple remittance which cannot be considered as profit under article 7, would lead to its non-applicability whatsoever. The revenue paid to the foreign service supplier will normally be subject to further adjustments and calculations so that the profit can be accrued and is subject to taxation. Taxing the remittance prior to this adjustment, will lead to a gross taxation of the non resident income.

In a recent precedent, of December 2020,²² nonetheless, the Superior Court of Justice ruled that article 7 would only be applicable to revenues not considered under article 12 or article 14, and should there be no abuse in the application of tax treaties. In the specific case it was determined that the lower court should analyze whether the services are not configured as royalties or independent services, and only if not, then article 7 must be considered. There are still lack of definition regarding the necessity of technology transference to be considered under article 12 and what will be the final analysis of the lower court. However, this indicates a turnaround in the previous court precedents.

Although this is the position of the Brazilian Superior Court of Justice, all the cases analyzed are just precedents which are non-binding to the tax authorities. Therefore, the subject tends to be further analyzed and litigated until a final binding decision is taken by the judicial courts.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Brazil's transfer pricing rules, which took effect on 1 January 1997, have been very controversial since the beginning, as they do not follow the internationally accepted arm's-length principle. The Brazilian transfer pricing rules are based on fixed margins and

²¹ Appeal to Superior Court of Justice – Recurso Especial (REsp) n. 1.161.467, ruled on 17 May 2012; REsp 1.272.897-PE, ruled on 19 November 2015; Resp 1.618.897-RJ, ruled on 19 May 2020.

²² Appeal to Superior Court of Justice – Recurso Especial (REsp) n. 1.759.081, ruled on 18 December 2020.

methods, which can be chosen according to the taxpayer preference, as there is no best method practice applicable.

The maximum price ceilings for deductible expenses on inter-company import transactions and minimum gross income floors for inter-company export transactions are determined via traditional methods and standard margins, chosen by the taxpayer, without analyzing functions, assets and risks assumed in comparison with non-related operations. There is only a limited benchmarking analysis, considering, for instance, the average price practiced by third parties depending on the method applied. The rules address imports and exports of products, services and rights charged between related parties with the same methodology, except for intercompany financial operations. There are no specific rules for intangibles or royalties and cost sharing agreements. Safe harbour provisions are only applicable to exportations and there are no provisions for advanced pricing agreements (APA).

Regarding its scope, it is broader than the OECD Transfer Pricing Guidelines as it also covers transactions between Brazilian residents and residents in low-tax jurisdictions (as defined in the Brazilian legislation), regardless of being considered related parties. Brazilian legislation does not provide the taxpayer with the possibility of utilizing additional methods, such as the Transactional Net Margin Method (TNMM) or the Profit Split Method (PSM).

There is no specific provision related to data transaction. However, considering its tax characterization as services provision, the same general rules should be applicable.

The maximum transfer pricing ceiling that can be paid, in order to guarantee the service cost deductibility, will depend on the analysis of the following methods:

- Comparable independent price method (PIC)
PIC is the Brazilian equivalent to the Comparable Uncontrolled Price (CUP) method and defined as the weighted average price for the year of identical or similar services obtained either in Brazil or abroad in buy/sell transactions using similar payment terms.
- Resale price less profit method (PRL)
PRL is the Brazilian equivalent to the Resale Price Method (RPM) and defined as the weighted average price for the year of the resale of services minus unconditional discounts, taxes, commissions and a gross profit margin determined in the tax legislation. As of 1 January 2013, a 20% gross profit margin is required for services' companies, calculated based on the percentage of the value imported over the final resale price.
- Production cost plus profit method (CPL)
CPL is the Brazilian version of the Cost Plus (CP) method, defined as the weighted average cost incurred for the year to produce identical or similar services in the country where they were originally performed, increased for taxes and duties imposed by that country on exportation plus a gross profit margin of 20%, and calculated based on the obtained cost.

In the case of exportation of services, the legislation provides a safe harbour whereby a taxpayer is deemed to have an appropriate transfer price with respect to export services when the average export services price is at least 90% of the average domestic services price of the same services in the Brazilian market. The same period and similar payment terms must be observed.

If not applicable, the taxpayer must apply the following methods:

- Export sales price method (PVEx)
The Brazilian version of the CUP method for exportations is defined as the weighted average of the export sales price charged by the company to other customers or other national exporters of identical or similar services during the same tax year using similar payment terms.
- Resale price method
The Brazilian equivalent of the RPM for export transactions is defined as the weighted average price of identical or similar services in the country of destination under similar payment terms reduced by the taxes included in the price imposed by that country and a fixed margin of 15% (wholesale price) or 30 % (retail price).
- Purchase or production cost-plus taxes and profit method (CAP)
The Brazilian version of the CP method applied for exportations and defined as the weighted average cost of acquisition or production of exported services increased for taxes and duties imposed by Brazil, plus a profit margin of 15%, calculated based on the sum of the costs, taxes and duties.

Part Four: Special regimes

The purpose of this section would be to present the special regimes that would apply to the development and sale of big data enabled goods or services. However, there is no digital services tax implemented in Brazil, nor specific tax incentives for big data development or exploitation or barter treatment for VAT or other purposes. Therefore, there are no relevant considerations to be made in this section.

Part Five: Indirect tax

As mentioned above, Brazil is a three-level Federation and the Union, states and municipalities tax consumption at these three levels. For all the reasons presented in section 1, data transactions are qualified as services. Therefore, indirect taxation is concentrated on ISS, a municipal tax that levies the provision of services as stated in a national statute, and PIS and COFINS, two social contributions assessed by the Union. Although qualifying the type of service being provided (i.e., whether it is a technical, professional or any other type) is relevant from an income tax standpoint, this qualification is not relevant from the indirect taxation standpoint and, for this reason, is not addressed in this section.

With respect to ISS, as stated before, the condition for its incidence is the express provision of the service in the list attached to the national ISS statute (Complementary Law nº 116/2003). Operations with data are mentioned in at least three items of the service list:

- 1.03 – Processing, storage or hosting of data, text, images, videos, electronic pages, applications and information systems, among other formats, and similar.*
- 1.07 – Technical support in computer science, including installation, configuration and maintenance of computer programs and databases.*
- 17.01 – Advice or consultancy of any nature, not contained in other items in this list; analysis,*

examination, research, collection, compilation and supply of data and information of any nature, including registration and similar.

In any case, the tax will be due at the place of the provider's establishment or, in its absence, at the provider's place of domicile, in accordance with article 3 of Complementary Law 116/2003. The incidence of the tax occurs throughout the national territory and depends on the creation of specific municipal laws that define the taxable services – always in compliance with the national statute – and the applicable rate, which can vary between 2% and 5%.²³

Regarding international operations involving the provision of services, Complementary Law 116/2003 foresees the incidence of the ISS on the service coming from abroad or whose rendering has started abroad (article 1, §1º). As for the export of services, in spite of assuring the absence of taxation, Complementary Law 116/2003 created many debates with a specific provision: the rendering of services developed in Brazil, which results are verified in the country, are not qualified as export, even if a non-resident paid them.

The issue here is the concept of result, for purposes of delimiting the non-assessment of ISS in the export of services. The controversy was largely caused by the fact that Complementary Law 116/2003 does not define the extension and scope of that concept. The difficulty lies precisely in identifying, for the services developed in Brazil, when the result is verified in the Brazilian territory and when the result is taken abroad.

There are two positions in dispute. On the one hand, taxpayers defend the existence of service exportation whenever it is possible to identify the fruition (result) of the service outside Brazilian territory limits (utility theory) – regardless of whether the payment was made in Brazil or abroad. On the other hand, tax authorities state that the result of the service is verified at the place where it is consummated (completion theory), regardless of the place where the utility resulting from the service is enjoyed.

From our perspective, given the definition of service mentioned above (service as utility), it is reasonable to argue that the result is equivalent to the utility that the service provides to the taker. In other words, taxation should occur where the consumer of the service takes the utility. This position is aligned with basic principles of international trade: generally, taxation is levied on consumption and not on the activity that gave rise to the good or service that is the object of consumption. Thus, the result should not be confused with the completion/consumption of the service but it should rather be related to the place where the utility is made available to the service takers.

Nonetheless, there are scarce judicial decisions on the subject, which remains controversial. In a recent decision, the Superior Court of Justice decided to apply the “fruition theory”; i.e., even in cases where the service has been fully concluded in the national territory, it will be recognized that the performance of an export of services when it is possible to verify in the service agreement object that there is the purpose of performing the service, in the future, abroad.

Based on this orientation, even if the service has been concluded in the national territory, it is possible to recognize the exportation whenever it can be demonstrated that the foreign contractor is specifically interested in importing the service to be provided by the Brazilian company in its territory. This opinion is in line with the Internal Revenue Service Normative Opinion COSIT/RFB nº 1/2018, which, in relation to services whose

²³ According to arts 8º and 8º-A of Complementary Law 116/2003.

provision does not require the physical presence of the provider (as is the case with data operations), highlights:

Having verified that a relevant part of the service must necessarily be provided at a certain location, the taker's demand is considered to be met there; if, although a physical presence at a certain location is not required for the performance of the service, indirect presence (through subcontracting) or virtual presence (e.g. access compulsorily) is necessary, by electronic means, local services without which the provision would require the physical presence in that place), the taker's demand is considered satisfied there; if there is no territorial connection element related to the provision, the taker's demand is considered satisfied in the place of his residence or domicile.

A practical example can be useful to illustrate this topic. Consider the factual situation described in the "Data Feeds" case, assuming Animal Data Co is located in Brazil and Information Site Co abroad. The latter hires the former for a monthly fee, to provide continuous information regarding migration patterns and predictions of animal behavior. In this case, as Animal Data Co would be providing services abroad, would ISS be levied? The answer to the question is in the concept of "result".

In this case, despite the fact that the service is only possible due to data collected in Brazil, the beneficiary of the service is Information Site Co, located abroad. Although this fact alone is not enough to claim the non-assessment of ISS, it should be noted that Information Site Co uses the data collected by Animal Data Co to feed its website, located outside Brazil, and thus maintain the proper flow of visitors, who are not necessarily from Brazil. The fact that the information is obtained in Brazil but used in different locations is in accordance with the "fruition theory" recently adopted by the Superior Court of Justice and tax authorities. Therefore, it would be reasonable to assume that this hypothesis would be exempt from the payment of ISS.

We should also mention the existence of a statutory bill still pending a vote in parliament (Complementary Bill 463/2017) that aims to recognize the occurrence of exportation of services and, consequently, the non-assessment of taxes, whenever the benefits of the service are verified in foreign territory and there is the entrance of foreign currency in the country.

In our view, the bill correctly provides that "the place where the benefits of the service are verified independently of the place where the service is performed". Thus, even if the services were rendered in Brazil, they would be immune to the incidence of ISS, provided that the result (the utility) occurs abroad.

The "result" definition is also relevant from an importation perspective, as in the opposite scenario the same proportional conclusions need to be applicable: if the benefits arising from the services performed are in Brazil, the "result" is effectively perceived in the taker's country and an importation of services is characterized for tax purposes, subjecting the transaction to ISS taxation.

With regard to PIS and COFINS, as mentioned above, both taxes are social contributions levied on the gross revenues of legal entities, pursuant to article 195, item II, "b" of the Constitution. Currently, there are two possible tax regimes for these contributions: cumulative and non-cumulative. The fundamental difference between both is in the tax rate and the possibility of appropriation of credits for purposes of ensuring the non-cumulative right provided by law. The adhesion to the non-cumulative regime is mandatory for legal entities with revenues exceeding BRL 78 million per year.

Specifically, in relation to transactions with data, we should also consider the provisions

of article 195, item IV of the Brazilian Constitution, which provides for the collection of social contributions on the import of goods and services, alongside Law 10,865/2004, which created such contributions (PIS/COFINS Imports). According to the Law, the PIS/COFINS over importation will be assessed upon the entry of the foreign goods in the national territory or upon the payment, credit, delivery, employment or remittance of values to residents or domiciled abroad as a counterpart for services provided (article 3 of Law 10,865/2004).

Moreover, as provided in article 1, paragraph 1 of Law 10,865/2004, services from abroad are considered those rendered by an individual or legal entity resident or domiciled abroad in cases where they have been performed in Brazil or, being performed abroad, the result has been verified in Brazil.

One can see how the discussion about the concept of “result” is also relevant in this case. The same reasoning regarding ISS in the exportation of services is applicable here: taxation should occur in the location where the consumer of the service takes utility. Being this location Brazil, there will be the incidence of ISS and PIS / COFINS Imports.

Finally, the revenues from the export of services – as in the “Data Feeds” case mentioned above – will not suffer the incidence of PIS and COFINS, as provided in article 14, item III of Provisional Measure 2,158-35/2001, article 5º, item II of Law 10,637/2002 and article 6º, item II of Law 10,833/2003. Here too the concept of “result” is crucial in order to qualify the effective export of services. For this reason, we refer to the debate around this concept in the light of the ISS.

Part Six: Tax accounting

As big data transactions are considered either as general services or technical services, from an accounting perspective they are booked as any other operational income or expense. The issues regarding different characterization as technical or general services only result in material uncertainty or anomalous results considering tax impacts.

Part Seven: Other

As mentioned above, the distribution of the power to tax in Brazil is made by the Constitution, which ensures revenues for all federative entities: Union, states and municipalities. From the perspective of the Union, however, besides the possibility of creating taxes on the facts detailed in the Constitution, there is also the possibility of creating specific contributions, in order to designate public resources to certain areas.

Apart from the specific indirect taxes and CIT impacts treated above, there are at least two additional observations that provide the full scenario of data taxation in Brazil. Both concern federal taxation in cases where there are international transactions with data.

First, if there is an international remittance of funds or receipt of amounts from abroad, a foreign exchange operation will be necessary, either to convert the amounts into national currency (i.e. Brazilian Real), in cases where the beneficiary of the payment is in Brazil, or to perform the remittance abroad, in cases where the service taker is in Brazil. In any case, once we are faced with a foreign currency exchange operation, a federal tax on financial operations (the so-called IOF) will be due, under the terms of article 153, item V of the

Constitution, and disciplined by Law 8,894/1994 and Decree 6,306/2007.

The tax will be due upon settlement of the exchange transaction at the rate of 1.1%, in the case of a beneficiary located in Brazil (article 15-B, item XXI of Decree 6,306/2007), and 0.38% (article 15-B, caput of Decree 6,306/2007) in the event of remittance abroad. The tax rate is levied on “the amount in Brazilian currency, received, delivered or made available, corresponding to the value, in foreign currency, of the exchange transaction of the remittance made”, pursuant to article 14 of Law No 8,894/1994.²⁴

In case of exchange transactions due to the entry in Brazil of revenues from the export of goods and services, the IOF rate will be zero (article 15-B, item I of Law 8.894/1994). On the subject, we refer to section 5, in which we analyze the conditions to qualify a given transaction as an exportation of services.

In addition to the IOF assessment, it is also important to highlight the possibility of collecting the so-called CIDE Remittances, a Contribution for Intervention in the Economic Domain created by Law 10,168/2000 and already mentioned in this report.

According to article 2, paragraphs 2, 3 and 4 of Law 10,168/2000, the contribution shall be levied at a rate of 10% on amounts paid, credited, delivered, employed or remitted to non-residents, for technical and administrative assistance services and similar services or royalties remuneration.

The assessment of CIDE Remittances in the event of transactions with data will depend on the legal qualification of the operation and, thus, on the existence or not of technical services. On this matter, we reinforce the aforementioned determination of the Brazilian Federal Revenue Service regarding the qualification as a technical service every execution of a service that “depends on specialized technical knowledge or that involves administrative assistance or consulting, performed by independent professionals or with employment relationship or, still, resulting from automated structures with clear technological content.” In order to evaluate this topic, the use of a practical example is useful.

Consider the hypothesis described in the case “Data Brokers / Information Resellers”, regarding the sale of information. The company’s activity is to obtain data from various sources with the aim of establishing profiles of consumer behavior. This information is obtained through application program interfaces (“APIs”) to which the website owner (“Website Co”) authorizes access by traffic information on its page. In addition, such data may be obtained from other sources, such as loyalty cards, social networks and others. Such company, called Broker Co, makes annual payments to the Website Co for access to data generated through the API and sells copies of data sets to Customers, mostly located outside Broker Co’s country of residence.

As far as the nature of the activity performed by Broker Co is concerned, the operations will always be characterized as the provision of a technical service under Brazilian legislation. For purposes of CIDE Remittances, we must consider that Broker Co is located abroad, while Customers are in Brazil. In this situation, the remittances resulting from the payments made by the Customers to Broker Co will be subject to the incidence of CIDE, to be collected at the time of remittance of the amounts to Broker Co.

The qualification of this type of service as a “technical service” and, thus, subject to the CIDE Remittances, derives from the wording of the Normative Instruction 1,455/2014,

²⁴ According to Normative Instruction 1.801 of 2018, it is possible for Brazilian exporters to keep the foreign resources received as exportations payment in foreign financial institutions bank accounts. These resources can be utilized in the payment of any obligation of the exporter. In these situations, including, for instance, the payment of services imported by the exporter, there will be no foreign exchange operation subject to IOF.

according to which a service is considered a “technical service” in cases where its execution depends on technical knowledge or, still, results from automated structures with evident technological content.

Also regarding CIDE there are some controversies to be analyzed. According to tax authorities, the contribution should be levied, independently of any technology transference, whereas taxpayers argue the contribution should only be levied when a technology is transferred according to a proper agreement or a technological knowledge is acquired. Some controversial internal rulings²⁵ were issued about the matter as well as administrative decisions.

By September 2018, the Higher Tax Appeals Chamber (Câmara Superior de Recursos Fiscais – CSRF) determined in the binding precedent 127, which can still be argued in judicial courts, that CIDE should be levied whenever there is an importation of technical service, performed by non-residents, independently of technology transference.

In the present case, there is no doubt that the activity performed by Broker Co would be characterized as such: the capture and processing of data in order to establish profiles of consumer behavior is only possible by obtaining information from automated structures, i.e., the application program interfaces to which Website Co authorizes access by traffic information on its page.

Despite the fact that there is no clear position of the Brazilian Internal Revenue Service on the taxation resulting from the remittance of amounts abroad on the account of the sale of data sets, in light of the positions already existing, it is reasonable to assume that Brazilian authorities will endorse this interpretation. On this subject, mention should be made of Normative Opinion 191/2017, which dealt with the taxation arising from remittances due to authorization of use and access of SaaS, Software as a Service:

[...] Therefore, the services made available to users are characterized as technical services, since they depend on computer expertise and, moreover, as can be seen from the system reported by the consultant, the services derive from automated structures with clear technological content, which users will access at a distance to use them in their business activities, with the provision of maintenance and technical support by the service provider.

The fact that Customers will download the data sets from Broker Co server's does not modify the qualification of the activity as a technical service: its access is only possible due to the use of automated structures with technological content. Therefore, remittances related to it should be taxed by CIDE Remittances.

The same conclusion can be applied to case study “Analytics Based Consultancies” and any other case that involves operations with data provided from an enterprise located outside Brazil: remittances related to the payment for the transfer of raw, structured or aggregate data, will be taxed by CIDE Remittances.

²⁵ Internal Rulings 65 of 2011; 78 of 2013 and others.

Part Eight: Reference case studies

The relevant aspects of some of the cases were treated in the previous sections, contextualized with the topics then addressed. Below, we make a summary of the conclusions.

8.1. Data brokers / Information resellers

- (i) The operation conducted by Broker Co will always be characterized as the provision of a service under Brazilian legislation. What might differ is, depending on the structured database and analysis performed on the data by Broker Co, the service being configured as a technical service with the imposition of withholding tax both domestically and internationally, which will also result in the CIDE taxation.
- (ii) Source of income depends on who is performing the payment (customer), according to Brazilian legislation.
- (iii) Under Brazilian legislation there is no direct tax nexus for Website Co or Broker Co outside their countries of residence, unless they have a PE in Brazil which provides the service and is, or the payment is performed by a Brazilian source, resulting in withholding tax being levied.
- (iv) There is not a most appropriate method under Brazilian TP legislation. The Website Co or Broker Co if resident in Brazil, would be able to apply any of the permitted methods and fixed margins ruled by Brazilian legislation.
- (v) Broker Co's data acquisition costs and software development expenses can be deducted as long as they are related to Broker Co's activity and are a necessary (usual or normal) expense for the performance of its business, according to article 311 of Decree 9.580 of 2018.
- (vi) There are some bills currently being analyzed by the Congress. One of them is the Bill 2,358/2020 of the Federal Deputy João Maia (PL/RN), which aims at establishing a CIDE for the taxation of gross revenue of big technology companies. Depending on the total gross revenue of Website Co or Broker Co (i.e. if above BRL 3 billion of global gross revenue and above BRL 100 million of source gross revenue), should the bill be approved, the revenue derived from selling the data sets could be taxed in Brazil.

8.2. Data Feeds

- (i) The operation will also be characterized as the provision of a service under Brazilian legislation. What might differ is, depending on the data analytics software developed by Animal Co, the service being characterized for tax purpose as a technical service with the imposition of withholding tax both domestically and internationally, which will also result in the CIDE taxation.
- (ii) The source of income, considering current Brazilian tax legislation is defined based on where the income paid to Animal Co services is coming from or from which state the paying clients are remitting their payments.
- (iii) There would be a taxable nexus in Information Site Co jurisdiction should it be resident in Brazil and the source of payment made to the non-resident Animal Data co. Basically, withholding tax of 15% would be levied, as well as CIDE and the other taxes described

in the branch report. Although only the withholding tax would be a taxation on the non-resident income.

- (iv) Considering the complex and controversial interpretation of tax treaties held by tax authorities, the payments performed by Information Site Co could either be treated as business profits under article 7 or royalties/technical services under article 12, even if no technology is transferred, or even in article 14, depending on the nature of the service. Normally it should be treated by tax authorities as payments performed under article 12.
- (v) Brazil would continue to levy ISS and tax the operation as a service provision.
- (vi) Yes, according to Bill 2358/20, if Animal Co has a global gross revenue above 3 billion reais and a gross revenue above BRL 100 million, its revenue could be taxed in Brazil, should the Bill be approved.

8.3. Data analytics

- (i) Character: the tax character of the transaction will not be affected because there is an automatization. The analysis performed by the software in a customized perspective and which results in the creation of value via data analysis, will continue to be considered as a service.
- (ii) Source: the lack of direct human involvement in the service delivery at the time of delivery will not change the source jurisdiction configuration; as long as the service payment is performed by a Brazilian resident it will be subject to taxation in Brazil.
- (iii) Nexus – sensors: Brazilian tax legislation does not have a definition of permanent establishment. There is not even a guidance in the current jurisprudence or related tax legislation. It is important to note, however, that according to Brazilian Civil Law (article 134 of Brazilian Civil Code) there is no the possibility for a foreign entity, even by subordinated establishments, to exercise its activities in Brazil, unless it is expressly authorized by the executive power. Apart from that, in case an equipment is located in Brazil and is only utilized to obtain information, it could be considered under the exceptions provided under article 5 of tax treaties.
- (iv) Nexus – data centers: according to Brazilian foreign profits tax legislation (Law 12.973 of 2014) the profits of a Brazilian separately incorporated affiliate will be subject to taxation in Brazil, because they are considered an increase of the Brazilian controller company equity. This is one of the major international tax disputes in Brazil, as even if there is a tax treaty concluded by Brazil, the profit of the foreign affiliate will be subject to taxation in Brazil, if Service Co is a resident. The applicability of the tax treaty is disregarded, because according to Brazilian tax authorities what is being subject to taxation is the equity increase equivalent to the profit earned by the foreign affiliate and not its profit. Should the data center assets be directly owned by Service Co, the profits generated would also be subject to taxation in Brazil, considering worldwide taxation basis and residence jurisdiction. In case the data center is owned by an unrelated party cloud hosting services provider the profits will also be subject to taxation in Brazil, because withholding tax will be levied over payments performed to the third party (if applicable).
- (v) Treaty application: as referred above, the payments regarding technical services will be subject to taxation according to article 12; if not according to article 14 and only residually, article 7 will be applicable (and also in some specific tax treaties related

above). In spite of the tax authorities' position, taxpayers can litigate in order to obtain a judicial decision for the application of article 7.

- (vi) transfer pricing: in any of these cases, the transactions will be assessed under the arm's length principle, once they will be considered a service provision. There is not a best method approach under Brazilian legislation and the same methods and margin will be applicable, independently of the different contributions to value.

8.4. Analytics based consultancies

- (i) Character: independently of Consultant Co commercialization models, the consultancy will be taxed as a service.
- (ii) Treaty application: the same implications applied to the other examples would be applicable here.
- (iii) DST: according to the other cases mentioned above, there are some bills currently being analyzed by Congress to introduce a DST in Brazil. One of them is the Bill number 2358/2020 of the Federal Deputy João Maia (PL/RN), which aims at establishing a CIDE for the taxation of gross revenue of big technology companies. Depending on the total gross revenue of the data company (i.e. if above BRL 3 billion of global gross revenue and above BRL 100 million of Brazilian source gross revenue), should the bill be approved, the revenue derived from commercializing the student information database could be taxed in Brazil.

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Summary and conclusions

The objective of this report is to provide an overview of the Canadian taxation regime applicable to big data by addressing the following two main components: (1) the taxation of big data under domestic rules from an income and sales tax perspective, and (2) the application of Canada's tax treaties to big data.

Canadian tax law has left the explicit question of big data unaddressed and taxpayers must therefore rely on general principles to determine the income and sales tax consequences of big data transactions.

Income Tax

From an income tax standpoint, the first step is to ascertain the nature of, and circumstances surrounding, a transaction to identify the “source” of the income arising therefrom, namely business, property or capital gain. In the context of big data, the most likely scenarios are the sale of data or rights in respect thereto, the licensing of data or rights in respect thereto and the provision of data as a service.

In the case of a sale of data or rights in respect thereto, the income derived therefrom can be on capital or income account. For non-residents, if on income account it would be subject to tax in Canada only to the extent that the income is *arising* from a business carried on in Canada. As for a sale on capital account, it will be subject to tax only if it can be established that the data or the rights in respect thereto are *used in and form part of a business* carried on in Canada. While the threshold to be considered to carry on a business is quite low under the *Income Tax Act*, one must also carry on the business “in Canada,” which generally means that profits must arise from the activities taking place in Canada. It should also be noted that business income is fully taxable, whereas only fifty percent of any capital gain is taxable.

Licensing can give rise to business or property income, depending on the circumstances. Royalties and other-like payments (the taxing provision is extremely broad) received by a non-resident of Canada are generally subject to withholding tax at the rate of 25% unless the non-resident carries on a business in Canada through a permanent establishment (such that the royalties are therefore already subject to Canadian taxation). Various exceptions

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apply to the 25% withholding tax, notably for copyrights in respect of the production or reproduction of any literary, dramatic, musical or artistic work, which could include datasets. Certain payments can be subject to withholding tax even if the property in respect of which the payment is made is not used in Canada, as long as there is an element of dependency.

As for data as a service, it would generally be treated as business income and, in the case of a non-resident service provider, would be subject to tax if the activities of the non-resident amount to a business being carried on in Canada, as highlighted above. Services rendered in Canada by a non-resident are subject to deductions at source that may be refunded if the non-resident can demonstrate that it is not otherwise subject to tax in Canada.

Treaty Provisions

The income taxation of non-residents can be modified by one of Canada's 94 tax treaties. To benefit from a tax treaty, a non-resident seeking its application must be a "resident" of the relevant country and, as a result of the recent enactment of the OECD multilateral convention, must generally satisfy the "principle purpose test."

Where a treaty applies, a non-resident carrying on business in Canada will not be subject to tax in Canada unless it has a permanent establishment in Canada. Based on current case law and the OECD Commentary, big data transactions are unlikely to give rise to a permanent establishment in Canada unless the non-resident has a server at its disposal in Canada and the activities carried out through such server are not preparatory or auxiliary. Even if the non-resident has a permanent establishment in Canada, allocating income to it might prove difficult. As for the sale of data on capital account, it could only be subject to tax in Canada if the data is considered personal property and forms part of the business property of a permanent establishment in Canada.

Finally, and contrary to the OECD Model, Canada's treaties generally preserve Canada's right to tax Canadian-sourced royalties, subject to specific exemptions or rate reductions. Particularly relevant to data transactions are the exemptions for copyright royalties (and other like payments) in respect of the production or reproduction of any literary, dramatic, musical or artistic work, payment for the use of computer software and payments for the use of patent and information concerning industrial, commercial or scientific experience. It should also be noted that the royalty article in Canada's treaties is generally narrower in its application than the domestic charging provision, resulting in various payments that would otherwise be subject to withholding tax under the *Income Tax Act* being exempt under an applicable treaty (if a payment is not a royalty for the purposes of the relevant treaty, it will only be subject to tax in Canada if it pertains to a business carried on in Canada by the non-resident through a permanent establishment).

Sales Taxes

From a sales tax perspective, most data transactions should be subject to the federal goods and services tax (GST), which is a value-added tax. GST applies to supplies of services, as well as intangible and tangible property. Distinguishing services, intangible property and tangible property is particularly relevant for non-residents of Canada as the "place of supply" rules, which determine whether a particular supply is made in Canada and therefore subject to GST, vary from one type to another.

Other

The authors also briefly address transfer pricing, tax accounting and special regimes (including the newly announced digital service tax) that could be relevant to big data transactions.

Introduction: Legal background

Canadian law has mostly left the explicit question of big data unaddressed. There does not appear to be a court-recognized general property right in data *per se*, nor any general statutory recognition providing for a generalized property right in data. When claims of ownership are asserted, they are often based on copyright law, which applies to certain forms that data may take, such as tables or graphs, and does not exist in data or ideas alone.³

Whereas Europe has created a *sui generis* right and required member states to enact laws that would protect the investment that went into the creation of databases, Canada has not considered *sui generis* protection of databases. Thus, where the EU Database Directive provides that databases which “by reason of the selection or arrangement of their contents constitute the author’s own intellectual creation” are protected by copyright, and that any temporary or permanent reproduction is prohibited,⁴ Canada has not mirrored such protection. Since Canada has not presented any legislation to specifically protect databases, the industry has evolved more freely under the protections of, *inter alia*, copyright law and contractual terms of use.⁵

Copyright Law

Pursuant to the *Copyright Act*,⁶ which sets out copyright law in Canada, copyright protection is afforded to literary, dramatic, artistic and musical works, which include lists, charts and computer programs, among others. As for databases, the *Copyright Act* recognizes that “compilations” consisting of “the selection or arrangement of data” may also be protected by copyright.⁷ However, these extensive categories are limited by certain criteria required for copyright to apply, being that the work must be original.⁸ To be original, three components are required: (i) the work must not be a mere copy of another work; (ii) the work must be a product of an exercise of skill and judgment; and (iii) there must be a human author.⁹ The originality standard is applied differently, based on the category of works.

³ See, however, *Geophysical Service Inc v Encana Corp*, 2016 ABQB 230, 38 Alta LR (6th) 48, aff’d 2017 ABCA 125, leave to appeal denied 2017 CanLII 80435 (SCC), which recognized certain copyright in data itself.

⁴ Roland Hung, “Big Data: Legal Aspects from a Canadian Perspective – Part I”, Lexology, online: <https://www.lexology.com/library/document.ashx?g=4addf11d-261f-4b54-a10e-3277a4b56bcd> [Hung].

⁵ Teresa Scassa, “Data Ownership” (2018) 187 CIGI Papers, Ottawa Faculty of Law Working Paper No. 2018-26 [Scassa].

⁶ Copyright Act, RSC 1985, c C-42.

⁷ *Ibid*, s. 2.

⁸ Hung, *supra* note 4.

⁹ Scassa, *supra* note 5.

As a result, in order to determine whether a database is afforded copyright protection, the assessment of its originality, *i.e.* the contribution of the author who created the compilation, is necessary. More specifically, the work of the author in selecting and arranging the different elements contained within the compilation must be original in order to be protected by copyright.¹⁰ It is thus the compilation itself that is protected, and not the individual elements making up the compilation. The Federal Court of Appeal decided in *Tele-Direct*¹¹ that telephone directories did not meet the standard of originality to give rise to copyright protection as it did not display a minimal degree of skill, judgment and labour in its overall selection or arrangement. The Supreme Court of Canada further clarified the originality standard in *CCH Canadian Ltd. v. Law Society of Upper Canada*,¹² stating that the work must be a product of the author's exercise of skill and judgment.

Contract Law

Parties are free to regulate the use of data per the terms of a contract, which can provide flexibility and additional protection. For instance, an agreement may provide access to data and limitations on its use, though the contract would not in itself create actual property rights, *i.e.* the contract would be binding between the parties, but such rights may not be enforceable against third parties.

Part One: Basic principles: Character, source and nexus

1.1. General overview

There are no particular tax laws, nor any specific provisions in the *Income Tax Act* (Canada)¹³ relating specifically to big data transactions. Existing rules are apparently deemed capable of governing the taxation of an increasingly digitalized and data-driven economy.

Under the ITA, the sourcing of income is of fundamental importance in determining the tax liability of Canadian residents and non-residents alike. At a high-level, the ITA asserts a jurisdiction to tax Canadian residents on income from all sources (*i.e.* worldwide income) and non-residents on income arising from a source considered to be within Canada.

The notion of “source” of income is not defined under the ITA, nor does the ITA include thorough and explicit sourcing provisions. Rather, the ITA describes circumstances that may result in income and in respect of which Canada can assert its tax jurisdiction.¹⁴

As is the case with more traditional forms of transactions, data transactions may, *inter*

¹⁰ *Robertson v Thomson Corp*, 2006 SCC 43; *Tele-Direct (Publications) Inc v American Business Information, Inc.* (CA), [1998] 2 FC 22 [Tele-Direct].

¹¹ *Id.*, Tele-Direct.

¹² *CCH Canadian Ltd v. Law Society of Upper Canada*, 2004 SCC 13.

¹³ RSC 1985, c.1 (5th supplement), as amended [ITA].

¹⁴ For a more thorough discussion, see [Jinyan Li and J. Scott Wilkie, Source of Income and Canadian International Taxation, *Income Tax at 100 Years: Essays and Reflections on the Income War Tax Act*, (Toronto: Canadian Tax Foundation, 2017), at pp. 10:17 to 10:19.

alia, come within the ambit of Part I and Part XIII of the ITA (referred to in Part One of this branch report as “Part I” and “Part XIII”).

Part I generally ensures that Canadian residents are taxed on income from all sources, whether inside or outside Canada,¹⁵ and that non-residents are taxed on income from the three following sources:

- i. income from employment in Canada;
- ii. income from a business carried on in Canada; and
- iii. gains from the disposition of a taxable Canadian property (“TCP”).¹⁶

This report will be limited to the second and third sources of income referred to above.

The provisions of Part XIII are also addressed herein as such provisions may deem certain types of payments made by Canadian residents to non-residents to arise from a source within Canada. Where applicable, Part XIII requires the Canadian payer to withhold and remit tax on behalf of the non-resident.

For greater clarity, in this report, the notion of “source” refers to the circumstances from which income originates¹⁷ and should be distinguished from the character of income, which typically relies on the intrinsic nature of income based on the common law.¹⁸ The character of income bears particular relevance under Part XIII and is addressed in more detail below.

Although a review of the various sources of income referred to in the ITA¹⁹ is beyond the scope of this report, it should be noted that, generally:

- i. income from a business implies a certain level of activity in the pursuit of profit and can arise from “anything which occupies the time and attention and labour of a man for the purpose of profit;”²⁰
- ii. income from property is income derived from a capital asset in a passive manner without any significant investment in time, attention and labour – otherwise said, it is “the yield from property;”²¹ and
- iii. a capital gain arises from the realization of a capital asset.²²

Income from a business or property is fully taxable, whereas only half of a capital gain is included in income as a “taxable capital gain.” As is more thoroughly discussed below, data transactions may give rise to income under Part I from any of the foregoing sources depending on the surrounding circumstances.

Before going any further, it should be emphasized that the ITA, like other Canadian tax statutes, does not operate in a legislative vacuum but, rather, relies on general law.²³ Hence, a data transaction should be characterized based on the common law, including copyright

¹⁵ Subject to certain reliefs, including foreign tax credits and tax treaties.

¹⁶ Ss. 2(3) ITA.

¹⁷ A source of income within Canada thus refers to a set of circumstances from which income originates and on which Canada asserts a tax jurisdiction. Implicit to the foregoing is that, in such cases, the ITA deems sufficient nexus to exist between such income and Canada, resulting in Canada asserting its jurisdiction to tax.

¹⁸ *e.g.* an item of income may be characterized as rent, royalty, a license fee, etc.

¹⁹ For a discussion of the source rules in the context of digital transactions, see Jinyan Li, *Rethinking Canada's Source Rules in the Age of Electronic Commerce: Part I*, (1999) 47:5 Canadian Tax Journal 1077-1125 [Jinyan Li, *Electronic Commerce Part 1*].

²⁰ *Stewart v. Canada*, 2002 SCC 46, at para. 38 [Stewart].

²¹ See Krishna (2014), Vol. 1 Fundamentals of Canadian Income Tax, Chapter, 7 – Business Income.

²² *Id.*

²³ *Markevich v. Canada*, 2003 SCC 9, at para. 14.

and contract laws. Given the lack of a clear statutory framework and heavy reliance on contract law, the substance of data transactions can be blurred; it may be difficult to differentiate a sale of digital goods, the provision of services and licensing. Moreover, while the economic substance of a transaction could tend to indicate that its object is data itself, its legal construction may rather involve the transfer or grant of rights into data. For Canadian tax purposes, absent specific provisions to the contrary, the legal substance of a transaction trumps its economic substance.²⁴

1.2 The character of data for the purposes of the ITA

The Organisation for Economic Co-operation and Development (the “OECD”) defines data as “information, usually numerical, that are collected through observation.”²⁵ A data set is an organized collection of data.²⁶

The ITA recognizes the following types of property:

- i. inventory;
- ii. capital property other than depreciable property; and
- iii. depreciable property.

Subsection 248(1) ITA provides that “property means property of any kind whatever whether real or personal, immovable or movable, tangible or intangible, or corporeal or incorporeal” including, *inter alia*, “a right of any kind whatever.” Although circular, the definition clearly purports to be very extensive.

This does not mean, however, that anything can qualify as “property.” For instance, in *Manrell*, the Federal Court of Appeal held that a covenant to not compete was not property because a general right to do something anyone can do is not “property” for the purposes of the ITA.²⁷ Rather, the existence of a “property” requires an “exclusive right to make a claim against someone else.”²⁸ In *Roth*, the Court found that information, ideas, knowledge and know-how did not fall within the meaning of the word “property,” since none of the foregoing could be said to be exclusive to one person.²⁹

It was also found that “know-how” could not qualify as property in the absence of some sort of “statutory monopoly,” such as a patent,³⁰ and that “property” was sufficiently broad to include a “contractual right.”³¹

Hence, one principle that may be extracted from the case law is that for an asset to qualify as “property” for the purposes of the ITA, its holder should, at the very least, possess a right against someone else and such right should not be shared with everyone.

Based solely on the applicable statutory framework in Canada, data would presumably not qualify as “property” unless it is a compilation protected under the *Copyright Act*.

²⁴ *Shell Canada Ltd. v. R.*, [1999] 3 S.C.R. 622, at para. 39.

²⁵ OECD Glossary of Statistical Terms, online (<https://stats.oecd.org/glossary/index.htm>).

²⁶ *Id.*

²⁷ *Manrell v. R.*, 2003 FCA 128.

²⁸ *Id.*, at para. 25.

²⁹ *Roth v. R.*, 2005 TCC 484, at para. 41, affirmed by the Federal Court of Appeal in 2007 FCA 38.

³⁰ *Rapistan Canada Ltd. v. Minister of National Revenue*, [1974] C.T.C. 495 (FCA), at para. 9, affirmed by the Supreme Court of Canada in [1976] C.T.C. 296.

³¹ *Golden v. R.*, [1986] 1 S.C.R. 209, at para. 9; see also *RCI Environment Inc. v. R.*, 2008 FCA 419, at para. 39.

However, a contract may go beyond such constraints by determining the rights of each party into data and thus one may by contract acquire an exclusive right to make a claim against someone else in respect of data, which would be “property” under the ITA.

As such, while data itself might not be property for purposes of the ITA, it appears plausible that a copyright or a contractual right in data would qualify as property.

1.3. Source

The economy of big data involves various types of transactions, some of which are less likely to be controversial in ascertaining the applicable tax treatment because their legal construction is well known and accepted. However, the proper characterization and sourcing of the following types of transactions may be blurred or intertwined and, therefore, are the focus of this branch report:

- A. the sale of data or rights thereto;
- B. the licensing, lease and grant of a right to use, or access to, data; and
- C. the provision of data as a service.

A. The sale of data or of rights thereto

From an economic viewpoint, possession of data may be transferred from one party to another.³² From a legal standpoint, it may be difficult to determine if data is sold as a digital good, or if the transaction is best described as a service, a license or something else. The distinction is relevant because withholding tax obligations may be triggered where a transaction involves the provision of a service in Canada or the grant of certain types of rights of use by non-residents to Canadian residents.

Although the transfer of data through contractual means would generally involve the grant of rights, the Canada Revenue Agency (the “CRA”) has stated that,

[i]n the case of the purchase of a digital product, the [CRA] considers that the customer makes the payment to acquire the ownership of data transmitted in the form of a digital signal. Any use of copyright involved in downloading the product is not an important part of the total consideration paid by the purchaser.³³

Although not free of doubt (and subject to the legal substance of the transaction at hand), if this position were to extend to big data transactions, it could be argued that where the consideration given up for the transfer of data is paid to acquire possession of data, rather than contractual rights revolving around data, a sale of a digital good may occur. Part XIII tax would typically not apply to a payment made for the provision of a good unless the *quantum* of the payment depends on the use to be made of, or on the output to be derived

³² For instance, a data broker could sell raw data, or a business with access to large volumes of data could collect and organize data to sell formatted data sets to third parties.

³³ CRA, Income Tax Technical News, ITTN-25, 30 October 2002 (“ITTN-25”); see however CRA, Ruling 2011-0416891R3 and technical interpretation 2010-0374421E5, in which the CRA concluded that payments for production or reproduction of certain copyrighted work for personal home use could be subject to withholding tax.

from, the good (the potential application of Part XIII is more thoroughly addressed below under *License, lease and grant of a right to use, or access to, data*).³⁴

For the purposes of Part I, the disposition of data, or rights revolving around data, may give rise to income from a business if disposed of on account of income, or to a capital receipt if disposed of on account of capital.

Very generally, data or rights in respect thereto may be held and disposed of on account of income if the profit-making apparatus of a business conducted by a taxpayer involves the sale of data, or the sale of rights in respect thereto, as part of its scheme for profit making, which may be the case where such sales occupy the attention and labour of the taxpayer's employees or agents. For example, in the Data Brokers case study,³⁵ income derived from the sale of copies of data sets to customers would likely give rise to income from a business for Broker Co, as it presumably actively spends time and resources to collect, aggregate and analyze data to create data sets to be sold at a profit.

For non-residents of Canada, income derived from a business would typically only be taxed in Canada under Part I if the business giving rise to such income is carried on "in Canada."³⁶ The location where a business is being carried on for the purposes of the ITA relies on various criteria developed under the common law, the most important inquiry being to determine the location from where profits arise.³⁷

Hence, the risk that a taxpayer be considered as carrying on business in Canada increases with the indicia of profit generating activities linked to Canada.³⁸ For example, the CRA has stated that a service business could be carried on in Canada without the presence of personnel in Canada, since "functions of a service business can be performed electronically."³⁹ One of the factors that would be taken into account by the CRA is the presence of digital inventory in Canada.⁴⁰ In this respect, the Federal Court of Appeal has in the past concluded that data that is readily accessible from Canada could be considered as located "in Canada" in the context of requests for information made by the tax authorities.⁴¹ Although it is unclear if this position could extend to other situations, there appears to remain a risk that data stored on servers outside Canada but routinely accessed from Canada may be considered to be located "in Canada" or otherwise be taken as indication of profit-generating activities linked to Canada. Nonetheless, for a non-resident to be liable for income tax in Canada, tax treaties will generally require the existence of a permanent establishment (a "PE") in Canada, as more fully discussed in Part Two.

³⁴ For a discussion of situations where the sale of a software program over the internet may give rise to a sale of a digital good, see Jinyan Li, *Rethinking Canada's Source Rules in the Age of Electronic Commerce: Part 2*, (1999) 47:6 Canadian Tax Journal 1411-1478, at page 1425 [Jinyan Li, *Electronic Commerce Part 2*]; and Peter Jovicic, Jaime Seidner, and Martin Sorensen, "Blurred Lines: Cross-Border Rents and Royalties in the 21st Century," Report of the Proceedings of the Sixty-Fifth Tax Conference, 2013 Conference Report (Toronto: Canadian Tax Foundation, 2014), 22:1-36, at pp. 22:10 to 22:15 [Jovicic, Seidner and Sorensen].

³⁵ The background of the "Data Brokers / Information Resellers" case study may be found in the general report.

³⁶ Para. 2(3)(b) ITA.

³⁷ *Firestone Tyre & Rubber Co v Lewellin*, 37 TC 111 [1957] 1 All E.R. 561; *Gurd's Products Co. v. R.*, [1985] 2 C.T.C. 85 (FCA), at para. 23; *GLS Leasco Inc. v. Minister of National Revenue*, [1986] 2 C.T.C. 2034 (TCC).

³⁸ For a more thorough analysis, see Charles T. Ormrod and John Bain, *Taxation Aspects of Cloud Computing*, Report of Proceedings of the Sixty-Fourth Tax Conference, 2012 Conference Report (Toronto: Canadian Tax Foundation, 2013), 18:1-28, at p. 18:23, at p. 18:19 [Ormrod and Bain].

³⁹ CRA, Technical Interpretation, 2008-0279141E5.

⁴⁰ *Id.*

⁴¹ *eBay Canada Ltd. v. MNR*, 2008 FCA 348 [eBay Canada]; Ormrod and Bain, *supra* note 38, at p. 18:23.

At a very high-level, data or rights in respect thereto may, alternatively, be held by a taxpayer on account of capital if held as means of production capable of being used to produce income. The outright disposition of such asset may give rise to a capital gain, provided it is “property” for the purposes of the ITA.⁴² It should be noted, however, that for the disposition of an intangible asset to occur on account of capital, it is generally required that there be an absolute transfer of exclusive rights.⁴³ For example, the absolute transfer of an exclusive right to reproduce a data compilation in Canada could likely qualify as such,⁴⁴ while the sale of a digital copy of a data compilation, would likely occur on income account where the taxpayer also retains the right to possess and on-sell that same data compilation. In the unlikely event that an amount would be paid to a taxpayer for data (as opposed to rights revolving around data) as part of a transaction occurring on account of capital, no capital gain may arise to the extent that data does not qualify as property.⁴⁵ This outcome appears improbable because an amount received on the sale of a digital copy of a data set would generally not result in the vendor losing anything, or in its income-generating apparatus being impaired (*i.e.* there may be no transfer of exclusive rights and no significant impact on another capital property of the taxpayer).

The disposition of property by a taxpayer that does not reside in Canada generally does not attract Canadian income tax unless the property qualifies as TCP.⁴⁶ TCP generally refers to immovable property located within Canada and property used in a business carried on “in Canada,” including goodwill and inventory.⁴⁷ It should be noted that there may be a deemed disposition of goodwill where data (as opposed to rights revolving around data) is disposed of.⁴⁸ Moreover, data may arguably not qualify as inventory, since inventory consists of “property,”⁴⁹ but rights revolving around data may conceivably qualify as such.⁵⁰

B. License, lease and grant of a right to use, or access to, data

From a commercial standpoint, a data supplier may collect and aggregate data to monetize such data without transferring exclusive rights thereto, which may be achieved through the licensing of intangibles or the grant of limited rights to use, or access to, data.

For the purposes of Part I, such transactions may generally give rise to income from a business or from property, depending on the surrounding circumstances. For non-residents, as highlighted above, taxation under Part I should only occur if such income arises from a

⁴² See s. 3 and ss. of 39(1) ITA. It should be noted however that para. 12(1)(g) ITA may apply to include in income proceeds of disposition received by a taxpayer on the sale of a property where the sale price is dependent on the production or use of the property.

⁴³ *Steinberg Inc. v. Minister of National Revenue*, [1992] 1 C.T.C. 2641, at para. 57.

⁴⁴ Provided that it is not sold as part of a scheme for profit-making, but simply the result of a capital asset being realized upon a sale.

⁴⁵ Where applicable, ss. 13(37) ITA may deem the receipt to arise from a deemed disposition of goodwill if, among other conditions, such receipt is not otherwise included in computing income or does not reduce the cost of a property and is not included in the computation of any gain or loss from a disposition of capital property. In such case, certain tax consequences, including a possible capital gain, may occur.

⁴⁶ Para. 2(3)(c) ITA.

⁴⁷ Ss. 248(1), “taxable Canadian property”.

⁴⁸ Ss. 13(37) ITA. *Supra* footnote 45.

⁴⁹ *Cestion Raynald Lavoie Inc. v. R.*, 2008 TCC 204, at para. 31; *Kruger Inc. v. R.*, 2016 FCA 186, at para. 84 [Kruger].

⁵⁰ Provided that such other rights meet other relevant conditions; see *Kruger*, *supra* note 49.

business carried on in Canada. Moreover, Part I would typically not apply to income from property derived by a non-resident (but the application of Part XIII, discussed below, should be considered).

As noted above, the fact that data is exploited through the grant of contractual rights does not preclude the finding that income arises from a business, as a business exists based on the level of activity involved in the pursuit of profit. However, where the level of activity of the taxpayer is very low, income may be considered to be derived from property. In most data-driven businesses, one could expect a certain degree of activity with respect to the collection, aggregation or analysis of data. Therefore, more often than not, income derived from these activities should be considered to arise from a business for the purposes of Part I. For non-residents, a further consideration would be to determine whether such business is being carried on “in Canada.”

An additional element to consider is whether an activity carried out without any human involvement (see for example, the Performance Data Analytics case study)⁵¹ can amount to a business. It is arguable that at least some human involvement is required for a business to exist for the purposes of the ITA. In *Dansereau v. R.*,⁵² the Federal Court of Appeal held that income from a business derives from “human activity rather than from the passive ownership of property.”⁵³ Therefore, where *all* the work is performed by a machine, by an algorithm or by a software, it is arguable that income derived thereof should arise from property, rather than from a business.⁵⁴ There is no clear guideline as to the level of human involvement that is required for a business to exist. Nevertheless, the level of activity required to support the finding that a business is being carried on has been held to be minimal.⁵⁵ Hence, it appears reasonable to assume that the level of human involvement required to conclude as to the existence of a business should be equally low.

Part XIII may apply where rights pertaining to data are granted and payments are made by a Canadian resident to a non-resident on account of those rights, whether they arise from a business, from property or from some other sources.

More particularly, withholding obligations may arise where a Canadian resident pays an amount to a non-resident:

- i. that is “rent,” “royalty,” or “similar payment,”⁵⁶ or
- ii. that is a payment described in subparagraphs 212(1)(d)(i) to (v) ITA (even if the payment does not qualify as rent, royalty or similar payment).^{57,58}

Any such payment is subject to a 25% withholding tax in Canada (although tax treaties may eliminate or reduce such rate, as discussed under Part 2).

There are however certain exclusions,⁵⁹ one of which is particularly relevant to the

⁵¹ The background of the “Performance Data Analytics” case study may be found in the general report.

⁵² 2001 FCA 305.

⁵³ *Id.* at para. 12; see also Stewart, *supra* note 20, at para. 38.

⁵⁴ Ormrod and Bain, *supra* note 38, at pp. 18:17 and 18:18.

⁵⁵ *Ollenberger v. R.*, 2013 FCA 74, at para. 28.

⁵⁶ As enumerated in the introductory wording of ss. 212(1)(d) ITA.

⁵⁷ *R. v. Farmparts Distributing Ltd.*, (1980) 80 D.T.C. 6157 (Federal Court of Appeal).

⁵⁸ Per s. 805 of the *Income Tax Regulations*, C.R.C., c. 945 (the “ITR”), Part XIII should generally not apply where the non-resident receiving such payment carries on a business in Canada and the payment may reasonably be attributed to the business carried on by the non-resident through a permanent establishment.

⁵⁹ Ss. 212(1)(d)(vi) to (xii) ITA.

present subject matter, namely a “royalty or a similar payment on or in respect of a copyright in respect of the production or reproduction of any literary, dramatic, musical or artistic work.”⁶⁰ The significance of this exclusion arises from the fact that a data compilation may be protected under the *Copyright Act* as a literary or artistic work.⁶¹ The application of this exclusion will thus depend on the protection, if any, afforded by the underlying copyright law. That said, this exclusion would only apply to payments for the right to “produce” or “reproduce” a literary or an artistic data compilation (*e.g.* a payment made by an end-user to acquire data to merely inform the decision-making process of its business would arguably not qualify for the exclusion).⁶²

Rents, royalties and similar payments

The terms “rent” and “royalty” are not defined in the ITA.⁶³ For the purposes of this report, it suffices to say that for a royalty payment to exist, the rights transferred should be somewhat limited and their *quantum* should generally be based on the degree of use, on the profits or output derived from their use or otherwise vary based on their productivity.⁶⁴ Note that not every license agreement should give rise to royalty payments for purposes of Part XIII.⁶⁵

The notion of “rent” would typically apply in the context of a lease agreement whereby the enjoyment of a property, or of a right, is granted in exchange for consideration (usually payable periodically).⁶⁶ Generally speaking, the concepts of licenses and royalties may appear more suited to the grant of rights in intangibles.⁶⁷

Lastly, the ambit of the notion of “similar payment” has not been clearly established by case law but would presumably encompass payments that possess the main qualities or attributes of rents or royalties without precisely qualifying as such.⁶⁸

Based on the foregoing, a key consideration is to determine whether a payment for the right to use or access data is based on the duration or degree of use or otherwise varies based on the productivity of data.

⁶⁰ Ss. 212(1)(d)(vi) ITA.

⁶¹ Scassa, *supra* note 5, at pp. 9 and 10.

⁶² CRA Views, Technical Interpretation, 2003-0018975.

⁶³ A thorough analysis of those terms is outside the scope of this report. For additional information, see Jinyan Li, Electronic Commerce Part 1, *supra* note 19; or Pierre Gonthier, Les déclinaisons de la notion de redevance selon l'impôt de la partie XIII : Redevance et concept élargi de redevance (2003) 51:5 Canadian Tax Journal 1835-1907 [Gonthier].

⁶⁴ Gonthier, *supra* note 63, at p. 1877; Jinyan Li, Electronic Commerce Part 1, *supra* note 19, at pp. 1109 and 1110.

⁶⁵ Gonthier, *supra* note 63, at p. 1877; See also Jinyan Li, Electronic Commerce Part 1, *supra* note 19, at p. 1110 *in fine*.

⁶⁶ For a more thorough discussion, see Jovicic, Seidner and Sorensen, *supra* note 34 at p. 22:3.

⁶⁷ Nonetheless, as pointed out by authors, see Jovicic, Seidner and Sorensen, *supra* note 34 at p. 22:6, there appears to be significant overlap and little differences between the two notions and since both fall within the purview of the preamble of para. 212(1)(d) ITA, the intricacies distinguishing them may generally be more academic than practical.

⁶⁸ Jovicic, Seidner and Sorensen, *supra* note 34, at p. 22:7; Gonthier, *supra* note 63, at p. 1878; *Hasbro Canada Inc. v. R.*, 98 D.T.C. 2129, at para. 22.

Subparagraphs 212(1)(d)(i) to (v) ITA

Subparagraphs 212(1)(d)(i) to (v) ITA also bring within the ambit of Part XIII payments that do not necessarily qualify as rents, royalties or similar payments.

Of particular interest,

- i. subparagraph 212(1)(d)(i) ITA applies to payments for the use of or for the right to use in Canada any property, invention, tradename, patent, trademark, design or model, plan, secret formula, process or other thing whatever; and
- ii. subparagraph 212(1)(d)(ii) ITA applies to payments for information concerning industrial, commercial or scientific experience where the total amount payable as consideration for that information is dependent in whole or in part on,
 - A. the use to be made of, or the benefit to be derived from, that information,
 - B. production or sales of goods or services, or
 - C. profits.

A payment for access to a data repository or for a data feed could fall within the ambit of either of the foregoing provisions, as data would presumably be included as “other thing whatever” under subparagraph 212(1)(d)(i) ITA and as “information” for the purposes of subparagraph 212(1)(d)(ii) ITA. In the case of subparagraph 212(1)(d)(i) ITA, it would also be required that the payment be made for the use of data “in Canada.” Were the rationale in *eBay Canada*⁶⁹ applicable for the purposes of subparagraph 212(1)(d)(i) ITA, Part XIII could have a potentially very broad reach. In the case of payments for information under subparagraph 212(1)(d)(ii) ITA, there is no requirement that anything be used in Canada, but an element of “dependency”⁷⁰ is required with respect to the amount payable as consideration for data.

The Data Brokers case study,⁷¹ provides with an example of a situation where a payment made by a customer likely would not qualify as “rent, royalty or similar payment,”⁷² but still be subject to withholding tax under subparagraph 212(1)(d)(i) ITA as a payment for the use in Canada of a thing. Nonetheless – and although uncertain – to the extent that, per the legal arrangement, the consideration is paid by the customer to acquire the possession of data,⁷³ it could be argued that the payment is a consideration for the acquisition of a digital good (*i.e.* a digital copy of the data set), rather than a payment for a right to use data.⁷⁴ In any case, for subparagraph 212(1)(d)(i) ITA to apply, it would also be required that the data set be used in Canada.⁷⁵

⁶⁹ *eBay Canada*, *supra* note 41 (*i.e.* data was considered as located in Canada, although it was stored on servers abroad); For a more thorough discussion of the *eBay Canada* case, see Ormrod and Bain, *supra* note 38, at p. 18:23.

⁷⁰ The “dependency” criterion refers to either of (A), (B) and (C) outlined above; see Ormrod and Bain, *supra* note 38, at p. 18:23.

⁷¹ The background of the “Data Brokers / Information Resellers” case study may be found in the general report.

⁷² This is so because the payment does not appear based on the degree of use or on the output to be derived from the use of the data set but would only depend on the size of data sets supplied and the degree of analytics applied.

⁷³ With any rights transferred being merely incidental thereof.

⁷⁴ ITTN-25, *supra* note 33.

⁷⁵ *eBay Canada*, *supra* note 41; where data remains stored on servers outside Canada, it remains uncertain whether it could still be viewed as being used in Canada.

C. *The provision of data as a service*

The digitalization of the economy has brought with it the rise of the service economy. Certain products formerly provided as tangible products are increasingly being provided in the form of services.⁷⁶ The digitalization of the economy and the rise of cloud computing have also created a demand for data-as-a-service.

The notion of “services” is not defined in the ITA so should receive its ordinary commercial sense.⁷⁷ The provision of a service evokes the notion of work and a “process” by which a product is delivered.⁷⁸ In other words, a service is “the work of the hand or the brain, valuable to the purchaser or user but not in themselves articles of trade or commerce”.⁷⁹

The Data Feeds case study⁸⁰ highlights a situation that may or may not qualify as a provision of services depending on the surrounding circumstances. On the one hand, a service may exist if the feed is a customized data feed such that Information Site Co pays for the process by which the data feed is created and delivered. On the other hand, if the data feed purchased by Information Site Co is a mass-produced or off-the-shelf data feed that Animal Data Co has created to be sold to multiple customers, the fees likely would not arise from the provision of a service. In both cases, the source of income for the purposes of Part I would nonetheless remain a business (either a service business or some other type of business).

Ascertaining the boundaries of the notion of services is relevant to determine whether a payment is subject to withholding tax under paragraph 153(1)(g) ITA and section 105 ITR, which apply where an amount is paid to a non-resident for services rendered in Canada (whether payable by a Canadian resident or a non-resident). Where applicable, these provisions give rise to a non-final⁸¹ withholding tax of 15% of the gross payment.⁸²

In the context of digital transactions, the place where a service is being rendered may be difficult to determine. In many cases, services will be provided from abroad through digital means without any need for a physical presence in Canada. Based on past positions of the CRA, it appears that for a service to be rendered in Canada, some physical presence in Canada would generally be required.⁸³ As noted earlier, locating a service business requires an inquiry as to where the profits emanate in substance. Given that profit-generating activities may be closely linked to Canada without any tangible presence there, it does not appear inconceivable that profits from the provision of services may be considered to emanate from Canada even in the absence of a physical presence.

It should also be noted that Part XIII may apply to services where the conditions of subparagraph 212(1)(d)(iii) ITA are met.⁸⁴ For example, in the Data Feeds case study,

⁷⁶ Software-as-a-service being a perfect example of this trend.

⁷⁷ *Ogden Palladium Services (Canada) Inc. v. R.*, 2001 D.T.C. 345, at paras. 30 and 31 affirmed in 2002 FCA 336.

⁷⁸ *Id.*, at paras. 26, 29 and 32.

⁷⁹ *Id.*, at para. 31.

⁸⁰ The background of the “Data Feeds” case study may be found in the general report.

⁸¹ Meaning that the tax withheld is on account of potential tax liability under Part I.

⁸² An additional 9% is imposed on services rendered in the province of Québec.

⁸³ E-Commerce and Regulation 105, Corporate Tax Center Newsletter Series, 19 March 2013 (consulted online – Taxnet pro), Ryan Keey.

⁸⁴ The conditions of that provision are similar to that of subpara. 212(1)(d)(ii) ITA discussed earlier, but the application of subpara. 212(1)(d)(iii) ITA excludes payments made for services performed in connection with the sale of property or the negotiation of a contract.

subparagraph 212(1)(d)(iii) ITA could apply to the payment made by a Canadian resident Information Site Co to a non-resident Animal Data if the *quantum* of the payment is determined based on the benefit derived from the data feed.

Part Two: Application of treaty principles

2.1. General overview

Canada has a broad treaty network with 94 tax conventions in force, most of which are based on the OECD Model Convention.

For a taxpayer to claim the benefit of a Canadian treaty, it must first establish that it is a “resident” of the relevant country, which has been defined for these purposes as being subject to “as comprehensive a tax liability as is imposed by a state” by the Supreme Court of Canada.⁸⁵

Concerned with treaty shopping and abuse of tax treaties, Canada had developed through administrative guidelines the concept of “residence of convenience” that would have allowed the tax authorities to deny treaty benefits to an otherwise resident person where such person resided in the relevant country to gain treaty benefits without establishing “material economic nexus” in that country.⁸⁶ However, the CRA has not been successful in challenging the application of treaties on that basis⁸⁷ and has not alluded to the concept of “resident of convenience” since then.⁸⁸

Canada deposited its instrument of ratification of the OECD-sponsored “Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting” (“MLI”) in 2019, making the principal purpose test (“PPT”) its treaty-based defense against treaty abuse and designated 84 of its tax treaties as “covered tax agreements”.⁸⁹ Canada has also announced its intention to negotiate, on a bilateral basis where appropriate, detailed limitation on benefit provisions either in addition to or in lieu of the PPT. Canada’s Department of Finance and the CRA have so far been reluctant to provide any meaningful guidance regarding the intended scope of the PPT from their perspective.⁹⁰

The interpretation of the PPT and the circumstance in which Canada will apply it are

⁸⁵ *Crown Forest Industries Ltd. v. Canada*, [1995] 2 S.C.R. 802.

⁸⁶ CRA, Income Tax Technical News #35, 26 February 2002 (archived); CRA, Technical Interpretation 2007-0263441E5, May 19, 2009.

⁸⁷ *MIL (Investments) S.A. v. Canada*, 2007 D.T.C. 5437 (FCA), *Garron Family Trust (Trustee of) v. R.*, 2010 FCA 309 (affirmed on other grounds by the SCC, 2012 SCC 14) and *Canada v. Alta Energy Luxembourg S.A.R.L.*, 2021 SCC 49 [Alta Energy].

⁸⁸ The courts have generally granted the benefit of a tax convention even where minimal substance was established in the country of residence: *Canada v. Prévost Car Inc.*, 2009 FCA 57, *Velcro Canada Inc. v. Canada*, 2012 T.C.C. 57. See also *Alta Energy*, *supra* note 87.

⁸⁹ Notably excluding Brazil, the United States of America (which has not signed the MLI), Germany and Switzerland.

⁹⁰ For a detailed analysis of the PPT, see D.G. Duff, *Tax Treaty Abuse and the Principal Purpose Test – Part 2*, 66 Can. Tax J. 4, pp 947-1011 (2018). See also N. Boidman & M.N. Kandeve, *Canada enacts Multilateral Instrument: What Happens Next?*, 95 Tax Notes Int’l 4, p. 315 (July 22, 2019) and M.N. Kandeve & J.J. Lennard, *The OECD Multilateral Instrument: a Canadian Perspective on the Principle Purpose Test*, *Tax Treaty Monitor*, 174(1) Bulletin for International Taxation (ibfd.org, Jan. 2020).

uncertain but the PPT is likely to affect the application of Canada's treaties. Enterprises established in low-tax jurisdictions with little substance may not be able to benefit from an exemption on business income earned in Canada even if they do not have a PE in Canada or benefit from a reduced or nil withholding tax rate on royalty income received from Canadian resident payors in the context of big data transactions.

As discussed in Part 1, big data transactions generally will result from a Canadian domestic tax perspective in (i) business income in the case of services or sale of data on income account, (ii) capital gain in the case of sale of data on capital account, and (iii) "royalty" income in the case of payments for the use of property in Canada or certain specific services.

2.2. Business income

Where it has been established that a non-resident of Canada carries on a business in Canada and provided that the non-resident can rely on an applicable treaty, it should not be subject to tax in Canada if it does not have a PE in Canada, subject to the application of article 12 of the OECD Model, discussed below.

In the context of big data transactions and assuming that the data provider does not otherwise have a fixed place of business in Canada, the issue is likely to turn on whether the data provider has servers in Canada. Selling data or allowing access to data to Canadian customers through a website will not, in and of itself, amount to a PE in Canada even if the website is accessible from Canada "because a website merely consists of software or electronic data, is not tangible property and therefore does not have a location".⁹¹

However, if the non-resident provider uses servers or data sensors in Canada to carry on its business, it could be considered as having a PE in Canada, provided that it has control over the server/sensor,⁹² whether it is legal or physical control.⁹³ This is consistent with the OECD Commentary, which also emphasizes the importance of control by stating that the server must be "at the disposal of" the taxpayer.⁹⁴ Where the data sensors are installed on equipment owned by third-parties and the non-resident does not have access to the sensors, it is difficult to argue that the non-resident has control over the sensors.

A non-resident of Canada using a Canadian internet or data hosting service provider in Canada should also not have a PE in Canada, to the extent that the service provider is considered an independent agent for purposes of Canada's treaties and, as mentioned above, that the non-resident does not have physical control of the servers used by the service provider.⁹⁵ This would presumably be true even if the non-resident could direct the service

⁹¹ OECD Commentary at para. 123, in respect of which Canada did not express any observation or objection, and CRA, GST/HST Technical Information Bulletin B-090, July 2002.

⁹² *Canada v. Dudney*, 2000 D.T.C. 6169 (FCA) (*Dudney* did not involve the data industry).

⁹³ CRA, Income Tax Technical News #22, 1 November 2002 and CRA, Income Tax Technical News #33, 16 September 2005.

⁹⁴ OECD Commentary at para. 124. Note that the OECD Commentary can be used as an interpretative tool even if the treaty being analyzed predates the Commentary. See *Prévost Car Inc. v. Canada*, 2009 D.T.C. 5053 (FCA) but the Supreme Court of Canada made clear that OECD materials (in that case the OECD Transfer Pricing Guidelines) do not "govern" like a (Canadian) statute in the transfer pricing case of *Canada v. GlaxoSmithKline Inc.*, 2012 SCC 52.

⁹⁵ CRA, Technical Interpretation 2012-0432141R3, 2012.

provider to use a specific server at a specific location⁹⁶ or if the service provider was related to the non-resident.⁹⁷ Articles 12 and 13 of the MLI, which narrow the independent agent and ancillary activities exceptions, have not been adopted by Canada.

The same reasoning should apply to a non-resident using a data center located in Canada, whether such data center is owned by an affiliate of the non-resident or an unrelated third-party.

In the case where the servers or data centers are operated directly by the non-resident in Canada, the latter could be considered as having a permanent establishment in Canada, unless it can be established that the activities carried out by the non-resident are preparatory or auxiliary in nature.⁹⁸

Based on the OECD Commentary, an activity is auxiliary or preparatory if it does not form an essential and significant part of the activity of the taxpayer. Where the general purpose of a fixed place is one which is identical to the general purpose of the whole enterprise, the non-resident cannot rely on the auxiliary or preparatory exception.⁹⁹

In the case of a non-resident gathering data in respect of Canadian customers through a server or data sensor (assuming that such server or data sensor is a fixed place of business), which data is then processed, organized and structured, it is arguable that the gathering of data is “preparatory” in nature and should not be considered a fixed place of business.¹⁰⁰ It would be more difficult to argue that data gathering is “auxiliary” since the data is essential to the business carried on by the non-resident, especially, in the case of a server, if its location is key, *i.e.* if a server located elsewhere would not provide timely or reliable data (in the case of data sensors, it is arguable that location is always significant).¹⁰¹

In the case where the server located in Canada is used to sell data sets and the sale contract is made, payment is processed, and data sets are made available, through that server, it would be difficult to rely on the preparatory or auxiliary exception.¹⁰²

If a non-resident is considered to carry on business in Canada through a PE and regularly sells data sets through that PE, be it a server or data center, a portion of the profits arising from such sales would be taxable in Canada in accordance with article 7 of the OECD Model. The same would be true of a non-resident providing access to data through a data center located in Canada. Based on Canada’s treaties, the profit attributable to the PE generally must be established as if the PE was a separate and independent enterprise, taking into account functions performed, assets used and risks assumed. This reflects the recently developed “authorized OECD allocation”.

As noted by the OECD on various occasions, these principles are difficult to apply in the context of the digital economy because they generally imply the identification of significant

⁹⁶ OECD Commentary, at para. 5-124.

⁹⁷ OECD Model Convention, art. 5(6) and 5(7); CRA, Technical Interpretation 2012-0432141R3, 2012.

⁹⁸ OECD Commentary, at para. 5-128 to 5-131.

⁹⁹ OECD Commentary at para. 5-59.

¹⁰⁰ OECD Commentary at para. 5-128.

¹⁰¹ OECD Commentary at para. 5-129.

¹⁰² OECD Commentary at para. 5-130.

people functions, and various solutions are envisaged to address this issue.¹⁰³

Considering, as noted above, that the CRA generally follows the OECD approach regarding the attribution of profits to PEs,¹⁰⁴ including income from e-commerce businesses,¹⁰⁵ and that Canada is an active member of the OECD, it must be concluded that Canada recognizes that it may not be able to allocate profits arising from data collection or data sales earned by a non-resident, even if such non-resident has a PE in Canada through a server or sensors.

A non-resident of Canada selling data sets or other rights in data on capital account can only be subject to tax in Canada if such property is personal property used in a business carried on in Canada.¹⁰⁶ However, in accordance with the OECD Model, Canada does not retain its right to tax such a gain unless the property is forming part of a PE. In the context of big data transactions where the Canadian presence of the non-resident is limited to a server or sensors in Canada, it is unlikely that Canada would be able to tax any capital gain resulting from the sale of data sets or other rights in data. It should also be noted that Canada retains its right to tax gains from the alienation of intangible property where the seller is US resident and the consideration for the sale is dependent on the productivity, use or subsequent disposition of such intangible property.¹⁰⁷

A non-resident of Canada that carries on a business in Canada and that does not have a PE in Canada or that has a PE to which no income is attributable can nonetheless be subject to tax in Canada under Part XIII if the item of business income amounts to “rent, royalty or similar payment.”

2.3. Royalties¹⁰⁸

Unlike the ITA, Canadian tax treaties include a definition of “royalties”. While that definition varies from one treaty to another, it generally covers payments made under a license and compensation paid in respect of wrongful infringement, but does not include a payment

¹⁰³ See for example, OECD (2015), *Addressing the Tax Challenges of the Digital Economy*, Action 1 – 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris; OECD (2018), *Tax Challenges Arising from Digitalisation – Interim Report 2018*, Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris; OECD (2019), *Addressing the Tax Challenges of the Digital Economy*, Public Consultation Document, OECD/G20 Base Erosion, Profit Shifting Project, OECD Publishing, Paris; OECD (2019), *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy*, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris; OECD (2020), *Secretariat Proposal for a “Unified Approach” under Pillar One*, Public Consultation Document, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris; and OECD (2020), *Tax Challenges Arising from Digitalisation – Report on Pillar One Blue Print*, Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris.

¹⁰⁴ There is however one exception: contrary to the OECD approach, the CRA’s longstanding position has been that notional expenses may not be factored into the computation of profits attributable to a PE based on *Cudd Pressure Control Inc v R*, 98 DTC 6630 (FCA). See CRA, Technical Interpretation 2016-0642061C6, 26 May 2016.

¹⁰⁵ CRA, Technical Interpretation 2008-0279141E5, 23 June 2008.

¹⁰⁶ Definition of “taxable Canadian property”, ss. 248(1) ITA at para. (b).

¹⁰⁷ See definition of “royalties” under the Canada-US tax treaty (art. XII(4)). The same rule applies to Canada’s treaties with Brazil and India.

¹⁰⁸ The following discussion assumes the payment in question would be subject to tax under Part XIII, as explained in Part 1.

for the transfer of the property itself.¹⁰⁹ Certain treaties also preserve Canada's rights to tax fees for technical services that are ancillary or connected to royalties paid by a Canadian resident, even if such services are rendered outside of Canada.¹¹⁰ In addition and contrary to the OECD Model, Canada's treaties generally preserve Canada's right to tax Canadian-sourced royalties, subject to specific exemptions or rate reductions. In its OECD-based treaties, Canada will generally exempt copyrights royalties (and other like payments) in respect of the production or reproduction of any literary, dramatic, musical or artistic work, payment for the use of computer software and payments for the use of patent and information concerning industrial, commercial or scientific experience.

Payments made by a Canadian resident to have continuous access to data feeds or data bases might be considered as royalties for purposes of Canada's treaties (as a payment for the right to use copyrighted information, a design, model, plan, secret formula or process) but might be exempt from withholding tax, based on the above-enumerated exceptions.

Payments made by a Canadian resident to a service provider using sensors installed on the Canadian resident's equipment should not be treated as royalties for treaty purposes, even where the definition of royalties under the applicable treaty refers to the "use or right to use industrial, commercial or scientific equipment" as the Canadian customer does not have access to the data so gathered and cannot itself use the sensors.¹¹¹ However, if a Canadian resident pays a non-resident to access raw or processed data, through a database or otherwise, it could be seen as paying a royalty for purposes of Canada's treaties.

That said, based on the OECD Commentary, if the grant of a limited right to copy a computer program is ancillary to what is in essence the sale of software, the nature of the payment should not be considered a royalty.¹¹² By analogy, if a Canadian resident has access to data but such data is ancillary to consulting or other services, one would argue that the fees payable in respect thereof should not be treated as royalties for treaty purposes but as a payment for service. That said, it is unclear whether the CRA would agree with such a position, considering that it concluded on two occasions that the payment for production or reproduction of certain copyrighted work for personal home use was a copyright royalty for purposes of Canada's treaties and therefore would be subject to withholding tax in Canada unless a specific exemption applies.¹¹³ This, however, seems not only to be in disagreement with the OECD Commentary, to which the CRA generally adheres and in respect of which no reserve has been logged, but also with a decision of the Federal Court of Appeal.¹¹⁴

As seen in Part 1, many payments that are not "royalties" per se are nonetheless caught by the broad wording of paragraph 212(1)(d) ITA. Where a payment is not a royalty under a treaty, the payment is generally considered as business income and is only subject to tax in Canada if the non-resident has a PE in Canada, as discussed above. For example, in the case of a Canadian resident advertising on a US website and paying a fee based on the number of clicks generated by the US website, the CRA concluded that the fee was subject to withholding tax under domestic rules, that such a fee would not be exempt under article XII

¹⁰⁹ See, however, the Canada-US tax treaty, in which the definition of royalties includes a gain on the alienation of intangible property or rights described in the definition of royalties, to the extent that such gain is contingent on the productivity, use or subsequent disposition of such right.

¹¹⁰ See for example, Canada's treaties with Brazil, India, Cameroon, Vietnam, Zimbabwe, Mongolia and Tanzania.

¹¹¹ OECD Commentary, at para. 12-9.1.

¹¹² OECD Commentary at para. 12-12.2.

¹¹³ CRA, Ruling 2011-0416891R3, 2011 and technical interpretation 2010-0374421E5, 22 February 2011.

¹¹⁴ *Canada v. Dawn's Place*, 2006 FCA 349.

of the Canada-US tax treaty because the fee was paid for services rather than the use of or the right to use any of the items described in article XII but would be exempt under article VII to the extent that the US payee did not have a PE in Canada.¹¹⁵

Canada's tax treaties (and domestic law) do not make a distinction between cash royalty payments and other considerations. In other words, a payment in kind of royalties would nonetheless be subject to withholding tax unless a specific exclusion applies.

Part Three: Transfer pricing

3.1. General overview

Canada's transfer pricing regime abides by the arm's length principle. As a result, the terms and conditions agreed to between Canadian taxpayers and foreign related parties for the transfer of tangible property and intangible property, the provision of services, or debt/equity transactions should reflect those that would have been established had the parties been dealing with each other at arm's length.¹¹⁶ The Canadian regime is dualistic in nature in that the CRA can:

- i. adjust the terms or conditions of controlled transactions (or series of transactions) (*i.e.*, standard transfer pricing adjustment rules);¹¹⁷ or
- ii. adjust the controlled transactions (or series of transactions) themselves, but only to the extent that the parties entered into a transaction that would not have been entered into between parties dealing at arm's length or when it is reasonable to consider that the controlled transactions were not entered into primarily for *bona fide* purposes other than to obtain a tax benefit (*i.e.*, re-characterization rule).¹¹⁸

Taxpayers that do not comply with Canada's transfer pricing rules can be subject to steep penalties¹¹⁹ unless they can demonstrate that "reasonable efforts" have been made to determine and use arm's length transfer prices, including the preparation of transfer pricing documentation and the submission of any relevant documentation within three months of a formal request by the CRA.¹²⁰

In its application of the arm's length principle, Canada generally follows the OECD *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (the "OECD Guidelines").^{121,122} The OECD Guidelines specify five transfer pricing methods that can be applied to test the arm's-length nature of a transaction, regrouped into two categories: the

¹¹⁵ CRA, technical interpretation 2011-0416181E5, 27 August 2012.

¹¹⁶ S. 247 ITA.

¹¹⁷ Paras. 247(2)(a) and (c) ITA.

¹¹⁸ Paras. 247(2)(b) and (d) ITA.

¹¹⁹ The penalty is equal to 10% of any transfer pricing adjustment if the adjustment is greater than the lesser of 10% of the taxpayers' gross revenue for the year and C\$5,000,000 as per ss. 247(3) ITA.

¹²⁰ Ss. 247(4) ITA.

¹²¹ Organisation for Economic Co-Operation and Development. (2017). *OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*. France: OECD Publishing.

¹²² Canada Revenue Agency. (2012). *Transfer Pricing Memorandum 14 – 2010 Update of the OECD Transfer Pricing Guidelines*. <http://www.cra-arc.gc.ca/tx/nnrsdnts/cmmn/trns/tpm14-eng.html>.

traditional transaction methods and the transactional profit methods. For Canadian income tax purposes, where traditional transaction methods and transactional profit methods can be applied in an “equally reliable manner,” traditional transaction methods are favored. Ultimately, taxpayers should select the transfer pricing method that yields the most reliable estimate of an arm’s length result based on the facts and circumstances underlying the controlled transaction.

3.2. Application of transfer pricing principles

There is no specified framework for the transfer pricing of data in Canada, but data should fall under the definition of “intangible” in the OECD Guidelines.¹²³

The transfer pricing analysis of data transactions will depend on the nature of the intangible asset, the functions and risks undertaken by the parties, and the manner in which the asset contributes to profits within the group. Notably, the OECD Guidelines emphasize the importance of the development, enhancement, maintenance, protection and exploitation (DEMPE) functions relating to the intangibles, and the control of the economically significant risks associated with these activities. The entity or entities performing these functions are then entitled to profits resulting from the exploitation of the intangibles.

The supply chain for big data may be broadly summarized as follows: (1) data generation, (2) data acquisition or data aggregation, (3) data storage, and (4) data analysis (including data mining). This implies that data is initially generated as individual pieces of information, collected and aggregated with other pieces of information, stored and processed, and finally analyzed to produce some valuable output, which may be used to inform decision-making or as an input into an existing service or product.

From a transfer pricing perspective, most activities within the first three elements are generally considered routine in nature and would not be expected to command excess profits in the market due to competition. That said, the data itself may be valuable as a result of exclusivity or other factors. Conversely, significant value may be created through analytics and other techniques applied to aggregate data sets. The value derived from the data supply chain in excess of routine profits attributable to the activities in the first three steps may be interpreted as arising from an “intangible” as defined in the OECD Guidelines.

Below is an overview of the typical transfer pricing methodologies applied to transactions involving intangibles such as data:

- i. *License of intangibles*: The comparable uncontrolled price (CUP) method is widely used amongst Canadian taxpayers in determining arm’s length prices for the licensing of intangibles. Uses of the CUP method for setting reasonable royalty rates is supported by Canadian case law, and decisions of foreign courts cited with approval in Canada.¹²⁴
- ii. *Sale of intangibles*: In terms of an outright sale of intangibles, generally there is no directly comparable market price. The most common alternative methods used in Canada in this case are the various market, income, or cost approaches used in the area of business valuation.

¹²³ OECD Guidelines, para. 6.6.

¹²⁴ For example: *GlaxoSmithKline Inc. v. the Queen*: 2008 TCC 324, 2010 FCA 201, 2012 SCC 52.

- iii. *Contract services*: The most common method used in the pricing of contract services for the development of intangibles (or other activities relating to intangibles) is the cost-plus method. Where a charge is justified, service suppliers would usually expect to recover their costs plus an element of profit.
- iv. *Joint development or cost contribution arrangement (CCA)*: When more than one party contributes to the development of valuable and unique intangibles, and no reliable comparable transactions are available, the profit split method may be used. In a CCA, participants establish a basis for contributing to the cost of producing, developing or acquiring intangibles, in proportion to the benefits that each participant is reasonably expected to derive from the property as a result of the arrangement. Each participant's share of the benefits may be determined by estimating the anticipated additional income expected or costs savings resulting from their participation in the CCA.

The methodologies selected should be driven by the facts and circumstances surrounding the transaction. In the absence of specific domestic administrative guidance, the OECD Guidelines is the best source of guidance for transfer pricing analyses of big data transactions in Canada.

Part Four: Special regimes

4.1. Digital services tax

While a digital services tax ("DST") is certainly one of the avenues considered by the OECD to address issues raised by the digital economy, it is currently discouraged by the OECD as a unilateral measure.¹²⁵ Several countries have nonetheless adopted a DST but have committed to remove it upon the enactment of a multilateral agreement.¹²⁶ The OECD has indicated that DSTs "are generally designed to apply to the gross revenues from the provision of certain digital services and so would not be considered an income tax."¹²⁷

The DST, as exposed by the OECD and as adopted so far by some countries, is not a typical value-added tax as an input tax credit cannot be claimed by the recipient if paid in the context of commercial activities.

Canada has not adopted a DST per se but tabled proposed legislation targeting e-commerce on 30 November 2020. The proposals, discussed in more detail in Part 5 below, extend the application of the Goods and Services Tax ("GST") to suppliers that have no physical presence in Canada if they sell property (including digital) or services to Canadian consumers (the "Proposed Rules").¹²⁸

The government had originally promised to impose a 3% DST on the Canadian

¹²⁵ OECD, News release, *International community renews commitment to address tax challenges from digitalisation of the economy* (12 October 2020).

¹²⁶ For instance, in France: Art. 1 of the *LOI n° 2019-759 du 24 juillet 2019 portant création d'une taxe sur les services numériques et modification de la trajectoire de baisse de l'impôt sur les sociétés*; in Austria: Federal Ministry Republic of Austria Finance, *Digital Tax Act 2020*, online: <https://www.bmf.gv.at/en/topics/taxation/digital-tax-act.html>

¹²⁷ OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint* (13 October 2020), p. 51.

¹²⁸ Canada, Department of Finance, *Fall Economic Statement 2020*, "Legislative Proposals to Amend the Excise Tax Act", November 30, 2020.

revenues of international digital corporations from targeted advertising services and digital intermediation services. The DST, if it had been enacted, would have applied to digital companies with worldwide revenues of minimum C\$1 billion and Canadian revenues over C\$40 million. The DST was similar in its concept to the French DST.

4.2. Incentives

As one can expect, there are no specific incentives for big data in Canada. However, certain incentives could apply to businesses involved in this area: scientific research & experimental development (SR&ED) tax credits are available at the federal and provincial levels, and the province of Québec also offers a tax credit for the development of e-businesses and an “IP box” regime.

The SR&ED program includes a rigorous regulatory regime, which means claimants need to focus on thorough eligibility assessments and substantiation of claims. To be entitled to a credit, one must demonstrate that there is technological uncertainty, and that the work being performed includes systematic investigation and will achieve technological advancement. We understand that in practice the governments have been somewhat reluctant to grant SR&ED credits to big data businesses under the pretense that big data involves standard development practices and therefore may not satisfy the uncertainty criteria. Where the eligibility conditions are met, a taxpayer is entitled to a federal 15% non-refundable tax credit on qualified expenditures and certain Canadian-controlled private corporations are eligible for a 35% refundable credit on the first \$3 million of qualified expenditures. Provincial tax credits, which may also be refundable, range from 3.5% to 30%.

The Québec e-business credit¹²⁹ is much broader than the SR&ED credit as it is available to standard development and in certain circumstances can be combined with the provincial SR&ED credit. The e-business credit can apply to IT businesses developing technologies or offering consulting services related to technologies, to the extent those technologies are incorporating the internet or other network technologies and are transforming standard business processes, such as human resources, finance, procurement, accounting, etc. To be entitled to the credit, a corporation need not be resident in Canada as long as the relevant activities are carried out in an establishment in Québec and the corporation maintains at all times a minimum of six eligible full-time employees in Québec. Where the conditions are satisfied, the claimant is entitled to a 30% credit on eligible salaries not exceeding \$83,333 per employee, which is comprised of a 24% refundable component and a 6% non-refundable component. Any unused non-refundable component may be, under conditions, carried forward up to 20 years. The credit would generally apply to salaries paid to engineers, developers, data scientists, UI/UX designers and other employees performing technical functions.

Finally, effective January 2021, the Québec corporate tax rate will be reduced to 2% (from 11.5%) on patent royalties, resulting in a combined federal/Quebec tax rate of 17%, which will be one of the lowest rates in Canada and the United States.¹³⁰ The rate reduction is also available for up to 75% of profits from other forms of IP-related income. To be eligible,

¹²⁹ S. 1029.8.36.0.3.79 and following of the *Taxation Act* (Québec), CQLR c I-3.

¹³⁰ No proposed legislation has been tabled as of yet. The new measures are described in s. 1.3 of the 2020-2021 Québec Budget, Additional Information <http://www.budget.finances.gouv.qc.ca/budget/2020-2021/en/index.asp>.

the corporation must have carried out SR&ED in Québec and the IP being commercialized must result in whole or in part from SR&ED carried out in Québec. It would appear that the latter SR&ED need not be (the same as) the former SR&ED. If that is correct, the proposed IP Box rules would not preclude the purchase of IP, contrary to the guidelines released by the OECD in connection with BEPS Action 5.¹³¹

4.3. Barter treatment

The CRA describes a barter transaction as one where “two persons agree to a reciprocal exchange of goods or services and carry out that exchange usually without using money.”¹³² There are no specific provisions in the ITA dealing with bartering so the general computation rules described under Part 1 should apply. In terms of valuation, the CRA generally takes the position that it is the amount that the provider would normally have charged that should be brought into its income as opposed to the value of the thing received in exchange,¹³³ unless the value cannot be readily ascertained, in which case it is the value of the thing received that should be brought into income, provided that the parties are dealing at arm's length.¹³⁴

For the treatment of barter transactions from a sales tax perspective, see Part 5: Indirect Taxes.

Part Five: Indirect taxes

The federally levied GST is a value added tax on the supply of most goods and services purchased in Canada.¹³⁵ A “supply” means, in general terms, the provision of property or a service in any manner. The supplier acts as agent for the Crown and must collect GST from the recipient.¹³⁶ However, the system is meant to only tax consumption in Canada and, therefore, GST paid may be claimed as an input tax credit (“ITC”) by any person that is registered for GST purposes, to the extent the GST is incurred in the course of its commercial activities.¹³⁷

Supplies made in certain Canadian provinces are subject to Harmonized Sales Tax (“HST”), which is comprised of the 5% GST plus a provincial component determined by the province (forming a unique HST rate).¹³⁸ The HST is identical in its application to the GST and is fully administered by the CRA. A person registered for GST purposes is automatically registered for HST purposes.

Other provinces have their specific provincial regimes. British Columbia and

¹³¹ Michael Kandeov and Nathan Boidman, Québec Proposes North America's First IP Box, Tax Notes International, Vol. 98, No. 13, 20 June 2020.

¹³² CRA, Interpretation Bulletin IT-490, Barter Transactions.

¹³³ *Id.*, at para. 5.

¹³⁴ *Id.*, at para. 8.

¹³⁵ Part IX of the *Excise Tax Act*, R.S.C., 1985, c. E-15 [ETA].

¹³⁶ Ss. 221(1) ETA.

¹³⁷ Ss. 169(1) ETA.

¹³⁸ Ss. 165(2) ETA, resulting in a HST rate of 13% in Ontario, and 15% in New Brunswick, Newfoundland and Labrador, Nova Scotia and Prince Edward Island.

Saskatchewan apply a provincial sales tax ("PST") of 7% and 6%, respectively. Manitoba imposes a retail sales tax ("RST") of 7%, and Québec adopted the Québec sales tax ("QST") of 9.975%. These provincial regimes (PST, RST and QST) all require a separate registration with the provincial authorities. The QST regime is a value-added system that is mostly harmonized with the GST, while the PST and RST generally only apply to the end-purchaser of goods (and a growing number of intangibles and services).

Alberta is the only Canadian province to have no provincial sales tax, nor to have harmonized to the GST system.

Our comments below are limited to GST/HST (and, *mutatis mutandis*, to the QST).

5.1. Registration

Every person who makes a taxable supply in Canada in the course of a commercial activity engaged in by the person in Canada is required to register for GST/HST purposes, except where, notably, the person is a non-resident person that does not carry-on business in Canada (and based on the Proposed Rules, does not supply property or services to Canadian recipients).¹³⁹

Traditionally, when a person is a non-resident of Canada, a two-prong test must be made in order to determine its potential obligations for GST/HST purposes: it must be determined (1) whether the person has a PE in Canada through which it carries on its activities and, if not, (2) whether the person carries on a business in Canada for GST/HST purposes.¹⁴⁰

The definition of PE contained in the ETA is generally aligned with international principles.¹⁴¹ If a non-resident person has a PE in Canada, it will be considered to be resident in Canada in respect of its activities carried on through that PE for GST/HST purposes¹⁴² and will be required to register for GST/HST purposes.¹⁴³ The CRA has indicated that a non-resident person's website should not constitute a PE for GST/HST purposes. However, a server on which a website is stored, if it is operated and owned or leased by a non-resident, may constitute a PE.¹⁴⁴

Should the non-resident person not have a PE in Canada, one must determine whether the person carries on business in Canada to determine whether it must register for GST/HST purposes.¹⁴⁵ The determination of whether a non-resident carries on business in Canada is made in accordance with common law principles, which emphasize the place where the profit-generating contracts or transactions are entered into and the location of operations from which the profits arise. As we noted in Part 1 and 2, these principles are somewhat difficult to apply to big data.

¹³⁹ Ss. 240(1) ETA and proposed s. 211.1 and following of the ETA.

¹⁴⁰ See notably: CRA, Policy Statement P-051R2 and CRA, GST/HST Ruling 149984 Carrying on Business in Canada (18 February 2013); CRA, GST Headquarter Letter 121400 Non-resident Registration (23 February 2010); CRA, GST Headquarter Letter 44598 Carrying on Business in Canada (27 January 2006).

¹⁴¹ Ss. 123(1) ETA.

¹⁴² Ss. 132(2) ETA.

¹⁴³ Unless it is a small supplier as defined in s. 148 ETA, that is a person who, with its associates, is making less than \$30,000 of taxable supplies worldwide on a yearly basis.

¹⁴⁴ CRA, GST/HST Technical Information Bulletin B-090, July 2002.

¹⁴⁵ It should be noted that where a non-resident person does not have a PE in Canada, it is required to provide and maintain adequate security to register, see ss. 240(6) ETA.

As mentioned above, the Proposed Rules extend the registration requirements to non-residents that have no physical presence in Canada but sell digital products or services to “specified Canadian recipients” (defined for these purposes as any entity or person that is not registered for GST/HST under the general GST/HST regime). The proposed rules are similar to those enacted by the province of Québec in 2019 in respect of the QST.

5.2. Characterization of supplies

As it was the case in the income tax context, the characterization of a supply is crucial for indirect tax purposes, as it will impact, *inter alia*, the place of supply rules (*i.e.*, where a supply is made), the applicable tax rate, the timing of the tax liability, and how tax is collected.¹⁴⁶

Where a person makes supplies involving the analysis of large data sets to transform them into value, the person is supplying intangible personal property (“IPP”) or a service, and not tangible personal property (“TPP”).¹⁴⁷ Moreover, data analytics may be the supply itself, while it may also be an input for a supply of IPP, service, or even TPP.

In Canada, the ETA includes specific definitions of “property”, “personal property” and “service”.¹⁴⁸ Usually, if no property rights are being transferred, there should be a supply of service rather than a supply of IPP.¹⁴⁹ The CRA lists factors indicative of IPP and those that would indicate a service in the context of supplies by electronic means in its Bulletin B-090.¹⁵⁰

Where a data broker provides access to data sets to its clients without transferring property rights in respect of the data (*i.e.* the customers are not allowed to on-sell the data), it would appear that the data broker would be supplying IPP rather than a service. If a supplier develops data analytics tools to better its services and perform specific work made to measure based on the clients’ specific requests, it would be regarded as making a supply of services.

For illustrative purposes, the CRA has characterized the following supplies as:¹⁵¹

- TPP:
 - “off the shelf” software delivered on a tangible medium;
- IPP:
 - software supplied electronically (downloaded as a digitized product); and
 - a right of access to pre-existing technical documentation or access to a database;
- Service:
 - programming which involves modifying existing software (client owned software) or programming from scratch a customized solution where the client owns the software upon completion; and
 - advising clients on their hardware and software needs.

Where a taxpayer analyzes large data sets in order to transform data into value for another person, it is either supplying IPP or a service. Indeed, in line with the OECD characterisation

¹⁴⁶ Mike Nienhuis, *Tax Implications for Non-Residents Conducting E-Commerce in Canada*, Canadian Journal of Law and Technology (November 2011).

¹⁴⁷ OECD, *Tax Treaty Characterisation Issues Arising from E-Commerce* (1 February 2001).

¹⁴⁸ See definitions of “property”, “personal property”, and “service” in ss. 123(1) ETA.

¹⁴⁹ See for example *Blais v R.*, 2010 TCC 195.

¹⁵⁰ CRA, GST/HST Technical Information Bulletin B-090, July 2002.

¹⁵¹ CRA, GST/HST Interpretation 25957 *Supplies over the Internet* (9 October 2001).

report, supplies made by electronic means (including digitized products) are either IPP or a service, and not TPP.¹⁵² Moreover, data analytics may be the supply itself, while it may also be an input for a supply of IPP, service, or even TPP.¹⁵³

5.3. Place of supply

A non-resident person that is registered for GST/HST purposes must charge, collect, and remit GST/HST on the taxable supplies made in Canada.

Under the ETA, a supply will be deemed to be made in Canada if:¹⁵⁴

- TPP is delivered or made available in Canada to the recipient of the supply. Conversely, a supply of TPP will be deemed to be made outside Canada if it is delivered or made available outside Canada to the recipient of the supply.
- IPP may be used in whole or in part in Canada. Conversely, a supply of IPP will be deemed to be made outside Canada if it may not be used in Canada.
- The service is, or is to be, performed in whole or in part in Canada. Conversely, a supply of a service will be deemed to be made outside Canada if it is, or is to be, performed wholly outside Canada.

Circling back to the characterization of supplies,¹⁵⁵ the place of supply of an “off the shelf” software on a tangible medium delivered to a Canadian customer in Canada would be deemed to be made in Canada. Therefore, if a non-resident supplier is registered for GST/HST purposes, it must collect and remit GST/HST in respect of the sale of the product. The same goes for software supplied electronically (IPP) that can be used in Canada.¹⁵⁶ Finally, if programming services are performed partly outside of Canada and partly in Canada, then the supply of the services will be deemed to be made in Canada.

Finally, it should be noted that supplies of services made to non-residents are generally zero-rated, while supplies of IPP should generally be zero-rated when supplied to non-resident recipients that are not registered for GST/HST purposes.¹⁵⁷

5.4. Barter treatment

GST/HST is calculated on the value of the consideration of a taxable supply made in Canada.¹⁵⁸ If expressed in money, the value of the consideration will be the amount of

¹⁵² OECD, *Tax Treaty Characterisation Issues Arising from E-Commerce* (1 February 2001).

¹⁵³ If a person supplies TPP, IPP, and services to a recipient, a determination must be made as to whether the person is making a single supply of TPP, IPP, or service, or makes multiple supplies. This analysis is fact-based but the CRA will rely on the principles highlighted in CRA, GST/HST Policy Statement P-077R2, *Single and Multiple Supplies* (26 April 2004) to determine whether a transaction consisting of several elements is to be regarded as a single supply or multiple supplies.

¹⁵⁴ Ss. 142(1) and 142(2) ETA.

¹⁵⁵ CRA, GST/HST Interpretation 25957 *Supplies over the Internet* (9 October 2001).

¹⁵⁶ The possibility to download the software in Canada suffices for these purposes. In other words, it could apply to a worldwide licence if it may be used in Canada.

¹⁵⁷ Part V of Schedule VI of the ETA.

¹⁵⁸ Ss. 165(1) and 165(2) ETA.

money. If the consideration for a supply is other than money, GST/HST is calculated on the fair market value of the consideration at the time the supply was made.¹⁵⁹ In a barter transaction, the CRA will consider that two distinct supplies occur and that each supplier must collect and remit GST/HST.¹⁶⁰

In the Data Feeds case study,¹⁶¹ the rules on barter transactions would apply. In this scenario, Animal Data Co and Information Site Co exchange two supplies: Animal Data Co provides access to its data feed, while Information Site Co provides personal data on its website. For GST/HST purposes, this exchange must be treated as two distinct supplies, one of IPP supplied by Animal Data Co and one of a service supplied by Information Site Co. Both suppliers must collect GST/HST on the value of the consideration for their respective supply, *i.e.* the value of what is being supplied to them.

It should be noted, however, that where two registrants exchange two goods of the same class or kind and both acquire the property as inventory in the course of their respective commercial activities, no sales tax applies to the barter, as the value of the consideration is deemed to be nil.¹⁶² The conditions are cumulative, and the tax authorities will strictly apply the concept of goods “of the same class or kind”.¹⁶³

Part Six: Tax accounting

Tax accounting will reflect the tax implications of big data in the financial statements of entities. Since the tax implications are far from clear at this time, a discussion of tax accounting considerations in this report seems premature. That said, one may consider the relevance of booking or disclosing the tax uncertainties in relation to the tax implications of big data if an entity needs to reflect the same in its financial statements according to the standard adopted (IFRS, US GAAP, etc.).

Part Seven: Other

We have not identified any other tax issues that might be relevant to data transactions in Canada.

¹⁵⁹ S. 153(1) ETA; *Republic National Bank of New York v. Canada*, [1999] G.S.T.C. 32.; 2008-0280701E5, *Barter Transaction—Income Tax & GST Implications* (4 November 2008).

¹⁶⁰ CRA, GST Memoranda 300-7 *Value of Supply* (14 September 1990), CRA, GST/HST Headquarter Letter 158946 *Application of the GST/HST to Transactions where Product is Provided in Exchange for Advertising Services* (4 November 2015).

¹⁶¹ The background of the “Data Feeds” case study may be found in the general report.

¹⁶² S. 153(3) ETA.

¹⁶³ CRA, GST Headquarter Letter 57924 XXXXXXXXXX *Parking* (7 June 2005); CRA, Policy Statement P-221, *Meaning of the phrase “a particular class or kind” as found in ss. 153(3) of the Act* (10 November 1998).

Summary and conclusions

The legal nature of data in Chile is complex considering the existing provisions within Chilean Civil and Commercial rules. The main distinction that Civil law makes, considers a duality of things, corporeal and incorporeal things, although incorporeal things are only rights. Data, and its current status as an asset that may derive significant value, does not properly fit within this duality and therefore its legal standing pursuant to the rights and obligations that may be created or transferred in a big data transaction exceed any potential property consideration that may be held in Chile.

Considering the lack of regulation regarding the legal standing of data in Chile, the legal nature of the three kinds of big data transactions, namely (i) Transfer of raw data; (ii) Transfer of or access to aggregated data; and (iii) Big data analytics, requires a separate analysis from a Chilean legal standpoint, and this becomes an exercise of trying to fit these new developments into old legal institutions.

The three main kinds of legal nature classifications described in this report address these big data transactions as: (i) the creation or transference of rights different than ownership; (ii) the transference of an intellectual property or copyright in the transaction; and (iii) the rendering of a service.

Besides the above, special considerations need to be given with respect to personal data. In this sense, when a big data transaction involves personal data, its legal nature may be better defined than in those cases where it involves data that is not personal, since it is clear that there is no property over personal data in Chile. In this sense, when bringing together the big data transactions legal analysis and the protection of personal data in Chile, some different conclusions may be reached. In the case of raw data transactions that involve personal data, it is clear that these would not mean a transference of a property right in Chile. An aggregated data set containing personal data may be considered the creation of the intelligence or talent of the author, and therefore be under the scope of Chilean Copyright Law. This is under the provision that certain regulatory restrains imposed by Chilean Law no. 19.628 would be applicable.

Moving forward to taxation, the identification of the legal nature of the transactions is highly relevant to characterize the transaction itself for tax purposes, and as such, this report addresses the cases where big data transactions are characterized as services, transactions that involve the transference or creation of a right different than copyrights, and transactions that are characterized as payment for a license.

The domestic taxation of all three kinds of big data transactions, whether they are

¹ Bachelor of Law from Universidad de Chile, Master in law (LLM) and Certificate on International Taxation (ITP), Harvard University; partner at PwC Chile.

² Bachelor of Law and Master of Tax Law from Universidad de Chile, Master in law (LLM) from the London School of Economics; manager at PwC Chile.

characterized as services or as transference or creation of rights or copyrights, may be affected by the application of tax treaties. Chile has sustained a coherent tax treaty policy when negotiating with its different counterparties. Indeed, no major differences are included from one country to another, maintaining a uniform policy when establishing income that is subject to withholding, limited rates, etc. This coherent tax treaty policy has been kept up to date also considering the adoption by Chile of post-BEPS tax treaty provisions.

In the case of big data transactions that would be characterized as a service, the permanent establishment analysis should be performed to determine whether Chile's taxing rights would be limited in the case of the remunerations in consideration for big data transactions that are characterized as services. In this sense, the newly enacted domestic concept of permanent establishment set forth by Chile's most recent tax reform becomes highly relevant.

In the case of royalties, Chile's tax treaties allow for the taxation both by the state of residence and the state of source, however the taxation at the state of source is commonly capped on a maximum applicable tax rate. Chile has included a most favorable nation clause with respect to royalties in most of its tax treaties to allow for certain uniformity in the application of Additional Tax. In the case of royalties, Chile departs slightly from the OECD Model, since in its tax treaties Chile refers to the rights that would be deemed as royalties. In this sense, Chile includes a reference to "other intangible property" when defining the concept of royalties in article 12 of its tax treaties. This would mean that any big data transaction that covers the right to use, access or even distribute a given data set, should be understood as a royalty. This would be the case for the license of use or access to an aggregated or structured data set.

Another relevant aspect to consider, is the recent legal enactment of Chile's Digital Services Tax. In the most recent Chilean tax reform set forth by Law No. 21.210, Chile has included new taxable events within its VAT law that intend to cover the provision of digital services by foreign enterprises. This has been Chile's option to implement a digital service tax within its tax system, but the resulting rules and the taxable events included by the tax reform are much broader than solely digital services.

Chilean VAT on digital services was included within the scope of the services that are subject to VAT. For this purpose, the tax reform included four specific taxable events within the scope of Chilean VAT Law.

The main policy considerations that were given to enact such VAT on digital services were to set a level playing field for foreign and local services providers, to increase revenue collection and to do so by following the recommendations on the matter that the OECD had issued.

As it can be observed, Chile's legal landscape on the taxation of big data transactions has a bit of both worlds. On the one hand, Chile's legal system does not easily fit these new kinds of big data transactions within its existing provisions, and that leaves doubts on their actual characterization for tax purposes. On the other hand, Chile is very up to date in the tax developments that have derived since BEPS and has even recently established a form of Digital Services Tax on its VAT Law.

Introduction: Legal background

Chile does not have a particular set of rules governing big data transactions. Therefore, it is relevant to address the matter from the perspective of the general rules and legal principles applicable in the country. Taking into consideration the description set forth by the general summary of “big data”, it becomes necessary to analyze the relevant areas of Chilean law that come into consideration when referring to big data transactions.

For the purposes of this legal background a difference will be made between data that does not relate to individual's privacy sphere which will be addressed from the civil, commercial and specifically copyright point of view, and personal data which will be addressed under the general protection of privacy law in Chile.

Therefore, the three main kinds of big data transactions described in the general report, namely (i) Transfer of raw data; (ii) Transfer of or access to aggregated data; and (iii) Big data analytics, should be addressed separately from a Chilean legal standpoint.

(i) As for raw data transactions, where unstructured data may be transferred for a consideration, general property law would be the starting point. Chile does not have any kind of “data property statute” within its laws. Therefore, a suggested first approach would be to understand the legal nature of data within the general property statute in Chile. For this, Chilean law classifies assets -or things- based on whether they are corporeal or incorporeal.

The first reference to the right to own -or have property over- incorporeal goods is found in the Chilean Constitution with the constitutional protection of property. On article 19 no. 24, of the Chilean Constitution, the constitutional protection over the property right is ensured. There, it is stated that property rights in Chile include the protection of all kinds of property over things both corporeal and incorporeal.

Besides the general protection of property described in the Constitution, most of the regulation of property rights is found in the Civil Code. Chile is a country from the civil law or continental law tradition and therefore, the regulation of ownership derives from that same tradition.

The distinction between corporeal and incorporeal things is referred to in article No. 565 Civil Code, which states that: “Corporeal things are those that have a physical being that may be perceived by the senses, such as a house or a book. Incorporeal things are mere rights, such as credits”. Based on this simple distinction between corporeal and incorporeal rights, raw data should in principle not be understood as a thing.

The main distinction between corporeal and incorporeal things within the Chilean Civil Code only differentiates between physical things and rights. Article No. 584 of the same Code shows the first light on the legal status of other kinds of incorporeal things – different from rights – by stating that “the makings from the talent or the intelligence are the property of their authors. This kind of property will be regulated by special laws”.

When referring to special laws, Chilean copyright laws should be reviewed. Law no. 17.336 is Chilean law on intellectual property which grants legal protection to “literary, artistic and scientific creations, whichever means they are expressed by”. It should be noted that this law came into force in 1970, which renders it in some ways outdated, particularly when it refers to the definitions of software or computer programs.

Interestingly, within the list of protected works defined in the scope of Chilean copyright law, article 3 no. 17 refers to “Compilations of data or other materials, in machine-readable or otherwise, that for reasons of the selection or arrangement of their contents, constitute

creations of an intellectual nature. This protection does not cover the data or materials themselves and is understood without prejudice to any copyright that subsists with respect to the data or materials contained in the compilation.”

It follows that a given dataset or database may fall under the legal protection of Chile’s copyright law, however this right over a given compilation of data will become effective only if the manner of selecting or arranging the contents has some element of intellect or talent in it. The same provision is clear in stating that, in contrast, the data itself does not have the same protection that the dataset has.

Hence, Chile does recognize property right over incorporeal things, other than rights, in its law. Besides, it is disputed whether or not raw data can be included within the definition of incorporeal things as such data is not a right *per se* nor a creation of the talent or intelligence of an author. Accordingly, for raw data transactions, it could be stated that they would be outside the scopes of both general property law and Chilean copyright law.

Noting the above, it should be reviewed whether there can be rights created over such raw data. Chilean contract law does not provide for a specific limitation on the use, enjoyment or transfer of data. The principle of freedom of contract is applicable and parties are free to agree upon the terms of use or transference of data, as long as that data itself is not under the scope of personal data.

This means that the first kind of big data transactions – raw data transactions – would be transactions that involve the creation or transfer of rights over that data different from property rights. This means rights to use the data or to benefit from it in a different way than that of ownership over such data.

It may be the case that these kinds of transactions also involve the performance of an action in exchange of a consideration, and therefore may consist of the legal nature of a service. This will be reviewed in the following section.

Considering the above, the legal nature of big data transactions could be that of the creation or transference of a right, different than a property right or a copyright, or in some cases the provision of a service.

(ii) As for the transfer of or access to aggregated data, these transactions would most likely be under the scope of Chilean copyright law. Under the provision that there is intellectual property in the selection, order or aggregation of such aggregated dataset, the transfer or granting of access to it would be a transaction involving copyrights in Chile.

However, if there is no copyright or intellectual property in this granting of access or transference of data, and in such cases where the most relevant part of the transaction refers to an action in benefit of the other party in exchange for a consideration, these kinds of transactions may also involve the rendering of a service.

Chile does not have a specific statute for the provision of services, and its main regulations are widespread within Chilean Civil Code and other specific laws.³

In general terms, to define a service one should address the kinds of obligations that may be agreed upon by contracting parties: obligations to give, obligations to do, and obligations not to do.⁴ Services are a “to do obligation”, in other words, the obligation of doing a given action.

³ Brantt, M. and Mejías, C. (2017) “El contrato de servicios como categoría general en el derecho chileno. Su contenido y rasgos distintivos”

⁴ Chilean Civil Code, arts. no. 1548, 1552 and 1555.

Considering the above, the legal nature of the second kind of big data transactions may be that of a copyright or of a service, when it includes the obligation of performing a given action in exchange for a consideration.

(iii) The third kind of big data transactions, big data analytics, holds some similarities with transactions of number (ii) above. When reviewing the kinds of transactions that big data analytics include, it is not the transference of a good or asset, nor is it the granting of rights over a creation of the intellect or talent of the author. Therefore, the nature of such transactions has some resemblances with the provision of a service as was described above.

As will be referred to further in this report, big data transactions will fall under the general definition of services provision under Chilean laws and their tax implications will be reviewed accordingly. However, we cannot disregard that in certain cases a big data analytics transaction may involve the development of or an access given to an algorithm, in which case these transactions will most likely involve the transference of intellectual property under Chilean copyright law.

When it comes to personal data, Chile currently has Law no. 19.628 enacted for the “protection of private life”. Law no. 19.628 is an outdated law when put in contrast with more advanced legislation such as the General Data Protection Regulation in Europe or the California Consumer Protection Act. However, it does ensure a minimum level of legal protection to individual’s personal data, and also imposes some limitations on the use of databases.

With respect to personal data, the Chilean Constitution was amended in 2018, in order to include the protection of personal data as a separate constitutional right alongside the right to the protection of private life of individuals. This constitutional reference is relevant since prior to the amendment, there was debate on whether the constitutional right of property was affected when a breach in personal data occurred.⁵ When the referred amendment was considered by the Chilean Congress, the indication that personal data was within the sphere of protection of property rights was repealed. Therefore, personal data is not considered to be within the scope of protection of rights on property, but incumbents (i.e. individuals) are holders of their personal data.

Experts agree that the legal protection of personal data is negligible in Chile, based on the fact that although consent of the incumbent is generally needed to process personal data, there is a broad exception in the law that states that consent will not be required for “the processing of personal data carried out by legal entities for their exclusive use, or the use of their associates and the entities to which they are affiliated to, for statistical, pricing or other purposes of general benefit to them.” Therefore, this law has been generally understood as a regulatory framework for the market of databases in Chile, instead of it being a law that effectively protects data privacy.⁶

For the purposes of this report, it is also relevant to note that Law no. 19.628 provides for a domestic legal definition of data registry or data bank. According to Law no. 19628, a data bank is an “organized set of personal data, whether automated or not and whatever the form or modality of its creation or organization, which allows the data to be related to each other, as well as to carry out all kinds of data processing.” Besides the general protection set

⁵ See: Case ROL 2033-2014 “Arratia Torres Emiliano Alejandro con Mutua de la Asociación Chilena de Seguridad” and Case ROL 144-2016 “Claudia Villegas Sepúlveda con Jorge Baeza Daza”.

⁶ Viollier, P. (2017) “El Estado de la Protección de Datos Personales en Chile”.

forth for personal data in Law No. 19.628, it should be noted that clinical data held within a medical record has a specific statute within the Chilean law that protects the rights of medical patients.⁷

In this sense, when a big data transaction involves personal data, its legal nature may be better defined than in those cases where it involves data that is not personal, since it is clear that there is no property over personal data. Besides the above, certain relevant definitions are included in Law no. 19.628 that may be applicable across the board to all three kinds of big data transactions.

In a nutshell, when bringing together the big data transactions legal analysis as described above, and the protection of personal data in Chile, some different conclusions may be reached. In the case of raw data transactions that involve personal data, it is clear that these would not mean a transference of a property right in Chile. An aggregated data set containing personal data may be considered the creation of the intelligence or talent of the author, and therefore be under the scope of Chilean copyright law. This is under the provision that certain regulatory restraints imposed by Chilean Law no. 19.628 would be applicable.

As it may be observed, Chilean law provides for little guidance on the legal nature of raw data, this is, aside from personal data which has a more defined regulatory framework in the country. As for data itself, a broad understanding according to civil law reaches the conclusion that data could be held as an incorporeal thing, different from a legal right. However, this would be a contested conclusion. Having stated the former, raw data – different from personal data – is not subject to any special legal protection under Chilean copyright law unless the dataset or database as an aggregated data source has some special character derived from talent or intelligence, in which case Chilean copyright law would be applicable. Finally, rather than from the standpoint of ownership, the analysis will focus on the legal protection towards the access to databases and raw data and the services that big data analytics transaction may entail, from a Chilean civil, commercial and copyright standpoint.

Part One: Basic principles: Character, source and nexus

The initial differentiation to determine the tax treatment applicable to a given data transaction is to determine what rights and obligations are created, transferred or granted among the involved parties in such data transaction. In this section, we will refer to the types of transactions as described in the general report: “raw data transactions”, “aggregated data transactions” and “big data analytics”.

(i) Having stated that data itself – i.e. raw data or big data – is not considered an incorporeal thing under the scope of Chilean general property law, the first distinction that should be made to characterize a given big data transaction is whether or not such transaction falls under the scope of Chilean copyright law. In the event that the transaction cannot be understood as being under the scope of Chilean copyright law, as a residual conclusion it follows that this kind of transaction could be reviewed as the performance of

⁷ This specific statute is described within Law No. 20.584 the law called “Regulates the rights and duties that people have in relation to actions related to their health care”.

an action in exchange for a consideration. In this sense the rules that apply to the provision of services should be further analyzed.

As for the provision of services, it should be noted that Chile does not have a specific statute for the contract of provision of services, besides the definition within the lease contract in Chilean civil law. Therefore, the main characteristics of the transaction itself should be analyzed.

In broad terms the provision of services is defined within article no. 1915 of the Civil Code which, as said, regulates leases. The definition of lease states that “the lease is a contract in which the two parties are reciprocally bound, the one to grant the enjoyment of a thing, or to perform a work or provide a service, and the other to pay for this enjoyment, work or service a specific price.”

On the other hand, as it was noted in the background section of this branch report, a given database or dataset may be under the scope of copyright law in Chile, hence a licensing agreement may be in place, particularly referring to access to aggregated data. In this regard the data transaction should also be reviewed under the scope of royalties as will be described below.

Considering the above, the two main legal characterizations applicable in Chile for a data transaction would be in fact the provision of a services or the granting of a license under Chilean copyright law.

Data transactions characterized as services

For “raw data transactions” the rights and obligations that would be created, transferred or granted between the parties of the transaction would not be under the general scope of a licensing agreement or copyright, since data is not in the scope of Chilean copyright law. It should therefore be characterized as a service.

Generally speaking, for cross-border payments, the Chilean Income Tax Law establishes the Additional Tax, which is the Chilean non-resident withholding tax. Broadly, the mechanics of the Additional Tax envisage that the person making payments to abroad -payments which are subject to Additional Tax- is the one responsible for withholding it paying the withheld amount to the Chilean Treasury. With respect to the actual rate of Additional Tax, the general rule is a 35 per cent rate. However, lower rates are available depending on the characterization of the payment to abroad.

As for the source of the income, Chilean rules are based on two general principles, the general rule of source income from where the goods are located or activities carried out, and a specific rule on the location paying source of the income.

The general rule pursuant to the location of the goods is found in article 10 of the Chilean Income Tax Law. In such rule it is stated that it will be considered Chilean sourced income when income is derived from assets located in the country or from activities carried out in it regardless of the domicile or residence of the taxpayer.

In the case of services, Chilean Income Tax Law levies services provided abroad with the referred Additional Tax even though it is not properly speaking Chilean source income ; our law provides for an exception in this case, being subject to taxes in Chile services paid from down here to abroad. Broadly speaking, in the case of services Additional Tax would be applied at the general rate, under number 2 of article 59 of the Chilean Income Tax Law (35 per cent). However, a 15 per cent reduced rate is available for payments made for engineering or technical work and for professional or technical services that a person or

entity expert in a science or technology renders through the provision of advice, a report or plan, either rendered in Chile or abroad.

In this sense and considering the technological nature of the data transaction such as raw data transactions, such transactions could be characterized as payments for the provision of professional or technical services, subject to the reduced 15% rate. However, it is always recommendable to analyze the terms and conditions under which such services are being provided.

The aforementioned applies in case the provision of those services do not configure a permanent establishment in Chile. It should also be noted that the Chilean tax reform set forth by Law No. 21.210,⁸ included within Chilean Income Tax Law a domestic concept of permanent establishment for the first time. Prior to February 2020, Chile did not have a permanent establishment domestic concept within its law and it was only constructed by administrative pronouncements of Chilean Internal Revenue Service.

According to the new provision, a permanent establishment is now defined in the Chilean Tax Code as “a place for the habitual or permanent development of all or part of an undertaking, business or activity from an individual or entity without domicile or residence in Chile, both exclusively for these ends or not, such as offices, agencies, premises, construction projects and branches.

A PE is also deemed to exist when an individual or entity without domicile or residence in Chile, performs activities in the country represented by a proxy and in the performance of the activities of such proxy habitually concludes contracts within the ordinary business of the individual or entity represented, performs a main role in their conclusion or negotiates essential elements from them without further modification by the represented individual or entity without domicile or residence in Chile. In consequence, a PE will not be deemed to exist from an individual or person without domicile or residence in Chile, when a proxy who is not economically or legally independent from the represented individual or entity, that performs such activities in the ordinary development of its business.”

Besides the above, Chilean law provides for an exemption for auxiliary and preparatory activities but does not include a list of examples.

In case it is understood that services provided qualify as permanent establishment in accordance with Chilean domestic rule, such will be subject to tax in Chile as any other resident in the country. Thus, the permanent establishment will determine its taxable income on a net basis, considering a worldwide basis. Such permanent establishment will be subject to First Category Tax with a rate of 27%. Dividends, distributions or remittances of profit from a Chilean company or, in this case from the permanent establishment to foreign final shareholders are subject to Additional Tax at a 35 per cent rate, with the option to deduct the First Category Tax Credit previously paid. In general terms, the withholding agent shall withhold an amount equivalent to 35 per cent of the First Category Tax credit, which means that the effective tax rate amounts to 44,45%. This is unless the Additional Tax taxpayer resides in a tax treaty country and qualifies for the benefits of the treaty, in which case full First Category Tax credit will be granted.

⁸ Law No. 21.210 published in the official gazette on 24 February 2020.

Data transactions characterized as payment for a license

In the case of “aggregated or structured data”, as stated in the background this would be under the scope of Chilean copyright law. Therefore any right created, transferred or granted should be considered a payment for a license for Chilean purposes.

License payments to non-residents are also under the scope of Chilean Additional Tax. In this regard, paragraph 1 of article 59 of the Chilean Income Tax Law levies with Additional Tax the payments made for the use, enjoyment or exploitation of trademarks, patents, formulas and other similar things, whether they consist of royalties or any other form of remuneration. This also includes payments made for the use, enjoyment or exploitation of invention patents, utility models, industrial drawings and designs, layout design or topography of integrated circuits, new vegetable varieties and software.

Considering the definition of aggregated or structured data set forth in the general report, such transactions could be characterized within the broad concept of “similar things” as per the characterization contained within paragraph 1 of article 59. In this sense Chilean income tax law also provides for a reduced Additional Tax rate of 30% applicable for these payments.

It should be noted that with respect to software, an exemption has been included for standardized software (Additional Tax at a zero per cent rate). A standardized software would be one for which rights are granted only as a necessity to allow the user to utilize the software, without any permission that would allow its commercial exploitation, reproduction, or modification towards ends other than being able to use it as it is intended.

The concept of standardized software has been profusely addressed by the Chilean Internal Revenue Service, by limiting the scope of application of the concept.⁹ A special note should be made regarding a 2018 pronouncement of the Chilean Internal Revenue Service, where the situation under analysis was the payment for the showcase and broadcast of advertisements that were performed by users by means of a digital platform. In this case, the Chilean Internal Revenue Service interpreted that the use of the platform was solely the means to provide a given service, and therefore such payments should not be characterized as royalties but as a provision of services.¹⁰

Considering the above, a data transaction would not generally be characterized within the definition of standardized software. However, it could be the case that the access to a given dataset is granted only for the use of such dataset in accordance with those limited rights described within the concept of standardized software, and therefore the transaction could benefit from the Additional Tax exception described above.

Data transactions that would be characterized as both a payment for a service and a payment for a license

Finally, in the case of “big data analytics” a more detailed distinction should be performed as to whether the most relevant part of the transaction refers to performing an analysis through an algorithm or big data analytics, or whether the most relevant part of the transaction refers to the big data set that is the object of such.

⁹ See Chilean Internal Revenue Service Rulings N° 1482/2014, N° 1214/2016, N° 2000/2017 and N° 123/2018.

¹⁰ Chilean Internal Revenue Service Ruling N° N° 123/2018.

As was described above, the Chilean Internal Revenue Service has held the interpretation that the tax characterization should be performed according to the nature of the payment under Chilean law, and whether or not the service component (or the professional or technical work being performed) is the most relevant part or not.

In the case of big data analytics transactions, where the main component refers to the analytics part, it is more likely that these kinds of transactions will be characterized as professional or technical service, subject to the reduced 15% rate as described above.

On the other hand, if the big data analytics transaction is basically an access to a specific big data repository that has been aggregated to be selected in a certain manner, it should most likely be characterized as a license or a royalty being a right granted under the scope of Chilean copyright law, and accordingly be characterized within the broad concept of “similar things” within paragraph 1 of article 59.

As a final note, there is currently no administrative interpretation issued by the Chilean Internal Revenue Service of the characterization of the payment derived from the data transactions as the ones described in the general report.

As for the source of income, as previously described, Additional Tax would levy the income derived from goods located in Chile or activities carried out in the country. Besides the above, there are specific source rules applicable for different taxable events that are subject to Additional Tax.

In what is applicable to the analysis at hand, article 10 also provides for a specific source rule for royalties, rights for the use of trademarks and other similar benefits derived from the use, enjoyment or exploitation in Chile of industrial or intellectual property. The income derived from such will be considered Chilean source income if the enjoyment or exploitation of the royalty, right of use of trademark and other similar benefits occurs in Chile.

Both the general rule and the specific rules should be kept in mind when reviewing the source of income derived from a given data transaction, and it will depend on the tax characterization of such transaction as was described in the section above.

As for the nexus, the main rules in Chile differentiate between the subjective nexus and the objective one. As for the subjective rule, in Chile only Chilean residents and domiciled are subject to tax in Chile on their global income. As for the objective rule, Chile levies the income derived from assets located in Chile or activities performed in Chile as described previously.

Non-residents are subject to taxes in Chile on their Chilean source income. For such purposes, Chilean income tax law provides for a general source rule, under which income derived from goods situated in Chile or from activities carried out in the country is considered to be Chilean source income and is, as such, subject to taxes in the country.

Chile does not have a special nexus rule that applies to data transactions, nor a rule that includes the significant digital presence for tax nexus.

Part Two: Application of treaty principles

The taxation described above, may be affected by the application of tax treaties. Chile has sustained a coherent tax treaty policy when negotiating with its different counterparties. Indeed, no major differences are included from one country to another, maintaining a uniform policy when establishing income that is subject to withholding, limited rates, etc. This coherent tax treaty policy has been kept up to date also considering the adoption by Chile of post-BEPS tax treaty provisions.

The Chilean tax treaty network includes treaties with most relevant countries of all regions in the world. The Chilean tax treaty network continues to expand as well: the latest treaties that have been signed by Chile are with the United Arab Emirates and India.

Chilean treaties in general follow the OECD Model with certain deviations introduced to secure a Chilean right to tax at source. Broadly speaking, as per the wording of Chilean treaties, withholding is allowed on dividends, interest, capital gains, royalties and other income.

Given that the most likely characterization of the data transactions described in the general report would be both as a service or as a royalty, those articles may affect the taxation of the big data transactions described.

2.1. Detailed comments

Considering that the big data transactions under analysis should be looked at from both the scope of provision of services and payment for the concept of royalty, specific treaty provisions should be analyzed.

In relation to services, in broad terms, payments for the remuneration of services are included under article 7 as business profits. However, it is important to consider that Chilean tax treaties include a service PE concept among its provisions.¹¹

Additionally, the tax treaties in place with Colombia and Argentina include services of a technical nature under article 12. The tax treaty in place with Brazil includes, as part of the scope of article 14, any income received by a resident in connection to professional services or any other independent activity of similar nature, without limiting the application of such an article to individuals. The tax treaty with Uruguay includes as part of the scope of article 14bis, the remuneration for technical services which refers to any payment in consideration of services of a managerial, technical or consulting nature.

In the case of big data transactions that would be characterized as a service, the PE analysis should be performed to determine whether Chile's taxing rights would be limited in the case of the remunerations in consideration for big data transactions that are characterized as services.

In the case of royalties Chile's tax treaties allow for the taxation both by the state of residence and the state of source. However, the taxation at the state of source is commonly capped on a maximum applicable tax rate. Chile has included a most favorable nation clause with respect to royalties in most of its tax treaties to allow for certain uniformity in the application of Additional Tax.

Another departure from the OECD Model in Chilean treaties with respect to royalties refers to the rights that would be deemed as royalties. In this sense Chile includes a reference to "other intangible property" when defining the concept of royalties in article 12 of its tax treaties.

The reference to other intangible property is highly relevant since it has led the Chilean Internal Revenue Service to interpret that any right comprehended within the scope of Chilean copyright law, should be understood as a right covered within the concept of royalty of Chilean tax treaties.¹²

¹¹ In general terms it is included in art. 5 (3) of Chilean tax treaties.

¹² Chilean Internal Revenue Service Ruling N° N° 124/2018.

This would mean that any big data transaction that covers the right to use, access or even distribute a given data set, should be understood as a royalty. This would be the case for the license of use or access to an aggregated or structured data set.

Part Three: Transfer pricing

With regard to transfer pricing, Chilean provisions do not include specific considerations to address any of the issues that big data transactions may give rise to, nor has the Chilean Internal Revenue Service issued any general guidance on the matter. Having stated the above, it is relevant to note that the Chilean Internal Revenue Service's practice is to follow the OECD Transfer Pricing Guidelines closely, even in the case of domestic transactions, which by virtue of the Chilean income tax law, are not under the scope of Chilean transfer pricing rules which solely apply to cross-border transactions.

Having stated the above, in the development, enhancement, maintenance, protection and exploitation of datasets that may increase value or efficiency within a given company, cost allocation and potential entitlement to the value created by such, could potentially be reviewed by the Chilean Internal Revenue Service under the scope of the OECD Transfer Pricing Guidelines.

Part Four: Special regimes

In the most recent Chilean tax reform set forth by Law No. 21.210,¹³ Chile has included new taxable events within its VAT law that intend to cover the provision of digital services by foreign enterprises. This has been Chile's option to implement a digital service tax within its tax system, although the resulting rules and the taxable events included by the tax reform are much broader than solely digital services.

Chilean VAT on digital services, was included within the scope of the services that are subject to VAT. For this purpose, the tax reform included four specific taxable events within article 8 letter n) of the Chilean VAT law.¹⁴

Chilean VAT on digital services was initially proposed in the tax reform bill in August 2018. In its inception it was intended to be a sole tax separate from VAT, more akin to a Digital Services Tax. In its original form, it was intended to have a rate of 10% and it was limited to digital services.

However, upon request by the Chilean government the OECD provided comments on the Chile's proposed tax reform that included the Digital Services Tax. As a consequence, the initial bill was modified from the initial sole tax alternative to a VAT on digital services.¹⁵

The main policy considerations that were given to enact such VAT on digital services

¹³ Law No. 21.210 published in the official gazette on 24 February 2020.

¹⁴ Decree Law No. 825 of 1974.

¹⁵ El Mercurio, 2019. "OECD states support to Chilean Government's Tax Reform" <https://www.emol.com/noticias/Economia/2019/03/25/942348/OECD-se-cuadra-con-reforma-tributaria-del-Gobierno-Apoyamos-firmemente-el-proyecto.html> > [consulted: 15 October 2020]

were to set a level playing field for foreign and local services providers, to increase revenue collection and to do so by following the recommendations on the matter that the OECD had issued.

Besides the main policy considerations, there was also a practical aspect. Although some of these services were already levied with Chilean Additional Tax, in practice the compliance by individuals was not addressed, which in most cases, left the services untaxed. This was not the case for legal entities, where the Additional Tax compliance was a requirement for tax deductibility of the expenditure. This practical aspect was also addressed by the tax reform with some amendments to the VAT exemption that was granted to services levied with additional Tax.

Addressing the VAT on digital services itself, the tax reform added four new taxable events within the scope of the taxation of services. When specifically analyzing the taxable events, it is reasonable to sustain that they were envisioned to be broad in a sense that they should include future technological developments.

The taxable events that were added to Chilean VAT law are : (1) The intermediation of services provided in Chile, whatever its nature, or sales made in Chile or abroad, provided that they give rise to an import; (2) The supply or delivery of digital entertainment content, such as videos, music, games or other similar, through downloads, streaming or other technology, including for this purposes, texts, magazines, newspapers and books; (3) The provision of software, storage, platforms or IT infrastructure; and (4) Advertising, regardless of the medium through which it is delivered, materialized or executed.

As can be observed, there is no specific reference to big data transactions within the scope of the taxable events in the Chilean VAT on digital services. However, the Chilean IRS has interpreted that the provision of platforms or IT infrastructure should be understood as also encompassing Software-as-a-Service (SaaS), Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS).¹⁶

For the above services, territoriality of services and reverse charge VAT rules are also modified depending on the recipient of the services and whether or not the recipient is a VAT taxpayer.

Chilean VAT on digital services has also included a new set of source rules to deem that a service is rendered in Chile, specifically for the services that are rendered digitally. For these digital services, it is assumed that the service is rendered in Chile if two of the following four conditions are met: (i) the IP address of the device utilized by the user or any other geolocation mechanism indicates that the device is in Chile; (ii) the card, current account or other means of payment utilized for the payment is issued or registered in Chile; (iii) the address stated by the user for invoicing or for the issuance of the payment voucher is located in national territory; or, (iv) the SIM card of the mobile phone through which the service is received has a Chilean country code.

Within its scope, Chilean VAT on digital services includes services that are both B2B and B2C. Regarding the services provided to individuals that are not VAT taxpayers (B2C services), companies will be subject to a simplified registration process. These foreign companies have been granted access to a simplified tax registration and compliance regime which is created by law. In this cases VAT must be declared and paid in a tax period that can go from one to three months, at the taxpayer's choice. Payment is allowed in foreign currency. The

¹⁶ Chilean Internal Revenue Service, Circular Letter N° 42/2020.

Chilean Internal Revenue Services has interpreted that this simplified mechanism also applies when the recipient of the service is a legal entity that is not a VAT taxpayer.¹⁷

Regarding digital services provided to VAT taxpayers (either B2B or B2C), a reverse charge mechanism will apply with the beneficiaries of the service retaining the corresponding tax, granting them the right to receive a VAT fiscal credit for it.

As anticipated, another relevant part of the introduction of a VAT on digital services in Chile is the interaction between Chilean Additional Tax and the new VAT on digital services. Before the introduction of the Chilean VAT on digital services, Chilean VAT law provided for an exemption of VAT on article 12, letter e) number 7. According to such, a service rendered in Chile was exempted from VAT if it was levied with Additional Tax according to article 59 of the Chilean Income Tax Law, unless they were exempted from Additional Tax by virtue of an exception or the application of a tax treaty.

In practice, the exemption meant that if a service were rendered abroad, as would be the case of digital services, a given service could benefit both from an exception of Additional Tax and of VAT. This was the case for standardized software.

Two amendments were introduced to address the compatibility between VAT on digital services and Additional Tax. The first one was to add the word utilized to the exception of article 12, letter e) number 7 of Chilean VAT law. This means that if a service is rendered or used in Chile, it will be subject to Chilean VAT, unless it is levied with Additional Tax under article 59 of the Chilean Income Tax Law.

The second amendment was to add an exemption from Additional Tax to those services that are now levied with the VAT on digital services, when they are provided to individuals. This exception was added in article 59 bis of Chilean Income Tax Law. In practice, this means that the services described in the new taxable events of the VAT on digital services, are not subject to Additional Tax when they are rendered to individuals.

Chilean VAT on digital services entered into force as of 1 July 2020. Since this tax is very recent, administrative guidance and interpretation issued by the Chilean Internal Revenue Service is very limited. As for the administration of the tax, a new website has been created by the Chilean Internal Revenue Service for foreign service providers to access the simplified registration mechanism and pay the corresponding VAT on digital services.¹⁸

With regard to tax incentives, Chile has a single tax incentive on research and development that was introduced by Law 20.241 in 2008 and modified in 2012 by Law No. 20570. This law introduced a tax incentive on private investment in research and development.

The tax incentive is a direct tax credit equivalent to 35% of the expenditure in research and development for the taxpayer that privately invests on it. The tax credit is allocated directly against its First Category Tax, i.e. Chilean Corporate Income Tax. The tax credit is capped to a yearly amount of 15.000 Monthly Taxable Units (UTM).¹⁹ Besides the direct tax credit, all other expenditure in research and development in excess of the maximum tax credit, is allowed as a deductible expense for tax purposes.

In order to benefit from such tax credit, at least 50% of the research and development has to take place in Chile.

¹⁷ Chilean Internal Revenue Service Circular Letter N° 42/2020

¹⁸ Chilean Internal Revenue Service, 2020. < <http://www.sii.cl/vat/index.html> > [Consulted: 15 October 2020].

¹⁹ UTM is a Chilean self-adjusted monetary indicator. As per the exchange rates for 15 October 2020, 15,000 UTM is equivalent to approximately USD 990,000.

In order to be granted such benefit, the taxpayers are required to submit their project to an approval and certification process before the Chilean economic development agency (CORFO).²⁰ To obtain such qualification the project needs to demonstrate that there is research and development according to the definitions set forth by the law.

Within the scope of the Chilean tax incentive on research and development, there is no specific provision that includes big data development and exploitation. There is a specific reference to computer software by providing that such development gives rise to greater knowledge in order to solve a systematic scientific or technological uncertainty or allow to generate a substantial and innovative improvement in any process, product and /or service.

The Chilean tax incentive on research and development has been in force since 2008 but it has not been widely used by taxpayers. As a reference, in 2019 only 69 research and development projects were submitted before CORFO for approval and certification, and 61 were accepted.²¹ This law will cease to be in force on 31 December 2025.

Part Five: Indirect tax

The most relevant aspect of indirect tax was addressed in part four of this branch report when referring to Chile's new VAT on digital services.

Besides the above, Chilean VAT law levies the sale of physical goods and the provision of certain services. Since the general provision set forth by article 2 of Chilean VAT law provides that VAT applies to the sale of physical or corporeal goods, in the event that a given dataset would be understood as an incorporeal asset it would not be subject to VAT. However, as we have stated in the legal background, this does not have sufficiently clear legal grounds in Chile. If it were the case, the Chilean Internal Revenue Services would have consistently interpreted that the sale of incorporeal things is not subject to VAT.²²

In the case of big data transactions that would be characterized as services, it should be noted that even before the VAT on digital services, Chilean VAT law included within its taxable events, in article 8 letter h), a provision that levied with VAT the leasing, subleasing or any other form of assignment of the temporary use or enjoyment of trademarks, invention patents, industrial procedures or formulas and other similar benefits.

In this sense, the big data transactions described in the general report would be characterized for VAT purposes as a service subject to VAT, particularly the transfer of aggregated or structured data transaction that would involve a license under Chilean copyright law.

²⁰ As per their own description: "Corfo is the Chilean economic development agency that works daily to improve the competitiveness and the productive diversification of the country by encouraging investment, innovation and entrepreneurship." See < <https://www.corfo.cl/sites/cpp/webingles> > [consulted: 15 October 2020]

²¹ CORFO, 2020. "Management report for the period 2019" < <https://www.corfo.cl/sites/Satellite?blobcol=urldata&blobkey=id&blobtable=MungoBlobs&blobwhere=1475167559848&ssbinary=true> > [Consulted: 25 October 2020]

²² See for example Chilean Internal Revenue Service Rulings N° 3871/2001, N° 2073/2012.

Part Six: Tax accounting

The general revenue and expense recognition rule in Chile is that they should be accounted for on an accrued basis, although there are some exceptions to this general principle. This is envisaged in article 29 of the Chilean Income Tax Law.

Since there is no specific regulation on big data transactions in Chile, the general provisions are applicable. However some uncertainty is foreseen, depending on the nature of the income derived from such data transaction.

As for the capitalization and amortization, in general terms Chile does not provide for the possibility of capitalization of intangible assets, and accordingly these are not subject to depreciation.²³

As for the tax deduction of expenses, Chilean Income Tax Law was recently modified by the tax reform contained in Law No. 21.210, which broadened the concept of necessary expense that was previously very limited, particularly by interpretations of Chilean Internal Revenue Service, to include the possibility to deduct expenses that have the ability to produce income.

As to the capitalization and amortization of expenditure to collect data, maintain databases or data analytics tools, and by virtue of the general rules stated above, the expenses incurred in the collection of data, maintenance of data sets and data bases will be deducted as an expense, but not capitalized within the cost of the asset itself.

Reference case studies

The general report first addressed the case of data brokers or information resellers. The first aspect to analyze in the case would be that there is a Chilean resident that intends to purchase a given data set from the data broker, who is resident abroad. Under the provision that there is no ownership of data, this transaction should be characterized either as a service or as a license as was discussed in the previous section of this report. Under the assumption that the level of analytics applied to the data is low, this payment should be characterized as a license. In contrast, if the level of analytics applied imply that there is more relevance to the technical or professional character, the transaction should be characterized as a service.

As for the source of the income in this first transaction, Chile does not have a specific rule on source based on the location of the persons that are data objects. Instead, general Additional Tax rules would apply to such payment stating that the customer would be the source of the payment, and therefore such transaction would be levied with Additional Tax in Chile.

As for the kind of service, the provision of this service would be characterized as a technical or professional service, subject to a reduced Additional Tax of 15%.

Considering the new Chilean VAT on digital services, the purchase of a given data set can potentially be considered within the scope of number (2) of article 8 letter n) of Chilean VAT Law which levies the supply or delivery of digital entertainment content with VAT. Even though, a data set is not entertainment content it is in fact digital content, and in this sense

²³ Chilean Internal Revenue Service Ruling N° 2152/2013.

the Chilean Internal Revenue Service has understood the provision to be broad and to also be applicable, even though there is no entertainment component involved.²⁴

In this case, it will be very relevant to determine if the Chilean customer acquiring the data is subject to VAT or not. In the case the Chilean customer is subject to VAT and it is not an individual, Additional Tax will apply and therefore the payment for the data set will not be subject to VAT.

The transaction between the data broker and the website company, in which a flow of information is granted to the data broker through the API and the data broker would be organizing, selecting and aggregating the data that it receives from the website company, would be characterized as a service as well. In this case, a similar analysis than the one described for the data broker will be in place.

The case of data feeds, the payment made from the Information Co to Animal Data Co, would be considered in Chile a license. This is because of the broad definition of intellectual property right, contained in Chilean copyright law. Under this analysis the payment to access a given data feed that is structured in a certain way, should be considered as a license.

The case of performance of data analytics, the main issue lies in determining if there is a creation of intelligence or talent that is under the scope of Chilean copyright law. In the cases under analysis, – no matter that there is a purely automated or nonhuman participation –, for the party that benefits for the data analytics service provision the fact that there is an action being performed to its benefits in exchange for a consideration, should deem this transaction as the provision of a service.

²⁴ Chilean Internal Revenue Service, Circular Letter N° 42/2020.

Summary and conclusions

From a legal perspective, there is no specific law/regulation governing the transaction in relation to big data, and thus the transaction on big data is regulated by a combination of existing laws including the Civil Code, the Trade Secrets Act, the Personal Data Protection Act and the Copyright Act. Relevant regulation requirements should be satisfied when conducting the transactions on big data in Chinese Taipei.

On the other hand, from a Chinese Taipei direct tax perspective, similar to a legal standpoint, there is no specific tax law or ruling addressing “data transaction”, or a legislated classification of “raw data transactions”, “aggregated data transactions”, and “big data analytics” in Chinese Taipei. The tax treatment of the transactions on big data should depend on the terms and conditions specified in the agreement of the transaction and how the data is packaged to be sold therein. Nevertheless, as Chinese Taipei uses sourcing rule to determine a foreign company’s tax obligation in Chinese Taipei, the transaction on big data could be captured and taxed under the current sourcing rule. In summary, from a Chinese Taipei tax perspective there are four types of transactions that are related to big data, namely (1) licensing activity, (2) provision of e-services, (3) provision of services and (4) provision of goods. According to the sourcing rule, the nature of the income deriving from licensing activities is royalty and it would be business income for other services.

For a foreign company without a fixed place of business, a business agent in Chinese Taipei conducts transaction on big data, if the income generated therein is royalty, the default statutory withholding tax for the royalty payment is 20% on the gross royalty payment. The 20% default withholding tax rate could be further reduced if an applicable bilateral tax treaty or other tax regime exists provided that relevant requirements are met.

For a foreign company providing services and e-services to its customers in Chinese Taipei, it would be very difficult to justify that the income generated therein is not Chinese Taipei sourced income and is exempt from corporate income tax as a result, unless certain requirements are met. Only when the transaction is all rendered outside Chinese Taipei and without the assistance of an entity or individual in Chinese Taipei, could the income generated be deemed as non-Chinese Taipei sourced income. Otherwise, the income derived from big data transactions in relation to e-services is considered as other income from a domestic tax perspective and would be subject to WHT at a default rate of 20% with a 30% deemed profit rate and a 50% contribution ratio provided that there is no relevant evidence justifying the deemed profit rate and the contribution ratio. The income derived from services is subject to a default withholding tax rate at 20% with a deemed profit rate by the profit standard of the same trade concerned published by the tax authority. Both

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abovementioned income could be further exempt/reduced under applicable bilateral tax treaty if certain requirements are met.

For big data transactions in relation to the provision of goods, provided that a foreign company sells data to a buyer by means that the buyer imports the goods embedded with result of analytics, such transactions shall be recognized as the import of goods qualifying the international trade rules and are exempt from CIT.

As there is no determinative factor separating the transaction into licensing activity and provision of services, the nature of the transaction should very much be subject to the terms and conditions under the applicable transaction agreement.

From a bilateral tax treaty perspective, given big data transactions, the OECD Model and the UN Model differ in article 12. Both the OECD Model and the UN Model treat royalties the same as passive income (e.g. dividend and interest) which the sourcing country has the right to tax and a reduced WHT rate could be applied once certain requirements are met. However, under article 12A of the UN Model, for e-services and services in relation to big data transactions, if the e-services and services in question are considered as technical services, the UN Model also treats such income therefrom as royalty and a reduced WHT rate could be applied accordingly.

On the other hand, for services not qualified as technical services under the UN Model as well as both e-services and services under the OECD Model, article 7 – business profit of the bilateral tax treaty should apply. If the services in question are carried out without a permanent establishment in another country, that country should not have the taxing right regarding the income derived.

Any data transaction, regardless of nature, shall be subject to transfer pricing regulations in Chinese Taipei. As data transaction is a relatively new way of transaction, in the absence of comparable transactions, the comparable uncontrolled transaction method may be difficult to apply. When determining relevant revenues of the transaction, the DEMPE (Development, Enhancement, Maintenance, Protection, Exploitation and Promotion) function the foreign company performs, should be considered.

Given indirect tax in Chinese Taipei regarding transactions on big data, unlike the ambiguity of definition under direct tax, data transaction by a foreign company to a buyer in Chinese Taipei is generally accepted to be regarded as a service provision and is therefore subject to business tax under the current VAT regulation at a rate of 5%.

Lastly, Chinese Taipei provides certain incentives to transactions on big data such as Grants or Guidance for Innovation Activities of the Statute for Industrial Innovation, when certain conditions are met, and approval is received from the relevant authorities. Companies in Chinese Taipei could enjoy either that (1) up to 5% of the annual spending sum may be credited against the profit-seeking enterprise income tax payable by it in the then-current year; or (2) up to 3% of the annual spending sum may be credited against the profit-seeking enterprise's income tax payable in each of the three years from the then-current year.

Introduction: Legal background

Although there is no legal definition for big data under Chinese Taipei's law system, the application of big data still may involve some laws and regulations, including but not limited to the Civil Code and the Trade Secrets Act in Chinese Taipei. In addition, two material laws

are also relevant in Chinese Taipei: The Personal Data Protection Act and the Copyright Act.

First, according to article 2 of the Personal Data Protection Act, personal data include a natural person's name, date of birth, national identification card number, passport number, features, fingerprints, marital status, family information, education background and any other information that may be used to directly or indirectly identify a natural person. If the information collected through big data technology is considered personal data under the Personal Data Protection Act, necessary protective measures must be taken by the person or agency who uses the information. Furthermore, data transfer shall comply with the laws and regulations regarding personal data protection.

Second, information collected and acquired through big data technology may become a compilation work. Under article 7 of the Copyright Act, a compilation work formed by the creative selection and arrangement of materials shall be protected. In determining whether a compilation work is protected under the Copyright Act, the crucial factor is whether the selection and arrangement process is "creative". The judicial system in Chinese Taipei focuses on creativity while determining originality. Even if the provider of the data devotes plenty of time or investment for database creation and maintenance, if the creativity cannot be proved, it will be a challenge to obtain copyright protection under the Copyright Act.

Part One: Basic principles: Character, source, and nexus

1.1. General overview

There is no specific tax law or ruling addressing "data transaction", or a legislated classification of types of data transactions such as "raw data transactions", "aggregated data transactions", and "big data analytics" in Chinese Taipei. However, as Chinese Taipei uses sourcing rule to determine a foreign company's tax liability in Chinese Taipei, digital data transfer of different types may be subject to income tax in Chinese Taipei once Chinese Taipei sourced income is generated therein. Depending on the terms and conditions specified under the transaction in question, the nature of such transaction might be determined differently from a Chinese Taipei tax perspective and different source determination would be applied accordingly leading to different tax treatments. Data transactions' character, source and nexus related regulation/practice in Chinese Taipei will be addressed below.

1.2. Character

Generally, as resident companies (including foreign companies with a fixed place of business in Chinese Taipei such as a branch) will issue Government Uniform Invoice ("GUI") according to the Value-added and Non-value-added Business Tax Act whenever they occurred sales revenue, the tax authority in Chinese Taipei could have a meticulous government regarding the sales revenue resident companies reported in their tax returns. To put it differently, characters are not relevant to resident companies as all their revenues are taxed less the relevant cost and expense at a CIT rate of 20%.

In contrast with resident companies, Chinese Taipei uses sourcing rule to determine whether a foreign company without a fixed place of business in Chinese Taipei ("a foreign company") will have tax obligation/liability in Chinese Taipei. In addition, as a foreign

company is generally not required to file the tax return under the Income Tax Act ("ITA"), its tax obligation/liability will usually be accomplished by the operation of the WHT system. That is to say, the withholding obligator (the payer) will withhold/collect the tax upfront when it pays such payment to a foreign company and pay such WHT to the tax authority on behalf of the foreign company. For a different nature of the income that the withholding obligator pays to the foreign company, different rates of the WHT will be levied on the transactions depending on the character/source of the transaction.

Provided that there is no specific regulation governing the data transactions holistically, we will look into what types of transactions in terms of big data transactions are regulated under article 8 of the Income Tax Act ("the sourcing rule in Chinese Taipei") first and elaborate on how the sourcing rule in Chinese Taipei interacts with the data transactions to further determine the source and tax treatment of big data transactions in the next section, section 1.3.

In general, we can categorize the data transactions into licensing activity, provision of e-services, provision of services other than e-services and provision of goods to accommodate the sourcing rule in Chinese Taipei by examining the nature, the pricing method and the deliverables the client received to further determine how the remuneration derived therein should be taxed under the Income Tax Act ("ITA").

We outlined how big data transactions are going to be categorized from a Chinese Taipei tax perspective under the sourcing rule in Chinese Taipei, namely four transactions: licensing activity, provision of e-services, provision of services and provision of goods, as below:

Licensing activity

As licensing activity generates royalty income, according to the Guidelines for the Determination of Income from Sources in the Republic of China provided by article 8 of the Income Tax Act ("the guidance for sourcing rule in Chinese Taipei"), the meaning of royalty specified under the sourcing rule in Chinese Taipei refers to the royalty obtained from the investment of right to use or authorization of use provided to individuals, corporations or organizations regarding intangible assets ("qualified licensing activity") as follows:

- (1) Intangible assets such as copyright and registered patents, trademarks, franchises, corporation names, and brand names.
- (2) Intangible assets such as secret methods or expertise not registered: Secret formulas or manufacturing procedures, designs or models, plans, trade secrets, information or expertise regarding industry, trade or scientific experience, various franchises, marketing network, client information, channel agency and other rights with value of an asset. The secret methods refer to various methods, techniques, procedures, formulas, programs, designs, and other information regarding manufacture, sales or operation, which are of practical or potential economic value but are not generally known by persons with related knowledge.

That is to say, if during the big data transaction, the big data used therein is derived from certain intangible assets and falls into the abovementioned definition, the use or authorization of such big data (qualified intangible assets) would be deemed as a licensing activity instead of a provision of service in Chinese Taipei.

However, as the list above for the in-scope intangible assets seems to be all-inclusive,

there is no determinative factor separating a transaction as licensing activity or provision of service. In principle, if the service is tailor-made and the pricing method is not charged by a subscription fee, the transaction is more likely to be deemed as a provision of service rather than licensing activity from a tax perspective. Nevertheless, whether a transaction is licensing activity or provision of service should very much depend on the terms and conditions specified under the transaction agreement.

For example, for big data transaction based on business models such as data feeds where enterprises with access to current streams of user data may allow access to or transfer some portion of that data to third parties for consideration, which may apply their analytics tools to the data if the data therein is referring qualified intangible assets such as other information regarding manufacture, sales or operation with practical or potential economic value, the behavior of authorization the use of such data is licensing activity in nature. Otherwise, if the data and its product are tailor-made for the customer, the transaction would be more like a provision of service in nature instead of a licensing activity from a tax perspective.

Provision of e-services

The tax authority in Chinese Taipei has issued a tax ruling on 2 January 2018, No. 10604704390 ("guidance on e-services"), defining that when an individual or enterprise outside Chinese Taipei renders the following electronic services ("e-services") for the receiver in Chinese Taipei, such services shall be regarded as services rendered in Chinese Taipei:

- (1) The services used are downloaded via the Internet and saved on computers or mobile devices for use.
- (2) The services are used online without being downloaded or saved on any device.
- (3) Other services used are supplied through the Internet or other electronic tools.

The legislative intent of such ruling is at targeting two types of business, i.e. the type "offering platform electronic services" and the type "offering non-platform electronic services (e.g., selling e-books, standardized software, online games, music and video, advertising, cloud storage, online courses, etc.)" The business models of the two types are described below:

A foreign profit-seeking enterprise "offering platform electronic services" (hereafter referred to as "foreign platform operator") establishes platforms on the Internet (online virtual stores) for both domestic and/or overseas buyers and sellers to conduct transactions via the Internet or other electronic devices as well as collect service fees from platform users.

On the other hand, a foreign profit-seeking enterprise "offering non-platform electronic services" (hereafter referred to as "foreign non-platform service provider") provides cross-border electronic services to purchasers in the following manners:

- (1) Selling e-services via the web-station set up by themselves and collecting sales amounts from buyers.
- (2) Selling e-services through foreign platform operators and collecting sales amounts directly from buyers; either buyers and/or sellers pay service fees to platform operators.
- (3) Selling e-services through foreign platform operators; platform operators collect sales amounts from buyers and transfer the remaining amounts after deducting their service fees to the aforesaid foreign non-platform electronic services providers.

In light of big data transactions, if certain big data analytics services (e.g. geographical mapping, weather prediction or consumer choice, where enterprises aggregate data and use predictive algorithms to provide services) are provided/operated via a website or foreign platform operators or other electronic devices to customers in Chinese Taipei, such services will be recognized as e-services under the guidance on e-services.

Furthermore, if the enterprises make a platform itself to facilitate the abovementioned big data transactions, the operation of such platform is also recognized as an e-service under the guidance of e-services.

Provision of services

For services rendered not being categorized as license activities or e-services, mostly the services based on the result of analytics or services indirectly facilitated by big data, such services would belong to provision of services from a Chinese Taipei tax perspective.

Nevertheless, as mentioned above, whether a transaction is licensing activity or provision of service should very much depend on the terms and conditions specified under the transaction agreement.

For example, enterprises analyze databases to support their consultancy work with the clients to improve their performance, if such service is charged for a one-time service fee, the transaction is a provision of service in nature rather than a licensing activity.

Provision of goods

For goods embedded with artificial intelligence that can perform certain analytical work such as a smart watch, the transaction in relation to the provision of these goods is considered as a provision of goods from a Chinese Taipei tax perspective.

1.3. Source

As the tax authority in Chinese Taipei could easily track all sales revenues of the companies in Chinese Taipei by the GUI system (i.e. the input and output tax credits filed by the buyer and the seller), the sourcing rule is mostly aimed at determining whether a foreign company will have a tax obligation/liability in Chinese Taipei and its corresponding WHT treatment. Consequently, after the categorization of the transactions in view of big data transaction from a Chinese Taipei tax perspective, we are going to understand the different sources and their respective tax treatments based on the sourcing rule under article 8 of the ITA in this section given foreign companies.

Generally, the nature of the income derived from licensing activity is royalty under the sourcing rule and would be subject to WHT at a default rate of 20% on the gross fee payment, which could be further reduced under the applicable bilateral tax treaty (please refer to section 2.2) if certain requirements are met.

If the transaction belongs to provision of e-service, the income generated therefrom is Chinese Taipei sourced income and a default WHT rate of 20% would be applicable with a 30% deemed profit rate and a 50% contribution ratio provided that there is no relevant evidence justifying the deemed profit rate and the contribution ratio. Such income could

be further exempt/reduced under certain tax schemes or the applicable bilateral tax treaty (please refer to section 2.2) if certain requirements are met.

Taxes under provision of e-services = Revenue x 30% (deemed profit rate) x 50% (contribution ratio) x 20% (default WHT rate)

The above deemed profit rate could be lower if relevant evidence of costs and expenses occurred is provided. In addition, the contribution ratio could also be lower as well once relevant evidence is provided justifying that the project is conducted outside Chinese Taipei.

On the other hand, if the transaction belongs to provision of service, the income generated therefrom is other income and a default WHT rate of 20% would be applicable with a deemed profit rate by the profit standard of the same trade concerned published by the tax authority. Such income could be further exempt/reduced under certain tax schemes or the applicable bilateral tax treaty (please refer to section 2.2) if certain requirements are met.

Taxes under provision of services = Revenue x Deemed profit rate (the profit standard of the same trade concerned) x 20% (default WHT rate)

For big data transactions in the form of provision of goods, if the goods are provided to the clients in Chinese Taipei directly, although the income derived is Chinese Taipei sourced income, the international trade rule would apply and no CIT implication on this transaction as a result.

For the four services above to big data transactions, their respective rules for the determination as Chinese Taipei sourced income are outlined as below:

Licensing activity

The royalty derived from qualified licensing activity (please refer to the definition of licensing activity in section 1.2) would be considered as Chinese Taipei sourced income if the qualified intangible assets are authorized to an individual or a company in Chinese Taipei.

Provision of e-services

For big data transactions qualified as offering platform electronic services or offering non-platform electronic services (e.g., geographical mapping, weather prediction or consumer choice, where enterprises aggregate data and use predictive algorithms to provide services) specified under section 1.2, the following shall be recognized as income from sourced in Chinese Taipei:

- Where a foreign profit-seeking enterprise produces or manufactures a product (e.g., stand-alone software, e-book, etc.) outside of Chinese Taipei, and after changing the method of presentation of the product, the enterprise transmits, downloads, and saves the product into a computer or mobile device via the Internet or other electronic means to offer electronic services to buyers within Chinese Taipei, the sales amounts collected therefrom are not regarded as income from sources in Chinese Taipei. However, if the product is provided with the assistance and involvement of a person or profit-seeking enterprise in Chinese Taipei, the sales amounts collected therefrom shall be recognized as income from sources in Chinese Taipei.
- Where, via the Internet or other electronic means, a foreign profit-seeking enterprise offers real-time, interactive, handy, and continuing electronic services (e.g. including

certain products resulting from big data analytics) to domestic buyers within Chinese Taipei, the sales amounts collected therefrom shall be recognized as income from sources of Chinese Taipei.

- Where, via the Internet or other electronic means, a foreign profit-seeking enterprise selling services which are delivered by physical locations (e.g., accommodation services, automobile renting services) and the locations of delivering services or running the business are outside of Chinese Taipei, pursuant to subparagraphs 3 and 9, article 8 of the ITA, the sales amounts collected therefrom are not regarded as income from sources in Chinese Taipei, whether or not it is through the assistance of a foreign platform operator.
- Where a foreign platform operator provides an Internet-based platform on which onshore and offshore sellers and buyers conduct transactions if one of the transaction parties is a person, profit-seeking enterprise, organization, institution, or entity within Chinese Taipei, the sales amounts collected from the seller and buyer shall be recognized as income from sources in Chinese Taipei.

Unless one of the following exceptions is met, the remuneration of e-services is considered as Chinese Taipei sourced income:

- (1) The electronic service (e.g., stand-alone software and e-book) produced or manufactured outside Chinese Taipei is transmitted, downloaded, and saved into a stand-alone computer or mobile device via the Internet or other electronic means, and without the involvement or assistance of a party in Chinese Taipei.
- (2) The electronic service sold via the Internet or other electronic means has its physical location outside Chinese Taipei to offer the service.

Provision of services

For companies, remuneration for services rendered within Chinese Taipei will be considered as Chinese Taipei sourced income if one of the following circumstances is met:

- (1) The provision of services is completely conducted and finished in Chinese Taipei.
- (2) The provision of services must be conducted both inside and outside Chinese Taipei.
- (3) The provision of services is rendered outside Chinese Taipei. Nevertheless, an individual in Chinese Taipei or the assistance of a company in Chinese Taipei is required to complete such service.

Services being rendered could be considered as non-Chinese Taipei sourced income only if the entire services are conducted outside Chinese Taipei and one of the following circumstances is met:

- (1) The enterprise providing such service does not have a fixed place of business or a business agent in Chinese Taipei.
- (2) The enterprise providing such service has a business agent in Chinese Taipei, but the provision of service is without any participation/assistance provided by that business agent.
- (3) The enterprise providing such service has a fixed place of business in Chinese Taipei, but such fixed place of business does not participate/assist in the provision of service.

Generally, the remuneration for provision of services is considered as Chinese Taipei sourced income, as the burden of proof regarding the remuneration for services rendered to customers in Chinese Taipei that is completely conducted outside Chinese Taipei, is on the enterprise which provides the service and the tax authority would scrutinize the transaction accordingly. In practice, it would be difficult to claim that the remuneration for the services provided to customers in Chinese Taipei is not a Chinese Taipei sourced income.

Provision of goods

According to paragraph 10 of the Guidelines for the Determination of Income from Sources in the Republic of China prescribed by article 8 of the Income Tax Act, sales of goods from foreign corporations to parties in Chinese Taipei are subject to general international trade rules (that is, the remuneration therein is exempt from tax) under one of the circumstances below:

- (1) The offshore headquarter of a foreign corporation sells goods to customers within Chinese Taipei directly.
- (2) In case a foreign corporation sells non-customized standard software, including shrink-wrap software downloaded via Internet and installed in the hardware of computer or written on the disk, packaged software or other standard software to buyers in Chinese Taipei directly or via corporation in Chinese Taipei (not sales agent), the buyer or corporation in Chinese Taipei is not allowed to copy, modify or publicly display the software.
- (3) A foreign corporation without permanent establishment or business agent sells goods to the buyer in Chinese Taipei through the Internet outside Chinese Taipei and the buyer declares and picks up the goods directly.

If the foreign company sells goods, which are ready for use upon arrival, directly to customers located in Chinese Taipei and customers are the importer of records, the transaction is treated as international trade and not subject to Chinese Taipei CIT.

In light of big data transactions, provided that a foreign company sells data to a buyer in Chinese Taipei by means that the buyer imports the standardized software with the data incorporated in it or goods embedded with result of analytics, such transactions shall be recognized as the import of goods qualified by the international trade rules and are exempt from CIT.

1.4. Nexus

There is no special nexus rule that applies to data transactions in Chinese Taipei. Unlike the “significant digital presence” tax nexus test in some countries, if the services rendered, e.g. data transaction is regarded as electronic service and does not meet the exclusion in the Guidelines for the Determination of Income from Sources in the Republic of China under article 8 of the Income Tax Act, the income from such data transaction shall be recognized as the income sourced from Chinese Taipei.

But when sales of electronic services by a foreign company are recognized as Chinese Taipei sourced income, the foreign company may apply for the deduction of corresponding costs and calculate the domestic contribution to the total profit according to the domestic

transaction process of Chinese Taipei to compute the actual taxable income in Chinese Taipei.

1.5. Conclusion

In summary, big data transactions could be generally categorized as four forms of activity including licensing activity, provision of e-services, provision of services and provision of goods depending on the nature of the transaction and would be subject to different determination rules of Chinese Taipei sourced income from a Chinese Taipei tax perspective.

To determine whether the remuneration derived from a big data transaction is Chinese Taipei sourced income unless the services provided are as a whole physically conducted outside Chinese Taipei or the goods rendered to meet the international trade rules, generally, the remuneration for big data transactions is Chinese Taipei sourced income and thus would be subject to WHT (for foreign companies) at a default rate of 20% (different deemed profit rates and contribution rules would apply for provision of e-service and service).

Part Two: Application of treaty principles

2.1. General overview

Chinese Taipei has now signed bilateral tax treaties with 33 countries. Most of the signed treaties follow the OECD Model and some of them are sort of a combination of the OECD Model and the UN Model.

Given big data transactions, the OECD Model and the UN Model differ in article 12, where in addition to article 12 related to royalties both in the OECD Model and the UN Model, the UN Model also specifies article 12A to the application of reduced WHT rate for fee for technical services. In other words, both the OECD Model and the UN Model treat royalties the same as passive income (e.g. dividend and interest) which the sourcing country has the right to tax at such income and a reduced WHT rate could be applied once certain requirements are met. However, for e-services and services in relation to big data transactions, under article 12A of the UN Model, if the e-services and services in question are considered as technical services, the UN Model also treats such income derived therefrom as passive income for which the sourcing country also has the taxing right first and a reduced WHT rate could be applied once certain requirements are met afterwards.

On the other hand, for services not qualified as technical services under the UN Model as well as both e-services and services under the OECD Model, article 7 – business profit of the bilateral tax treaty should apply. If the services in question are carried out without a permanent establishment in another country, that country should not have the taxing right regarding the income derived by the services in question.

2.2. Detailed comments

Licensing activity

As the royalty derived from qualified licensing activity (please refer to the definition of licensing activity in section 1.2) would be considered as Chinese Taipei sourced income, it would be subject to WHT at a default rate of 20% on the gross fee payment according to domestic law.

Under both OECD and UN models of tax treaties, provided that the licensing activity is irrelevant to a permanent establishment in another country, the reduced WHT rate could be applied once the applicant prepared the relevant certificates of resident, licensing agreement and statement of beneficial ownership justifying its eligibility for the article of royalties.

Provision of e-services

The profit derived from both e-services and services would be generally considered as Chinese Taipei sourced income unless certain exception rules are met. According to domestic law, such profit would be subject to WHT at a default rate of 20% on the gross fee payment as a result.

Since there is no difference between profits derived from provision of e-services, services and provision of goods under tax treaties by the OECD Model, the profits therefrom are considered as business profits and will be taxed according to article 7 – business profit of the OECD Model tax convention. Unlike the OECD Model, the UN Model has article 12A – fee for technical services aimed at targeting certain profits derived from qualified technical services. The profits derived therefrom are subject to a WHT at source first and could be further reduced if certain requirements are met under article 12A of the UN Model tax convention. For other big data transactions not qualified as technical services under article 12, article 7 – business profit would apply to the profit derived therein and if relevant requirements are met, such profit could be exempt from CIT.

For the OECD Model, we use the tax treaty between the Netherlands and Chinese Taipei to elaborate on the correlation above and the content of article 7 of such tax treaty is outlined as below:

Article 7 of the tax treaty under the OECD model (tax treaty between the Netherlands and Chinese Taipei used as an example below)

– Paragraph 1

The profits of an enterprise of a territory shall be taxable only in that territory unless the enterprise carries on business in the other territory through a permanent establishment situated therein. If the enterprise carries on business as aforesaid, the profits of the enterprise may be taxed in the other territory but only so much of them as is attributable to that permanent establishment.

– Paragraph 7

Where profits include items of income that are dealt with separately in other articles of this Agreement, then the provisions of those articles shall not be affected by the provisions of this article.

Under paragraph 7 of article 7 of this tax treaty, provided that the profits derived from big data transactions are not licensing activities, article 7 – business profit would apply. If that is the case, the big data transactions therein would be eligible to be exempt from CIT once there is no permanent establishment being constituted during the provision of services/goods under paragraph 1 of article 7.

For the UN Model, we use the tax treaty between India and Chinese Taipei to elaborate on how the big data transactions other than licensing activities will be taxed under the UN Model and the contents of article 12 and article 7 of such tax treaty are outlined as below respectively:

Article 12 of the tax treaty under the UN model (tax treaty between India and Chinese Taipei used as an example below)

– Paragraph 1

Royalties or fees for technical services arising in a territory and paid to a resident of the other territory may be taxed in that other territory.

– Paragraph 2

However, such royalties or fees for technical services may also be taxed in the territory in which they arise, according to the laws of that territory, but if the beneficial owner of the royalties or fees for technical services is a resident of the other territory, the tax so charged shall not exceed 10 per cent of the gross amount of the royalties or fees for technical services

– Paragraph 3

The term “royalties” as used in this article means payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films or films or tapes used for television or radio broadcasting, any patent, trademark, design or model, plan, secret formula or process, or for the use of, or the right to use, industrial, commercial or scientific equipment, or for information concerning industrial, commercial or scientific experience.

The term “fees for technical services” as used in this article means payments of any kind, other than those mentioned in articles 14 and 15 of this Agreement as consideration for managerial or technical or consultancy services, including the provision of services of technical or other personnel.

Consequently, under paragraph 2 of article 12 of the tax treaty between India and Chinese Taipei, fees for technical services are treated in the same way as royalties (i.e. a reduced WHT rate would be applicable under paragraph 2 of article 12 as long as there is no permanent establishment involved in the transaction and relevant certifications of resident and statement of beneficial ownership are provided). A reduced 10% WHT rate

could be applied under paragraph 2 of article 12 if there is no permanent establishment involved during the transaction and relevant certification of resident and beneficial owner statement are provided.

For services not qualified as technical services under article 12 of the tax treaty between India and Chinese Taipei, article 7 of the same tax treaty should apply further according to paragraph 7 of article 7 and the contents of article 7 of the tax treaty between India and Chinese Taipei are outlined as below:

Article 7 of the tax treaty under the UN model (tax treaty between India and Chinese Taipei used as an example below)

– Paragraph 1

The profits of an enterprise of a territory shall be taxable only in that territory unless the enterprise carries on business in the other territory through a permanent establishment situated therein. If the enterprise carries on business as aforesaid, the profits of the enterprise may be taxed in the other territory but only the profits that are attributable to that permanent establishment.

– Paragraph 7

Where profits include items of income that are dealt with separately in other articles of this Agreement, then the provisions of those articles shall not be affected by the provisions of this article.

The application of article 12 of this treaty would prevail the application of article 7 of such treaty according to paragraph 7 of article 7. The big data transactions would be eligible to be exempt from CIT once there is no permanent establishment being constituted/involved during the provision of services/goods under paragraph 1 of article 7.

Provision of services

Please refer to the above provision of e-services section.

Provision of goods

For big data transactions to provision of goods, as mentioned in section 1.3, if the foreign company sells goods, which are ready for use upon arrival, directly to customers located in Chinese Taipei and customers are the importer of records, the transactions are treated as international trade and not subject to Chinese Taipei CIT as a result. In such case, there is no need to apply for tax treaty as Chinese Taipei does not impose tax on such big data transactions in the first place. However, in the case where the international trade rule is breached and the profits therefrom are taxable, the profit derived therefrom is business profit in nature from a treaty perspective and the comments in the e-services section would apply. Please refer to the above section on provision of e-services for more information.

To sum up, besides the licensing activity, provision of services and goods is generally

exempt from CIT if there is no permanent establishment being constituted/involved during the transaction under the tax treaty of the OECD Model. Under the UN Model, as the income derived from technical services will be treated the same as royalties, big data transactions qualified as technical services will be treated just as licensing activity. That is to say, the income derived therein could enjoy the reduced WHT rate according to the applicable tax treaty. Services other than technical service would be exempt from tax under the article of business profit of the applicable tax treaty if there is no permanent establishment being constituted/involved during the transaction.

Part Three: Transfer pricing

Pursuant to article 43-1, Income Tax Act, a company which has an affiliated relationship with, or is directly or indirectly owned or controlled by another company within or outside the territory of Chinese Taipei, whereof, if it is found that the arrangement of their mutual income, cost, expense, profit or loss distribution does not conform with regular business practice and, hence, results in tax evasion or reduction, the tax authority, to compute the accurate income, may report to the Ministry of Finance for approval in effecting an adjustment by the regular business practice.

According to article 5 of the Regulations Governing Assessment of Profit-Seeking Enterprise Income Tax on Non-Arm's Length Transfer Pricing, the types of transactions governed by the transfer pricing regulations are defined as follows:

- Transfer of tangible assets: including sale, exchange, gift or other arrangements;
- Use of intangible assets: including license and sub-license provided for others' use or other arrangements;
- Rendering of services: including marketing, management, administration, technology, personnel, R&D, information processing, legal, accounting or other services.

Therefore, any data transaction, regardless of nature, shall be subject to transfer pricing regulations in Chinese Taipei. If the data transaction occurs between the related parties, emphasis should be placed on the authenticity and rationality of the transaction to identify whether the data buyer is the beneficial owner of the use of the intangible asset or services while determining the transaction price.

Arm's-length methods

According to articles 10 to 12 of the Regulations Governing Assessment of Profit-Seeking Enterprise Income Tax on Non-Arm's-Length Transfer Pricing, the applicable arm's length methods in connection with different types of transaction are defined as follows:

Transfer and use of tangible assets

1. Comparable Uncontrolled Price Method
2. Resale Price Method
3. Cost Plus Method

4. Comparable Profit Method
5. Profit Split Method
6. Other Arm's-length methods approved by the MOF

Transfer and use of intangible assets

1. Comparable Uncontrolled Transaction Method
2. Comparable Profit Method
3. Profit Split Method
4. Other arm's length methods approved by the MOF

Services rendered

1. Comparable Uncontrolled Price Method
2. Cost Plus Method
3. Comparable Profit Method
4. Profit Split Method
5. Other Arm's-length methods approved by the MOF

If a data transaction involves the transfer of intangible assets, e.g. licensing by a foreign company to a company in Chinese Taipei, the revenue derived from the entire business should be allocated to group entities in and out of Chinese Taipei. The portion of revenue that attributes to the abovementioned foreign company should be the same portion it would have earned at arm's length if it was an independent enterprise engaged in similar activities, taking into account the DEMPE (Development, Enhancement, Maintenance, Protection, Exploitation and Promotion) function the foreign company performs.

Considering that data transaction is a relatively new way of transaction, in the absence of comparable transactions, the comparable uncontrolled transaction method may be difficult to apply. Furthermore, since it is sometimes hard to draw a line between data provision and service rendered, the cost-plus method may also be inappropriate. Therefore, the profit split method may be more appropriate in determining the profit to the foreign company.

Part Four: Special regimes

4.1. General overview

The purpose of this section is to identify special regimes that might apply to the development and sale of big data-enabled goods or services and identify and discuss three major tax rulings: Digital Service Tax (DST), Incentives Treatment, and Barter Treatment.

4.2. DST

According to earlier literature on this topic, the term “DST” is gross revenue tax with a tax base that includes revenue derived from a specific set of digital goods or services or based on the number of digital users within a country. In Chinese Taipei, there is no tax literally like “digital service tax”. However, the government has imposed both corporate income tax (“CIT”, as discussed in Part One: Basic Principles: Character, Source and Nexus) and value-added tax (“VAT”).

For further discussion on taxation of CIT and VAT, please refer to section 2 and section 6 for more information.

4.3. Incentives

In addition, tax incentives are another significant part of the tax ruling regime. The Chinese Taipei tax jurisdiction provides research and development (R&D) tax credits that would be applicable to big data development and exploitation. According to article 9, Chapter three – Grants or Guidance for Innovation Activities of the Statute for Industrial Innovation, the central authorities in charge of the enterprises may provide grants, incentives, or guidance to encourage the use of big data and open government data to develop and innovate commercial applications or service models. Also, article 10-1 of Chapter three – Grants or Guidance for Innovation Activities, the Statute for Industrial Innovation, states that for the purpose of optimizing the industrial structure and encouraging domestic industries to upgrade to smart technology and design multiple innovations and applications, where a company or limited partnership has not committed a severe violation of the environmental protection, labor, or food safety or sanitation laws in the past three years, and has invested in *brand new “smart machines” – machines utilizing intelligence technology elements embodied in big data, artificial intelligence, the Internet of things, robots, lean management, digital management, clicks and mortar, additive manufacturing or sensors, and having the intelligent functions of production data visualization, fault prediction, accuracy compensation, automatic parameter setting, automatic control, automatic scheduling, application service software, flexible production, or mixed-model production* – for its own use between 1 January 2019 and 31 December 2021 and spending a total of TWD 1 million up to TWD 1 billion in the same taxable year, the company or limited partnership may select one of the following incentives for crediting the funds invested against the profit-seeking enterprise income tax payable in the tax year. Once the company or limited partnership selects an incentive, it cannot change its selection, and the credit amount shall not exceed 30% of the profit-seeking enterprise income tax payable in the then-current year.

1. Up to 5% of the annual spending sum may be credited against the profit-seeking enterprise income tax payable in the then-current year.
2. Up to 3% of the annual spending sum may be credited against the profit-seeking enterprise's income tax payable in each of the three years from the then-current year.

Where a company or limited partnership is eligible for the investment credit under the preceding paragraph and other types of investment credit in a year, the total amount creditable in that year shall not exceed 50% of the profit-seeking enterprise income tax payable in the then-current year, unless the then-current year is the final year for using such credit and no cap is imposed on the creditable amount for that year according to other laws.

However, these tax incentives are not applicable if the company applies for another tax treaty.

4.4. Barter treatment

Generally, all goods and services sold in or imported into Chinese Taipei are subject to a VAT of 5% under the Business Tax Act. VAT is generally collected and paid by the seller on behalf of the purchaser at the time of sale, although the buyers of services provided by foreign businesses without a fixed place of business in Chinese Taipei are, in principle, obligated to voluntarily pay VAT to the tax authority. A seller's VAT obligation is tracked by the GUI that must be issued to the purchaser at the time of sale.

According to article 3, Chapter 1 General Provisions of the Value-added and Non-value-added Business Tax Act, the definition of sale of services is the supply of services to others or the provision of goods for the use of others for consideration with the exception of professional services offered by practitioners and services rendered by individuals in employment.

Any one of the following circumstances shall be deemed as the sale of goods:

1. Goods produced, imported or purchased by a business entity for sale however used by itself or transferred to others for no consideration;
2. Goods used to redeem debt or distributed to shareholders or investors and stock leftover when a business entity is dissolved or nullified;
3. Where a business entity purchases goods under its own name on behalf of a third party and delivers the goods to the third party;
4. Where a business entity consigns goods to others for sale;
5. Where a business entity sells the consigned goods.

As a result, a foreign company providing digital service to a company in the Chinese Taipei tax jurisdiction free of charge constitutes a barter transaction theoretically and is therefore subject to VAT. The receiver of the service is the VAT withholding agent. In the meantime, if the services rendered are used solely in conducting business in taxable goods or services, such services are exempted from VAT as the sales occurred for the service receiver afterwards will be taxed accordingly.

Part Five: Indirect tax

Incidence of Taxation

According to article 4 of the Value-added and Non-value-added Business Tax Act, where services sold are supplied or utilized within Chinese Taipei, it is recognized as the sale of service in Chinese Taipei and is subject to business tax. Also, according to article 6 of the Act, the company having no fixed place of business in Chinese Taipei and engaging in the sales of electronic services to domestic individuals, bears the obligation to file and settle the business tax payment.

According to article 4-1 of the Enforcement Rules of Value-added and Non-value-added Business Tax Act, the definition of "electronic services" is consistent with the one being

defined under the Income Tax Act mentioned previously, which are in conformity with one of the following conditions:

1. The services used are downloaded via the Internet and saved to computers or mobile devices (such as smartphones, tablet computers, etc.) for use.
2. The services are used online without being downloaded and saved into any devices including the services used in digital forms, such as online games, advertisements, audio-visual browsing, voice frequency broadcasting, information contents (such as movies, soap operas, music, etc.) and iterative communications.
3. Other services used are supplied through the Internet or other electronic tools, for example, the services are supplied through the online platforms set up by a foreign profit-seeking enterprise and used at a physical location.

According to article 2 of the Ministry of Finance Decree Tai-Cai-Shui-Zi No. 09404532300, companies designing a website, or renting an online store or becoming a member of an online service provider to sell goods or services, are subject to business tax. The definition of selling goods or services on the Internet includes:

Use of the Internet to accept the intangible goods ordered by the Internet users, and then provide services through the physical channels or download and store the content directly through the Internet transmission to buyer's computer device for use, or not for storage, and use the content in digital forms such as online services, video and audio browsing, interactive communication, online games, etc., but without storing in the buyer's computer.

According to the interpretation from the Ministry of Finance, for the foreign entities transferring trademarks, patents, and franchises to the receivers in Chinese Taipei, since the rights being transferred are used within Chinese Taipei, they belong to "the sales of services in Chinese Taipei" and shall be subject to business tax. Furthermore, the Ministry of Finance explained that this interpretation is derived from the International VAT/GST Guidelines, which was published by the OECD in 2014.

As a result, unlike the ambiguity of definition under the Income Tax Act, data transaction by a foreign company to a buyer in Chinese Taipei is generally accepted to be regarded as a service provision and is therefore subject to business tax under the current VAT regulation.

Tax Registration

According to article 28-1 of the Value-added and Non-value-added Business Tax Act, and the Ministry of Finance Decree Tai-Cai-Shui-Zi No. 10604539420, a foreign company having no fixed place of business in Chinese Taipei engaged in selling e-commerce services to individuals in the Chinese Taipei tax jurisdiction is obligated to have a tax registration or appoint a tax filing agent in Chinese Taipei to meet the VAT compliance requirements, provided that its annual sales exceed the promulgated threshold of TWD 480,000. In contrast to the other types of foreign businesses with no presence in Chinese Taipei, the businesses engaged in e-commerce and selling electronic services to domestic individuals have a legal obligation to pay tax.

Exemption Mechanism

Notwithstanding the above regulation, according to article 36 of the Value-added and Non-value-added Business Tax Act, where the service purchaser is a business entity, if the purchased services are used solely in conducting business in taxable goods or services, such services are exempted from VAT, as the sales occurred for such business entity afterwards, will be taxed at a 5% VAT accordingly.

Part Six: Tax accounting

6.1. Recognition of revenue

The Enterprise Accounting Standards, No.10 Revenue, provides general guidelines on revenue recognition based on the nature of transaction.

Service

According to the Enterprise Accounting Standards, if the transaction resulting from providing service can be estimated reliably, the revenue shall be recognized according to the stage of completion on the reporting date. The result of the transaction can be estimated reliably, which must meet all the following conditions:

1. The amount of revenue can be measured reliably;
2. It is probable that the economic benefits related to the transaction will flow to the company;
3. The stage of completion at the balance sheet date can be measured reliably;
4. The contract cost can be clearly identified and measured reliably.

If the labor service is performed in a specific period, but the amount of service is uncertain, the revenue shall be recognized by the straight-line method in the given period.

Hence, when a data transaction is regarded as the provision of electronic service, upon signing-off of the agreement of data provision, the income can be expected reliably and the revenue shall be recognized correspondingly, either by the degree of completion of the contract or by adopting the straight-line method.

Royalty

According to the Enterprise Accounting Standards, the company shall recognize revenue when the following conditions are met for the royalty generated from the use of assets by others:

1. It is probable that the economic benefits related to transactions will flow to the company; and
 2. The amount of revenue can be measured with reliability.
- The revenue from royalty shall be recognized on an accrual basis by the substance of the agreement.

When the income is derived from data transactions being regarded as royalty, revenue shall be recognized based on the agreement, usually following the payment schedule of the agreement.

Goods

According to the Enterprise Accounting Standards, revenue from the sale of goods shall be recognized when all the following conditions are met:

1. The material risks and rewards of ownership of the goods have been transferred to the other party;
2. It does not continuously participate in the management or maintain effective control over the sold goods;
3. The income can be measured reliably;
4. The economic benefits related to the transaction are likely to flow into the enterprise;
5. The costs incurred or to be incurred in connection with the transaction can be measured reliably.

If the data is acquired by companies in Chinese Taipei in the form of standardized software, it will be recognized as importation and the foreign seller of the data shall recognize revenue based on the above standards.

6.2. Cost deduction

6.2.1. Accounting treatment of foreign data seller

Service

According to article 4 of the Ministry of Finance Decree Tai-Cai-Shui-Zi No. 10604704390, in case of a foreign company selling cross-border electronic services, their income from sources in Chinese Taipei may be eligible for the following deductible costs and expenses, and their taxable income in Chinese Taipei shall be calculated based on the applicable profit contribution ratio.

Deductible costs and expenses

- (1) Where the accounting books and documents are provided, the taxable income amount shall be the verified profit from sources in Chinese Taipei after the deduction of related costs and expenses.
- (2) Where the accounting books and documents are not available, but contracts, major business items, onshore and offshore transaction flows, and other sufficient evidence are provided allowing the tax authority to verify the applicable major business item(s), the taxable income shall be calculated as the gross revenue from sources in Chinese Taipei multiplied by the net profit ratio of the profit standard of the same trade concerned applicable to the foreign company.

- (3) For a foreign company not meeting the above (1) and (2), the taxable amount shall be calculated based on a net profit ratio of 30%.

Taxable income

Where a part of the transaction process of a company selling cross-border electronic services takes place outside of Chinese Taipei, the profit contribution ratio from Chinese Taipei (“domestic profit contribution ratio”) shall be determined by the following:

- (1) Where the company can provide documents supporting a clear division of the onshore and offshore transaction flows as well as the ratio of the contribution attributed to the services performed in Chinese Taipei (such as the financial statements audited and certified by CPAs, transfer pricing documentation, work planning records or reports, etc.), its domestic profit contribution ratio shall be determined based on the supporting documents provided.
- (2) Where the complete transaction flow is onshore or the provision and use of services are both in Chinese Taipei, the deemed domestic profit contribution ratio is 100%.
- (3) For a foreign company not meeting the above (1) and (2), its domestic profit contribution ratio shall be 50%. However, if the actual domestic profit contribution ratio verified by the taxation authority is higher than 50%, then the actual domestic profit contribution ratio shall be applied.

To adopt the deemed profit ratio and contribution ratio in the calculation of taxable income, pre-approval from the tax authority is required.

Royalty

Article 50 of the Business Entity Accounting Act provides that for purchased goodwill, trademarks, patents, copyrights, franchises, and other intangible assets, the cost incurred must be the acquisition cost. If the intangible assets are self-developed, only the cost for registration or finished creative work can be recorded as the acquisition cost. According to article 60 of the Income Tax Act, the cost of intangible assets shall be amortized in equal annual instalments by the prescribed number of years of amortization.

Therefore, if the data transaction is regarded as a transfer of the rights of intangible assets, relevant costs shall be eligible for the purpose of CIT deduction and shall be allowed to be amortized based on the number of years of using such rights.

However, since it is difficult for a foreign company to provide supporting documents, e.g. financial accounts associated with the transaction, deduction for income tax purpose may be denied by the tax authority.

6.2.2. Accounting treatment of domestic data buyer—Capitalization and amortization

If the cost relevant to data purchasing is in connection with the data buyer’s production or business operation, the cost shall be deductible for income tax purposes. Depending on the nature of the transaction and legal supporting documents, the buyer may amortize the cost over either the usage life of the intangible asset acquired or the duration of the service

provided. If the data transaction is in the form of importation, the cost can be deducted as a lump sum expense.

6.3. Special requirement

There are discussions between countries about the attribution of international tax profits (Pillar one). Since this is still under discussion and Chinese Taipei has its tax regulations for e-commerce, there are no specific requirements for recording the accounting profits of multinational companies in Chinese Taipei, such as a compulsory requirement to divide the revenue by different business unit, or to calculate the revenue attributed to “marketing intangible assets”.

Part Seven: Other

N/A

Part Eight: Reference Case Studies

8.1. Data brokers / Information resellers

Considering a foreign enterprise that gathers data from various sources and sells copies of data sets to customers in Chinese Taipei, as discussed in 2.2, the payment made from customers to the foreign enterprise should be considered Chinese Taipei sourced income.

The data gathered needed to be organized and structured by the foreign enterprise. Although the customers may set parameters to define the data sets they purchase, the foreign enterprise organized and structured the data in a relatively standard manner and does not engage in many customized efforts for the user, therefore it is more likely to be considered a royalty, provided that the data being authorized therein is derived from qualified intangible assets as specified under section 1.2. A 20% default WHT rate would apply upfront when the payment is made and a reduced WHT rate could be applied if certain conditions are met under applicable tax treaties.

Lack of ownership of the property interest in the data does not affect the taxation of royalty income. On the other hand, concerning the purchase of data from outside source, since the foreign company as well as the vender is outside of Chinese Taipei, and no tax nexus exists for the foreign vender with Chinese Taipei residency, there will be no Chinese Taipei income tax effect.

After purchase of the data, the foreign enterprise may recognize such purchase as an intangible asset and amortize it over the usage life of the data, which is acceptable for the Chinese Taipei tax authorities.

8.2. Data feeds

As mentioned in 1.3, when a foreign animal migration relevant data provider provides data to a Chinese Taipei company and charges a monthly fee, the fee paid by the Chinese Taipei company will be considered Chinese Taipei sourced income and be subject to income tax as a royalty provided that the data being authorized therein is derived from qualified intangible assets as specified under section 1.2. On the other hand, if the data provider does not charge the Chinese Taipei company any fee but has the Chinese Taipei company supply the data provider personally identifiable data relating to visitors to the website in return, it constitutes a barter transaction – the provision of data shall be deemed as sales of goods/service, and the revenue shall be the fair value of the personally identifiable data provided by the Chinese Taipei company. Therefore, in addition to the CIT borne by the data provider, it is also subject to VAT in Chinese Taipei of 5%.

For the subscription of the information, it is similar to the Data Brokers case, since the foreign data provider gathered the data by itself, and the data is not tailor-made for the Chinese Taipei company, the fee paid will be subject to income tax as a royalty. A 20% default WHT rate would apply upfront when the payment is made and a reduced WHT rate could be applied if certain conditions are met under applicable tax treaties.

8.3. Performance data analytics

In the performance data analytics case, although the foreign company has developed data analytics tools, and it uses the tools in analyzing the data collected from the sensors installed in the equipment located at the domestic company without human participation, the analytic service provided to the users is based on the condition of each equipment and it could be considered the nature of the service is tailor-made.

Furthermore, the data analytics service is provided for a certain period, e.g. several years after the purchase of the equipment. The service provided in different years is based on the analytical result of the particular year, therefore it cannot be considered the same in different years. As a result, the income from abovementioned is regarded as service instead of royalty.

If the foreign company conducts such a service in Chinese Taipei without the formation/participation of a permanent establishment, the income could be exempt if applicable tax treaties exist. Otherwise, it is subject to WHT at a default rate of 20%.

On the other hand, if the data analytics tools are embedded in goods to be sold to clients in Chinese Taipei directly, international trade rules should apply in such transaction and the income generated therefrom is exempt from CIT.

8.4. Analytics based consultancies

The case of Analytics-Based Consultancies is similar to the case of Performance Data Analytics, while the consultancy service provided by the foreign company is based on the data accumulated domestically, the company can still argue that the service is customized for the particular user. The determination of the nature of the service depends greatly on the ways and extent the data is used during the service-rendered process and the service scope of the consultancy.

As mentioned, if the foreign company allows third parties to subscribe an access right to the database, where such database constituted as one of the qualified intangible assets, the subscription fee is subjected to Chinese Taipei income tax and should be considered as royalty. A 20% default WHT rate would apply upfront when the payment is made and a reduced WHT rate could be applied if certain conditions are met under applicable tax treaties.

Summary and conclusions³

The report reveals an important restriction to the treatment of personal data, from both a legal perspective and a jurisprudential one. In addition, the property rights related to data processing (storage and processing) are regulated only by intellectual property protection laws. It can be said that there is no specific regulation on big data.

Attempts at tax regulation are minimal. One of these, of national application, regulates the cloud computing service. This service has several uses but can be implemented as a mechanism for transactions with big data to the extent that it would facilitate the collection and storage of unstructured information and the availability of databases. The Colombian Tax Statute (TS) includes regulations on the orange economy and on technological, scientific and innovation development projects. These could be applied to transactions with big data, although this is not their specific purpose.

The other attempt at regulating big data in Colombia has been implemented at municipal level, specifically in Medellín, which has focused on obtaining, storing, and processing data. This regulatory model is the only one in Colombia specifically designed for transactions involving data.

This report consists of six parts, which make up a proposed tax framework applicable to big data transactions in Colombia. This is only a proposal, since Colombian regulations in this area are only incipient, and the existing ones predate the tensions and problems caused by the issue.

In the first part, we explain how operations with big data can be understood; that is, we attempt to identify their nature and to determine the source of the payments in these operations and whether there are any instruments that enable the establishment of the link between these. The main conclusion is that, strictly speaking, these operations would be classified either as a cloud computing service (national)—whose source of payment would always be the national territory regardless of where the user is located—or as data collection, storage, and processing operations (municipal), whose source of payment would be Medellín, provided that the user is domiciled or makes use of the service through an Internet Protocol address (hereafter IP) there. Furthermore, the regime of permanent establishment in Colombia does not include “virtual” or “digital” concepts.

In the second part, we describe how the concepts of nexus, source, and permanent

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establishment are regulated in international treaties, as well as the treatment of operations that could catalogue transactions with big data. We highlight that the only possible way to address the issue of big data in light of the treaties is through the concept of royalty, as it includes all payments generated by intellectual property rights, as well as those pertaining to technical assistance, consulting, and technical service.

We address transfer pricing in the third part. In 2012, Colombia implemented a general pricing regime that has not been updated to address transactions with big data. The TS establishes that transfer prices will fail to apply only when some type of subordination is configured (subordinates, subsidiaries, agencies, branches, among others), but it also includes, within the same regime, business collaboration contracts, which are free of structural subordination.

In the fourth part, we develop the incentives for operations with big data and the special municipal regime of the industry and commerce tax. In particular, we analyse income tax exemption for activities in the orange economy. It also explains the tax credit in favour of scientific, and technological development and innovation projects, recently regulated by the national government.

In relation to indirect taxes, in part five, we refer to the treatment of sales tax (VAT) for cloud computing and digital services provided from abroad. In particular, we explore the regulatory framework that determines the requirements for collecting VAT, as well as the mechanisms that have been established so that the tax is withheld by national companies for payments made by Colombian residents to providers that are not domiciled in the country.

In the last part, we discuss the rules for the accounting record of transactions with big data, as well as the journal entry for depreciation. Colombia is governed by the International Financial Reporting Standards (IFRS), which do not establish a special treatment for such records.

The above is preceded by an introduction in which we present the commercial regulatory framework related to transactions with big data, as well as the way in which personal data is protected in Colombia. Also, given that information is collected, stored, structured and used through computer components (hardware and software), we also discuss how the creation of these media is protected by intellectual property law. We conclude that these regulatory frameworks are insufficient for the treatment of big data because their enactment precedes the difficulties and tensions that arise.

Finally, we present three of the hypothetical cases suggested by the general reporter for the application of the big data tax regulatory framework in Colombia explained in this report.

Introduction: Legal background

A public policy document on big data was issued in Colombia in 2018 by the National Council of Economic and Social Policy (CONPES).⁴ This document is not binding in the national legal system, but it highlights three advantages: (i) It recognizes big data as an

⁴ CONPES, *Política Nacional de Explotación de Datos: Big Data (Document 3902)* (National Planning Department (DNP), Bogotá: 2018).

element of economic and social development in Colombia; (ii) it identifies the challenges for the Colombian regulatory system produced by the potential economic and commercial development of big data; and, (iii) it establishes and articulates the current regulations that could be related to the commercial and economic development of big data. However, one of its defects is that it does not address the possible tax regulation related to the subject.

Along with the previous document, CONPES has developed public policy documents related to digital issues. One, regarding digital transformation and artificial intelligence,⁵ seeks “the generation of social and economic value in the country through the strategic use of digital technologies”.⁶ This document does not address the tax challenges posed by digital progress. The second, which relates to e-commerce, is currently being socialised for feedback.⁷ In this regard, it is important to emphasize that, on the one hand, it seeks to potentialize “Big Data and artificial intelligence (...) to optimize and improve its processes”,⁸ but it only provides a tangential statement on the tax challenges related to e-commerce, focusing exclusively on customs issues, aspects that go beyond the scope of this report, since transactions with big data would overcome any customs barrier.

For CONPES, the mass production of data is an essential element for economic and social development in Colombia. The collection, systematisation and use of information—which has been termed “data exploitation”—makes it possible to improve or create processes, products and services, thus contributing to the solution of academic, business, and citizens’ problems.⁹ This vision is inspired by Law 1753 of 2015, which recognised the economic and social potential of big data.¹⁰ The contribution of the CONPES document, in addition to designing the public policy document that identifies the current conditions for the development of big data, is to propose a series of lines of action to make big data also an economic asset.

Thus, the consolidation of big data as an asset for the country’s economic, social and commercial development poses challenges for the Colombian regulatory system. CONPES identifies two goals that are necessary for adequate data exploitation: (i) consolidate a quantity of digital data that is public, accessible, usable and of good quality; and (ii) develop a regulatory framework that provides legal guarantee for economic and commercial data exploitation.¹¹ It also specifies that the public nature of the data depends on it being impersonal, or if personal, that its owner has expressly, freely and spontaneously authorised its public use.¹²

Therefore, the consolidation of big data as an asset for economic, social and commercial purposes in Colombia depends on the proper authorisation of its use. This leads to the third element identified in the CONPES document, the articulation of current regulations related to the exploitation of data, from two perspectives: the protection of personal data,

⁵ CONPES, *Política Nacional para la Transformación Digital e Inteligencia Artificial (Document 3975)* (National Planning Department (DNP), Bogotá, 2019).

⁶ *Ibid.*, 3.

⁷ National Federation of Traders, ‘DNP emitirá documentos Conpes respecto a comercio electrónico’ (September 30, 2020).

⁸ CONPES, *Política Nacional de Comercio Electrónico (draft document)* (National Planning Department (DNP), Bogotá, 2020), 63.

⁹ CONPES, *Document 3902*, 9.

¹⁰ *Ibid.*, 3; See also, Congress of the Republic, Law 1753 of 2015.

¹¹ CONPES, *Document 3902*, 11.

¹² Congress of the Republic, Law 1266 of 2008 and Law 1581 of 2012.

and intellectual property. The regulation of the two perspectives predates the recognition of big data as an asset, and thus, “does not provide for its massive exploitation, its status as capital, and the possibility and limits of being used for market transactions”.¹³

In Colombia, the protection of personal data is a constitutionally protected right, known as *habeas data*. This right guarantees people’s right to “know, update and rectify the information that has been collected about them in data banks and archives of public and private entities”.¹⁴

The Constitutional Court implemented a writ for the protection of the constitutional rights of the owners of data from any improper use thereof. In this respect, three lines of jurisprudence have been identified. The first line is where the protection of personal data is linked to the fundamental right to privacy.¹⁵ The second considers that data protection is part of the right to freedom. In this sense, the owners of the information are free to make use of their data to the extent that restricting this faculty limits the possibility of personal self-determination.¹⁶ This second line, then, establishes that the collection, structuring, and use of digital data must be preceded by the express authorisation of the owner of the data. This authorisation is nothing other than an acceptance of the restriction on the exercise of personal freedom. Finally, a third line establishes that data protection is an autonomous right.¹⁷ In any of these three lines, however, the need remains for the owner of the data to expressly authorise its collection, structuring, and use.

The previous lines of jurisprudence are related to conflicts that have arisen between individuals and financial institutions that have used personal data to disclose customers’ credit history. In Colombia, the financial regulatory regime mandates the creation of information centres that record individuals’ credit history, such as financial products acquired and their behaviour. This information must be used by banks to establish the credit risk of a potential debtor.¹⁸ Its application to digital structures, then, becomes evident. The Constitutional Court has held that the digital dimension of data processing does nothing other than recognising the challenges posed by digitalisation, without commenting on how to address these.¹⁹ In short, the challenges are: (i) That the data subject is aware of the personal data collected—access—; (ii) that the data subject keeps the personal data collected in any data centre updated—addition, updating, and correction—; and, (iii) that the data subject can exclude personal data from data centres—exclusion.²⁰

Thus, the right to *habeas data* is currently considered by the Constitutional Court as an autonomous right. However, it has been considered and interpreted in relation to the rights to privacy, freedom, human dignity, and good name, among others. In general, the guarantee requires the prior, express and informed authorization of the owner of the

¹³ CONPES, *Document 3902*, 20.

¹⁴ Constitución Política 1991, art. 15.

¹⁵ Constitutional Court, Ruling T-412 de 1992, Reporting Judge: Alejandro Martínez Caballero; Ruling T-444 de 1992, Reporting Judge: Alejandro Martínez Caballero; y Ruling T-430 de 1993, Reporting Judge: Hernando Herrera Vergara, among others.

¹⁶ Constitutional Court, Ruling T-414 de 1992, Reporting Judge: Ciro Angarita Barón; and Ruling T-022 de 1993, Reporting Judge: Ciro Angarita Barón.

¹⁷ Constitutional Court, Ruling SU-082 de 1995, Reporting Judge: Jorge Arango Mejía.

¹⁸ Business Superintendency, Item 220-52615 (30 August 2000).

¹⁹ Constitutional Court, Ruling C-1011 of 2008, Reporting Judge: Jaime Córdoba Triviño.

²⁰ Constitutional Court, Ruling C-748 of 2011, Reporting Judge: Jorge Ignacio Pretelt Chaljub.

information²¹ with the possibility of withdrawing the authorization provided at any time.

On the other hand, the regulatory system governing intellectual property can serve as a starting point for the economic and commercial regulation of big data. Colombia has signed international conventions for the protection of international property, such as the Berne Convention, the Rome Agreement, and the Treaties of the World Intellectual Property Organisation (WIPO).

The domestic regulation, developed through Law 23 of 1982 and Decree 1360 of 1989, establishes protection standards for software development; an activity that can be considered the ideal means for the structuring, and use of big data. For this reason, its regulation is of vital importance, particularly as it confers moral and economic rights on software developers.

In short, Colombia lacks a regulatory system for the commercial treatment of big data. Some government authorities have been studying the issue by developing non-binding public policy documents. Its virtue is more closely related with identifying the incipient state of the regulations and the need to structure a regulatory framework that would serve as a basis for the deployment of the legal system regulating transactions with big data. In this regard, there are no properly regulated commercial transactions with big data. Based on the research carried out, only the contracts between information centres and financial institutions constitute a case of the way these businesses are structured which consists of the affiliation of the banking entities to information centres. This causes the former to become part of the latter insofar as they are obliged to provide the data concerning the credit history of the owners of the information.

Part One: Basic principles: Character, source and nexus

1.1. General overview

Colombia has no specific regulations related to big data transactions, save for one municipal exception, which we will refer to later. However, the following areas of law could and should be applied to regulate such transactions: (i) rules on the protection of personal data—Political Constitution, article 15; Laws 1266 of 2008 and 1581 of 2012, and Decrees 1729 of 2009 and 2952 of 2010—; (ii) regulation of intellectual property rights—Bern Convention, Rome Agreement, CAN Decision 486, Law 23 of 1982 and Decree 1360 of 1989—; and, (iii) the extensive and disorganised regulation concerning the digital economy and the orange economy.

The orange economy is one of the most important initiatives launched by President Duque and is understood as “one that generates wealth based on people’s creativity”.²² Despite the broad definition, regulation has mainly focused on the creation of technological added value.²³ Thus, although there is no specific regulatory framework on big data transactions, the very nature of this type of commercial operation is related to the digitisation of the economy. In fact, the collection, structuring, and use of big data is

²¹ Constitutional Court, Ruling T-058 of 2013, Reporting Judge: Alexei Julio Estrada.

²² Hoyos Jiménez, Catalina, *La tributación en medio de la revolución industrial*. Estudios de derecho tributario, derecho aduanero y comercio exterior (February 2019. At. 135)., 225.

²³ Congress of the Republic, Law 1943 of 2018.

only possible via the use of computer technologies that are still under development, in particular, software.

1.2. Character

In Colombia, there is no special categorisation for big data operations, except for the municipal industry and commerce tax (ICA) in Medellín. However, any regulation that may arise must address administrative and judicial considerations in determining the nature of such transactions. Both the National Tax and Customs Administration (DIAN) and the Council of State have developed extensive doctrine and jurisprudence on the nature of the following operations that could cover operations with big data: technical assistance, technical service, consultancy, and royalties.

Regarding the first two, “technical assistance” consists of “advice given by means of a contract of intangible services, for the use of technological knowledge applied by means of the exercise of an art or technique and susceptible to being transferred to be applied in the same field”.²⁴ On the other hand, “technical service”, a concept developed by jurisprudence, refers to services whose purpose is the application of a technique without involving the transmission of any knowledge.²⁵ On the basis of these definitions, the Colombian legal system has covered a large number of activities which would, potentially, include those related to big data insofar as they involve the use of technology applied to the information cycle.²⁶

The concept of “consultancy” carries much vagueness and ambiguity of interpretation due to a lack of legal precision. Using other areas of the law, especially state contracts, the DIAN assimilates the concept of consultancy with that of fees, understanding it as the remuneration that an agent receives for the provision of services of the liberal professions.²⁷

Finally, the Colombian tax administration makes use of a concept of “royalty” that is too broad. This is evident both in the definitions of the DIAN and in the administration’s application of them. Royalty is defined as the payment received from the licensing for the exploitation of an intangible good.²⁸ In this sense, the agent making the payment for the acquisition of the intangible asset is required to use it for commercial exploitation and, therefore, to generate wealth from it. However, the DIAN’s doctrine has treated payment for use as if it were a royalty.²⁹ In the case of software, for example, it would make no difference in the Colombian case if it were simply intended for use or if the end purpose was exploitation.

The cloud computing service was recently regulated in Colombia for VAT purposes.³⁰ Both the nature of the service and its tax treatment will be addressed later. For now, we must specify that cloud computing refers to the service that allows access to a shared network of computer resources.³¹ Thus, the digital economy is being considered an object of tax regulation, but its definition is quite broad, and includes “a wide range of digital products

²⁴ Ministry of Finance and Public Credit, Decree 1625 of 2016, art. 1.2.1.2.1.

²⁵ State Council, Section 4^a (26 July 1984). Case 0154, Writ. Issuing Judge: Bernardo Ortiz Amaya.

²⁶ Hoyos Jiménez, Catalina, *La tributación*, 217.

²⁷ DIAN, Item 058315 (8 October 2014).

²⁸ DIAN, Item 95029 (18 November 2009).

²⁹ Hoyos Jiménez, Catalina, *La tributación*, 216.

³⁰ Ministry of Finance and Public Credit, Decree 624 of 1989, art. 476, amended by Law 2010 de 2019, art. 11.

³¹ DIAN, Item 17056 (25 August 2017).

and services provided from abroad”.³² That is why its analysis should follow a case-by-case approach.

There is a special case relating to the nature of transactions between financial institutions and financial reporting centres. These central offices are not expressly regulated by law, but it is compulsory for banks to consult the information they provide.³³ Thus, these are legal entities of the commercial regime responsible for collecting, storing, processing, disseminating and managing the financial and commercial information concerning its owners.³⁴ For the integration of the information network, affiliation contracts are concluded with the banking institutions, which are entitled to consult the information managed by the information operator (risk centre).³⁵

According to the research conducted, there is no special tax regime applicable to central financial reporting offices. However, the operations carried out by these exchanges can be classified as transactions with big data.

In conclusion, despite the fact that in Colombia, there is no specific regulation to categorize transactions with big data, we believe that the general concept of royalty that in the international tax regime includes that of technical assistance, technical service, or consulting, may be useful for its categorization in a possible future regulation. A regulatory attempt would require an understanding that operations with big data require, on the one hand, the recognition of the property right, which could be ensured by the protection of intellectual property on the appropriate technological means for data processing; and on the other, the licensing of such means for the exploitation of the data. However, this model would create challenges, as there would be no way to alienating property rights.

1.3. Source

The analysis of this component must be considered from two perspectives: (i) That which identifies big data transactions as part of operations whose object is an intangible good associated with industrial property; and (ii) that which relates to the exchange of services, assistance and consultancy, as indicated in the previous section.

In terms of the former, Law 1819 of 2016 established that operations with intangible goods are part of the taxable event for sales tax (VAT). This tax will be applied to transactions involving “rights to intangible assets, solely associated with industrial property”.³⁶ Accordingly, any type of transaction with this type of property would be taxed regardless of where it is effected, provided that the user or operator of such property is resident in Colombia for tax purposes.³⁷

As far as the second perspective is concerned, it is important to bear in mind that services related to big data are treated as digital services in Colombia. In this regard, the tax authority considered that “for income to be considered domestic, the service must be provided within the country or from abroad”.³⁸ Thus, regardless of whether the operation

³² Hoyos Jiménez, Catalina. *La tributación*, 215.

³³ Business Superintendency. Official notice 220-52615 (30 August 2000).

³⁴ Credit Bureau CIFIN. Regulation (2013, version 4).

³⁵ *Ibid.*, art. 2.

³⁶ Ministry of Finance and Public Credit, Decree 624 de 1989, art. 420 b), amended by Law 1819 of 2016, art. 173.

³⁷ *Ibid.*, art. 420, para 3°.

³⁸ DIAN, Item 1044 (20 April 2019).

involves technical services, technical assistance, consulting, service licensing or any other service related to big data, these would be subject to taxation in Colombia as long as they are provided in the country or from abroad. If the services are provided abroad, they would not be taxed in Colombia.

Hence, a distinction must be made between the concepts of “services provided from abroad” and “services provided abroad”. The tax authority has understood that when these services are rendered outside the national territory, and have applications or effects within the country, they will be services rendered from abroad and will be taxed in Colombia. In turn, services are understood to be provided abroad, from a foreign source and, therefore, not taxed in Colombia, when the services are not only provided outside the national territory but also have no effect in Colombia. In other words, they are effected and completed entirely abroad.³⁹

1.4. Nexus

Colombia maintains a general regime of permanent establishment.⁴⁰ However, its development is only incipient⁴¹ and does not specify any special treatment for the case of operations with big data. Furthermore, it does not refer to issues related to digital, virtual or similar presence.⁴² This regulation assigns the nature of permanent establishment to branches of foreign companies, agencies, offices, factories, workshops, mines, quarries, oil and gas wells, among others “by the mere fact of carrying out their activities in the country through a broker or any other independent agent, provided that such persons act within the ordinary course of their business”.⁴³ Companies with a permanent establishment in the country shall be liable for income tax on the profits earned by the permanent establishment from both domestic and foreign sources attributable to it.

The general regime of permanent establishment is modified in some of the IDCs signed by Colombia, particularly with regard to the types of establishments that may be set up. For example, while the treaties with Spain, The Republic of Korea and Switzerland do not include the concept of a permanent establishment of services, the rest do, although with differential treatment depending on the IDC.⁴⁴

³⁹ DIAN, Item 064 (6 February 2018).

⁴⁰ Ministry of Finance and Public Credit, Decree 624 of 1989, art. 20-1, art. added by Law 1607 of 2012, art. 86.

⁴¹ Hoyos Jiménez Catalina, *La tributación*.

⁴² *Ibid.*, 223.

⁴³ Ministry of Finance and Public Credit, Decree 624 of 1989, art. 20-1.

⁴⁴ Sánchez Neira, Luis Orlando; Vargas Cifuentes, Jaime, and Parra Ramírez, Andrés. *Convenios para evitar la doble imposición en Colombia: teoría y práctica* (Legis, Bogotá D.C., 2019), 39-40.

Part Two: Application of treaty principles

2.1. General overview

Colombia has active IDCs with Canada, Chile, Czech Republic, India, the Republic of Korea, Mexico, Portugal, Spain, Switzerland, and the United Kingdom.⁴⁵ It has also signed conventions with France, Japan, Italy and the United Arab Emirates, although these are not yet in force.⁴⁶ In general, each of these treaties has been designed following the OECD model, although with some differences, mainly inspired by the UN model and the domestic regulation of each subscribing country.⁴⁷

A common denominator of the treaties signed by Colombia is the consideration of technical services, technical assistance, consultancy and royalties as the object of regulation (article 12 of each IDC). However, these four concepts are included in the general concept of “royalty”, using the OECD model on double taxation treaties.⁴⁸ This may lead to some potentially conflicting situations because the DIAN has interpreted the concepts of “technical assistance” and “technical service” broadly, and included in it activities which, on the basis of other legal systems, would not fall into this category. In the revised documentation, however, no conflict was found to have arisen over the application of the conventions in this respect.

2.2.2. Detailed comments

Operations with big data as a special category are not considered in the tax treaties signed by Colombia. However, these operations could be classified in one of the operations described in article 12 of the IDCs in force, which fall under the concept of “royalty”. In particular, paragraph 3 states that royalties are “any payment for the use or right to use any intangible property”.⁴⁹ This provision, only contained in the IDCs signed with Canada, Chile and the Czech Republic, would provide a basis for identifying ownership of the property right in future transactions for the alienation of big data. For example, it would make it possible to determine a mechanism that establishes who is the owner of the property right over the software used to collect, systematise and analyse information, which would help to define what type of transactions could be configured on that right: alienation or licensing. In this sense, property rights could be assigned, not strictly speaking, to the data collected, but to the IT resources used to collect them.

Accordingly, the concept of “profit” would be complex to determine. If this is understood as the result of subtracting the cost assigned to that income from the income, then it would

⁴⁵ DIAN, “Convenios Tributarios Internacionales”, (30 September 2020), <https://www.dian.gov.co/normatividad/convenios/Paginas/ConveniosTributariosInternacionales.aspx>.

⁴⁶ In Colombia, once the treaties are signed, they must be approved by the Congress of the Republic, and then submitted for presidential approval and review by the Constitutional Court. The latter is carried out both formally and materially. Once the Court has declared that the instrument conforms to the constitution, it is exchanged with the contracting party. If the treaties have not entered into force, it is because, even though they have been signed, they are still in one of the stages described.

⁴⁷ Sánchez Neira, Luis Orlando; Vargas Cifuentes, Jaime; and Parra Ramírez, Andrés, *Convenios*, xvii.

⁴⁸ *Ibid.*, 141.

⁴⁹ Congress of the Republic, Law 1261 of 2008, Law 1459 of 2011, and Law 1690 of 2013.

be possible to assign the “profit” category to operations for the alienation of products related to big data. For example, the software used for data processing, the databases containing structured information, among others. But the big data transactions should be assigned to the category of “royalty” if the transaction is only for licensing purposes. However, for the purposes of IDCs, since they involve property rights on intellectual property, the concept of “profit” is included in the general concept of “royalty”.

However, the IDCs that have been subscribed to and are currently in force have no concept of permanent establishment, whether virtual or digital. They establish an idea of permanent establishment of services,⁵⁰ but this type of permanent establishment does not apply to international transactions with big data because it would only be applicable if the service was provided through a person located in the country of the source, and that consisted of some kind of consultancy in the exercise of the liberal professions.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

In Colombia there is a general transfer pricing regime for subsidiary companies,⁵¹ and for some special cases that do not involve subsidiaries but some kind of linkage: business collaboration contracts.⁵² Subordination is based on the relationship between the head office and its branches, between the company and its agencies, and in the case of permanent establishments. The methods established in the Colombian regime to determine transfer prices are as follows: comparable price not compared, resale prices, added cost, transactional net margins, and profit sharing.⁵³

Although transfer pricing is designed to regulate commercial transactions between subordinate companies, in Colombia, this regime also covers other types of business structures in which there is no subordination. These are business collaboration contracts, which are intended as forms of association for the development of a specific project. Despite the fact that these commercial arrangements could generate tax arrangements that would reduce the tax base, there is an area of doctrine that claims that including them in the regime creates serious difficulties in the application of transfer pricing methods.⁵⁴ In the case of transactions with big data, transfer pricing would be required where information is collected, processed, and used in different jurisdictions, but through business collaboration agreements.

To date, no doctrine or case law related to transfer pricing and transactions with big data or similar digital services has been found. Thus, the future application of the regime to this type of transactions should be based on a case-by-case approach.

⁵⁰ With the exception of the IDCs signed with the Republic of Korea, Spain and Switzerland.

⁵¹ Ministry of Finance and Public Credit, Decree 624 de 1989, arts. 260-1 – 260-11.

⁵² *Ibid.*, art. 18.

⁵³ *Ibid.*, art. 260-3.

⁵⁴ Díaz Castro, Santiago. ‘Incidencia del nuevo régimen de precios de transferencia en los contratos de colaboración empresarial en Colombia’. *Revista de Derecho Privado*, No. 50 (2013), 1-18.

Part Four: Special regimes

4.1. General overview

In Colombia, there is no tax on digital services in the strict sense. The regulations provide for differentiated treatment for certain activities directly or indirectly related to these services. In particular, the TS provides incentives for activities in the orange economy, as well as special arrangements for scientific, technological development and innovation projects. At municipal level, Medellín has also created a specific regime for data collection, storage, and processing operations.

4.2. Incentives

With respect to tax incentives, there are two that could be applied to the development or marketing of big data. On the one hand, our regulations include credits for investment in research, technological development or innovation projects, as well as profits and income derived from activities pertaining to the orange economy that are exempt from income tax.

In 2016, Law 1819 modified the TS so that persons carrying out scientific, technological development or innovation projects could deduct 25% of the value invested in them, from income tax.⁵⁵ The National Council for Tax Benefits in Science, Technology and Innovation establishes that scientific research is creative work aimed at increasing knowledge.⁵⁶ Technological development, on the other hand, is understood as the application of knowledge to the development of new products, such as goods, services or processes.⁵⁷ And, finally, innovation projects are those that create new products or improvements to goods, services, processes, and marketing methods, among others.⁵⁸ Finally, for an investment to qualify for the benefit it must be recognised by the Ministry of Science, Technology and Innovation.

Government regulations on this credit⁵⁹ allow the issuance of tax credit certificates in favour of micro, small, and medium-sized enterprises, provided that they have invested in research, technological development and innovation, or have paid remuneration to persons with doctoral degrees in the development of such projects. In the latter case, the value of the certificate is equivalent to 50% of the remuneration paid.

The tax credit can be used in two different ways. On the one hand, it may be used to offset the value of income tax payable, and, in the event that there is no debit value, it may be used to create a credit balance. On the other hand, in case the tax credit exceeds 1,000 UVTs,⁶⁰ approximately USD 9,632,⁶¹ tax refund certificates (TIDIS) can be claimed and these will be tradable on the stock exchange.

In addition, this year the government issued Decree 286 of 2020, which regulates

⁵⁵ Ministry of Finance and Public Credit, Decree 624 de 1989, art. 256, amended by Law 1819 de 2016, art. 104.

⁵⁶ CNBT, *Tipología de proyectos calificados como de carácter científico, tecnológico e innovación* (CNBT, version 5), 11.

⁵⁷ *Ibid.*, 23.

⁵⁸ *Ibid.*, 34.

⁵⁹ Ministry of Finance and Public Credit, Decree 1011 of 2020.

⁶⁰ For 2020, one UVT unit corresponds to COP 35,607.

⁶¹ Representative market rate on 15 September 2020: USD 1 = COP 3,697.

article 235-2 of the TS, exempting income derived from activities considered to be part of the orange economy. Income derived from the development of technological value-added industries and creative activities is intended to be exempt from tax for seven years.

For a company to receive this benefit, it must be domiciled in the country under the exclusive corporate purpose of “developing industries with technological added value and/or creative activities”.⁶² In particular, the activities considered part of the orange economy could include big data transactions such as software publishing, IT developments, IT consulting, and IT facilities management activities.⁶³ In addition to the fact that the companies carrying out these operations have specific social objectives, they must be recognised by the Ministry of Culture’s orange economy committee. The minimum investment for these projects must be equal to or greater than 4,400 UVT, approximately USD 41,000.

4.3. The industry and commerce tax in Medellín

One of the main municipal taxes in Colombia is the Industry and Commerce Tax (ICA), which is levied on industrial, commercial, and service activities carried out in the respective jurisdictions. Although all territorial entities enjoy a certain degree of autonomy for the establishment in their territories of this tax in accordance with the law, with the exception of Medellín, none has developed local regulations in connection to big data.

In the case of Medellín, the activities of the digital economy, such as the exchange of content and the provision of platform services, are regulated by municipal agreement.⁶⁴ In addition, specific and express mention is made of certain operations with big data, such as the processing and mass storage of data, as well as the collection of information from digital users for marketing purposes.⁶⁵

Despite the identification of transactions with big data in the Medellín Municipal Agreement, its use for tax purposes is complex. The taxable base of the ICA comprises “all income (...) from industrial, commercial or service activities (...) provided that it derives from a taxable activity”,⁶⁶ so that data processing, storage, and retrieval are not in themselves commercial or industrial activities that generate income. In this sense, operations with big data regulated by the Agreement are tax free. However, in the event that these activities are understood as services, they would be subject to ICA on the basis of the gross income received from their provision.

Thus, whether a taxpayer is obliged to declare and pay tax, depends on the number of subscribers to its services who report the city of Medellín as their domicile or, when subscribing outside the municipality, use the applications or upload data from connections in the city.⁶⁷ In other words, if a taxpayer engages in one of the digital activities considered in the Agreement, he must determine which of his users are domiciled in Medellín, or, domiciled elsewhere, but that acquire the service through an IP located in the city. However, while tax control of persons reporting residence in Medellín is possible, identifying the IP as being located in the city can be highly costly and complex because the tax administration

⁶² Ministry of Finance and Public Credit, Decree 624 de 1989.

⁶³ *Ibid.*, art. 235-2.

⁶⁴ Medellín City Council, Municipal Agreement 066 of 2017, art. 44 ss. 3, 4 and 5.

⁶⁵ *Ibid.*, art. 44 s. 1^o.

⁶⁶ *Ibid.*, art. 36.

⁶⁷ *Ibid.* art. 65, art. (d) ss. 3 and 4.

would have to implement a mechanism to validate the location of each IP and it would have to fight against encryption practices and tampering of IP locations.

In sum, the industry and commerce tax model proposed by Medellín is state-of-the-art in Colombia. It is the only sub-national regulation that explicitly deals with regulation on the digital economy and big data, establishing a tax for these activities. However, there is room to improve and extend its regulation. On the one hand, the system could be optimised for a more efficient administration, since the tax can be easily circumvented by altering the IP location from which big data services are provided. On the other, the ICA-proposed indirect taxation model in Medellín could be extended to other municipalities or even nationally.

Part Five: Indirect tax

In Colombia, the national sales tax (VAT) could be applied to transactions with big data. This tax should be interpreted from two perspectives. The first, related to the digital economy, within which some transactions with big data could be located casuistically. The second, aimed exclusively at the cloud computing service.

Colombian regulations exempt cloud computing operations from VAT.⁶⁸ The national tax authority defines this service as the “model that enables ubiquitous, convenient, on-demand access to a network of a shared set of configurable computing resources (e.g. networks, servers, storage, applications and services)”.⁶⁹ Based on this definition, the DIAN provides that, in order to apply the benefit, the following conditions must be met: (i) the essential characteristics of the service must be satisfied; (ii) the service must be provided under a specific model based on those recognized by the authority; and, (iii) the service must be implemented based on one of the authorized models.

Furthermore, the VAT exemption that includes cloud computing services also includes the acquisition of “software licenses for the commercial development of digital content”.⁷⁰ However, exclusion of each acquisition will depend on the particular case, insofar as the Ministry of Information and Communications Technology (MINTIC) will be the authority to determine, on a case-by-case basis, whether certain software qualifies for exemption.⁷¹

Concerning the essential characteristics of the service, MINTIC has established the following: (i) On-demand self-service as the ability to have computing capabilities without the need for human interaction with the servers; (ii) Broad Network Access as the possibility of accessing the service from different types of devices; (iii) Resource pooling refers to the fact that the resources are provided on a multi-ownership basis; (iv) Rapid elasticity refers to the fact that available resources can increase or decrease according to demand; and, (v) Measured Service concerns the control and optimisation of the service, the evaluation of which is reported to the user.⁷²

However, the following alternatives are available for the service models: (i) *Software-*

⁶⁸ Ministry of Finance and Public Credit, Decree 624 of 1989, art. 476, s. 21.

⁶⁹ DIAN, Item 17056 (25 August 2017).

⁷⁰ Hoyos Jiménez, Catalina, *La tributación*, 212.

⁷¹ Ministry of Finance and Public Credit Decree 1625 of 2016, art. 2.2.16.4.

⁷² Ministry of Information Technology and Telecommunications, Document Registration No. 1058335 (22 June 2017).

as-a-service allows the consumer to use a range of applications that are operated in the cloud; (ii) *Platform-as-a-service* enables the consumer to deploy a range of applications whose infrastructure is supplied by the cloud; and, (iii) *Infrastructure-as-a-service* provides the consumer with processing, storage, networking and other computing services for the execution of arbitrary software.⁷³

Finally, the following implementation models are available: (i) *Private cloud* provides the services for the exclusive use of a single organization; (ii) *Community cloud* provides the service to a community of organizations that share common concerns; (iii) *Public cloud* offers services on a public basis to any user; and (iv) *Hybrid cloud* provides the service mixing any of the above models.⁷⁴

Transactions with big data other than the above are not subject to VAT exemption. On the contrary, they must be treated in accordance with the general tax regime. To this end, the TS draws a distinction between whether the service is provided from Colombia or from abroad.

In the first case, the taxpayer must comply with all VAT obligations such as registering in the Single Tax Register (RUT), invoicing for services rendered, and declaring and paying the corresponding tax. The taxpayer will be treated as liable for the payment of tax.

If, on the other hand, the service is provided from abroad⁷⁵ to a consumer located in Colombia, the supplier will have two options to comply with the VAT obligation in Colombia.⁷⁶ The first option involves the foreign provider registering with its RUT, invoicing for the services provided, and paying the corresponding tax. In other words, the provider is subject to the general tax regime. The second applies to cases where payment of transactions is made through intermediaries (financial institutions, credit or debit card issuers, electronic payment channels, among others), the latter being responsible for withholding VAT.⁷⁷

Part Six: Tax accounting

In Colombia, International Financial Reporting Standards (IFRS) are applied for accounting purposes. As a general rule, the tax base is calculated in accordance with the accounting rules, unless expressly stated otherwise⁷⁸. The specific case of transactions with Big Data is not covered by these rules. However, the accounting rules governing these operations are described below.

6.1. Recognition of transactions

In the current accounting regulations, there is no special rule for registering transactions with big data. This means that standard regulation must be applied, i.e., IAS 18, which generally regulates income from ordinary activities: those generated by the sale of goods,

⁷³ Ibid.

⁷⁴ DIAN, Item 17056 (25 August 2017).

⁷⁵ Ministry of Finance and Public Credit, Decree 624 de 1989, art. 420, s. c).

⁷⁶ DIAN, Resolution 51 (19 October 2018).

⁷⁷ Ministry of Finance and Public Credit, Decree 624 de 1989, art. 437-2 (8).

⁷⁸ Ibid. art. 21-1.

the provision of services or the use of company assets by a third party. In particular, it also refers to “patents, trademarks, copyrights and *licenses*” (emphasis by author).⁷⁹

The latter, however, requires an analysis of whether the transaction with big data falls into one of these categories. Thus, transactions are recognized on the basis of the cash value received for the transaction calculated in present value. If credit is granted, the transaction will be recorded on the basis of the present value of future payments. The calculation will be based on the “current rate for similar instruments” or on the rate that equates the value with the cash price of the goods and services sold.⁸⁰ In other words, the standard aims to match the recorded value with the actual value of the transaction.

6.2. Capitalization and amortization

There is no express regulation related to big data in Colombia. If big data “products” (databases, analysis results, analytical systems, among others) are understood as “intangible assets”, IAS 38 should be applied. However, this rule does not apply where such “products” are intended for sale.⁸¹ In this case, they should be treated as inventories under IAS 2. However, in revising this standard, there is no direct reference to how to account for intangible assets held for trading.

In other words, it seems clear that the current accounting regulations, are too limited to be applied to big data “products”, and they do not allow transparent treatment for accounting purposes. Therefore, big data “products” should be treated according to the general inventory regime, i.e., IAS 2.

To determine the value of the inventories, two different amounts must be calculated and the lower amount of cost and net realisable value must be chosen. The latter is defined as “the selling price plus expenses to enable the sale”,⁸² in other words, it is the value at which the product is expected to be placed on the market.

Part Seven: Other

In Colombia there are no other relevant tax issues that could arise in transactions with big data.

⁷⁹ Vázquez Carrillo, Nitzia; and Díaz Mondragón, Manuel. *Normas internacionales de información financiera (NIIF): principios y ejercicios avanzados de contabilidad global* (Profit Editorial, Barcelona, 2013), 146.

⁸⁰ Ministry of Finance and Public Credit, Decree 624 de 1989, art. 74. See also Vázquez Carrillo, NIIF, 147.

⁸¹ International Financial Reporting Standards Foundation, *Activos intangibles* (IFRS, SF), 1569.

⁸² Vázquez Carrillo, NIIF, 125.

Part 8: Reference case studies

8.1. Data brokers / Information resellers

The general reporter proposes the case of a company, Broker Co., which obtains massive data from the users of the Website Co. site, in exchange for an annual payment. Broker Co. pays a team of engineers who develop software for data analysis; there is no specification on how to hire this team. The end products are structured databases that are maintained as the stock of Broker Co. This company markets these products to end consumers, who pay a fee based on the amount of data provided and the degree of structuring of the data. This case will be analysed assuming that Broker Co. is located in Colombia.

Transactions between Broker Co. and Website Co. as well as between Broker Co. and consumers could be structured on a cloud computing service basis. Website Co. could store the collected data in the cloud and allow Broker Co. access to it. A similar situation, but with structured databases, could be configured in the case of Broker Co. and its clients.

To determine the nature of the payments, each transaction will be analysed independently. The transaction between Broker Co. and Website Co. is considered a payment to a foreign entity as operating costs. This disbursement should be considered when determining the taxable income tax base to be paid by Broker Co. In turn, for tax purposes of Website Co. in Colombia, the payment will be understood to have been made in this country. In addition, should Broker Co. be domiciled in Medellín, it will be subject to the payment of the ICA for the number of users domiciled in the city and for those users that, without being domiciled, access the service through an IP in that municipality.

In the case of Website Co., there are different alternatives that should be reviewed. This company, despite being domiciled outside Colombia, could constitute a permanent establishment for the exercise of its operations in the country—if the volume of the operation and the possibility of expansion so warrant—or operate as a foreign company that provides a specific service for a user in Colombia. In the first case, the permanent establishment would be liable for income tax based on the result of its operations in the tax year.⁸³ In the second, Broker Co. should practice a withholding tax on payment to Website Co.⁸⁴

In the event that the two companies were related and transfer pricing principles had to be applied, we consider that two methods could be used, the resale price method and the operating profit transaction margin method. Unlike the other methods authorised in Colombia, these are based on information endogenous to the group. In other words, the transaction is compared between related parties with the transactions that the companies of the group would have carried out with other companies, without considering how the transactions between companies outside the group would be structured. Given the scarcity of information on operations of this type effected by other companies, it is complicated and costly to use the other methods authorised in Colombia, as this would require exogenous comparison.

⁸³ Ministry of Finance and Public Credit, Decree 624 of 1989, art. 20.

⁸⁴ *Ibid.*, arts. 12 and 406.

8.2. Data feeds

The general reporter proposes the case of two companies located in different jurisdictions. One, Animal Data Co. designs predictions of animal behaviour based on data collected by itself. The other, Information Site Co. acquires the predictions of the former for a monthly fee and uses them to maintain updated information on its website. It charges no value for the information provided, nor does it have access to the rights to the software or algorithms of Animal Data Co. Information Site Co. collects information from visitors to its website, which is then transferred to Animal Data Co.

The only transaction that can be analysed in this case is the transfer of structured information from Animal Data Co. to Information Site Co. at the cost of a payment. This is because the latter's use of the information is tax independent. Therefore, we consider that the structured data could be transferred through the cloud computing service, meaning that Information Site Co. could make use of the information hosted there.

To determine the source of the payment, regardless of which of the two companies is domiciled in Colombia, we will consider that such payment is made within the country. For the income tax purposes of Information Site Co., this payment could be considered to establish the taxable base provided that it is directly related to the income obtained. In any case, a withholding tax must be applied to the payment made to Animal Data Co. in the event that the latter does not have a permanent establishment in Colombia; otherwise, the latter must declare the income tax, and the payment made by Information Site Co. is part of the taxable base as it constitutes ordinary income.

Given the condition of the operation between the companies, this cannot be understood as a royalty or tax benefit. In order to be covered by the treaties, the use and exploitation of software and algorithms, which are treated as industrial property products, should be allowed. However, their transfer is not part of the negotiation between Animal Data Co. and Information Site Co.

The exchange of information of both Animal Data Co. and Information Site Co. with the website's users is not subject to taxation. It is only necessary to specify that, in accordance with the regulations on personal data protection, Information Site Co. should guarantee that the owners of the information give their express authorization for the data to be processed.

8.3. Analytics based consultancies

The general reporter proposes the case of a company, Consultant Co. which has obtained a database on the academic and labour aspects of a sample of people. This database is used to provide consulting services to educational institutions, to improve their students' chances of success. It also allows other people to access the database for research purposes. Researchers, although they cannot market the data to which they have access, can do so with products designed based on the information provided by Consultant Co. This company requires payment from both educational institutions and researchers.

Considering the nature of the operations, there are no differences in terms of big data. There is no tax relevance if Consultant Co. offers consultancy services based on structured information, or if it provides the information on an unstructured basis.

The approach to these operations in the light of international treaties does lead to differences between the two operations. In the case of the transaction with educational institutions, the service provided by Consultant Co. will be understood as a royalty, to the

extent that it involves consulting services, and the use of industrial, commercial or scientific equipment, among others. Thus, the tax treatment should be analysed according to each subscribing country separately.

On the other hand, transactions with researchers will be treated as cloud computing services if this model of service provision is established. In this case, assuming that Consultant Co. has some kind of link with Colombia, either through residence or permanent establishment, it will be independent of the treaties and the general regime will have to be applied. Its income will be considered for direct tax purposes, and no VAT should be charged on the service, as this constitutes an exemption.

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Summary and conclusions

Czech law does not have a legal definition of data in general. Even further, their legal nature is not clear as there is no conclusive opinion, whether data should be considered a thing under Czech law or not. The biggest challenge in this context is the ubiquity of data, the unlimited potential to be duplicate (unless consistently attached to a tangible data medium) and therefore insufficient controllability, which leads to the conclusion that data are not a thing.

The character (size) of big data compared with data of regular size is not relevant for a legal assessment. In both cases the types of data involved in relevant datasets must be assessed in order to determine whether there is a special regulation of such type. The most strict regime is established for the personal data, other specific regimes include open data, data related to the environment, certain public sector data, if requested by a citizen, etc.

Further, certain data might be protected on the basis of specific legal institute, if they are considered to be a part of e.g. a trade secret, databases, etc. Use of others might be subject to special relative rights established by a contract. In some cases, such as personal data, it might be even questionable if such data are tradeable at all.

The biggest challenge in determining their character as outlined above and possible legal disposal of data, is their dynamics. In order to utilize data which are not considered as a thing, the way of their utilization and not data themselves must be the subject of a contract.

The tax law tries to apply a general fiscal regime to the specific described situations as to other similar business operations. From the tax perspective, data are generally intangible assets.

Introduction: Legal background

We provide the following description of the law applicable to big data transaction as taxable property and rights so we can describe relevant tax issues.

General property law

In general, there is no property right in data per se, nor any general “data property statute” providing for a generalized property right in data in the Czech Republic. However, there are

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some law concepts which might apply to protect against access to data and information by third parties including specific protection of databases.

Under the Czech law, a thing in a legal sense is everything that is different from a person and serves the needs of people.³

The Czech civil law generally distinguishes between material (corporeal) and immaterial (incorporeal) things. Both may be subject to property rights. According to the Czech Civil Code,⁴ immaterial things are described as rights (if their nature allows it) and other things without material substance.

Therefore, to be considered as a thing by the law, the subject in question must be:

- distinguishable from a person (see section regarding copyright);
- controllable;
- useful;
- existing independently (i.e. not as a part of an aggregate only).

The legal nature of data is therefore very disputable as it is not clear if they should be generally considered as things in the legal sense and if so, whether they are essentially immaterial things.⁵

So far, the Czech law only knows a definition of “personal data” (based on the GDPR),⁶ “nonpersonal data”, and “databases” which are all mentioned further. Legal theory also recognizes the term “virtual things” in the context of a digital content as regulated by EU law.

Both Czech and foreign legal academics also criticize that the current law does not consistently and sufficiently distinguish between the terms “information” and “data”.⁷ This problem is even more complex than the legal character of data itself. The more general question is whether the intellectual property should be considered the same as actual property.

Whereas some authors⁸ consider information to be a thing, this concept is refused by others, who also point out the discrepancy of the current concept of personal data protection (which they find fault) in comparison with other privacy protection concepts.⁹

Following judicial case of internet piracy¹⁰ is being quoted to illustrate this conflict: the damage caused by the unauthorized use of the author’s work (uploading files online) is limited to the amount of provable unrealized profit. The court in this case considered the real effect of the data utilization only and not the number of the unauthorized downloading. In other words, according to the Czech court it does not matter how many people have downloaded the files, but how many of them would actually pay for the authorized downloading.

³ With some exemptions such as a human body or its part and animals which are not considered as things under the Czech law.

⁴ The Czech Civil Code 89/2012 Sb., *občanský zákoník*.

⁵ Some legal theories deny existence of immaterial things as such, claiming that each thing has its material substance.

⁶ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation or GDPR).

⁷ Polčák, Radim. Informace a data v právu. *Revue pro právo a technologie*. [Online]. 2016, no. 13, p. 67-91. [cit. 2020-08-04].

⁸ Telec, Ivo. Není informace jako informace. *Právní rozhledy*. 15-16/2014 p. 515.

⁹ Polčák, Radim. Informace a data v právu. *Ibid*.

¹⁰ Decision of the Supreme Court of the Czech Republic 5 Tdo 171/2014 from 8 October 2017.

Other authors even consider data to be software,¹¹ whereas software and blockchain are considered to be a thing in the legal sense. Also virtual/crypto currencies are often considered as things, which have been affirmed by the Czech financial authorities. The main difference between data and cryptocurrency however consists in their ubiquity. The ubiquity of data is also the main argument against considering them as a thing since it is usually not possible to fully control them (as regards their restoration as mentioned further).

Nonetheless, voices are being raised demanding establishment of a brand new right of data producer, which would enable the producer to monetize data and effectively inhibit others from unauthorized use.

Legal nature or natural legality of information

According to the above mentioned approach, information can be described as a natural phenomenon, specifically and timely organized, as the effect of merging of data, circumstances of their occurrence and time.

Data should be viewed as sources, and their receiving, merging and interpretation form a piece of information.

It is therefore crucial to duly distinguish between information and data, as not every data leads to information. In order to cause legal consequences, it is necessary to identify and describe effect of information to rights and equivalent claims such as personality protection or damages.¹²

Types of data

There are particular types of data in question, often due to their commercial potential. Some of them have a specific legal regulation.

Among others, there are unprocessed data (raw data) and in consequence processed or cumulated data (aggregated data), or primary and secondary data.¹³ Further there are research data as kind of a specific category and especially personal data with plenty of specific subcategories as mentioned further. Under the EU law the free flow of non-personal data (also covered further) and open data is regulated. Last, but not least there are big data as extremely extensive files of data.

In the Czech Republic so called open data are available in the National catalogue of open data¹⁴ based on the Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information¹⁵ and Czech Act No. 106/1999 on Free Access to Information.¹⁶ The latter Act enables both natural and artificial persons to demand public information from the state offices with several exemptions. Some specific data might be subject to special legislation, such as the Act on right to environment

¹¹ Šavelka, Jaromír. Autorskoprávní ochrana funkcionality softwaru. MUNI. Právnická fakulta. Brno. 2013. p. 25.

¹² Polčák, Radim. Informace a data v právu. Ibid.

¹³ Please see section Examples for details.

¹⁴ Available at: [at https://data.gov.cz/english/](https://data.gov.cz/english/).

¹⁵ <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32003L0098>

¹⁶ <http://www.mvcr.cz>

information.¹⁷

Further there is a term metadata for data that provides information about other data, i.e. to describe and organize data.

The rights to data are therefore practically inferable on basis of legal concepts mentioned further (such as copyright, personal data protection, etc.), however these approaches might be criticized for not being fully accurate.

The Czech law, based on the ancient Roman law, recognizes the following entitlements of persons exercising rights in property: dare (to give), facere (to act), omittere (to refrain), and pati (to allow). Considering data (unless they are inseparably attached to a tangible data medium) it is not possible to successfully claim their restoration in the meaning of real (i.e. complete) return (dare), which is not possible as their presence is relatively unlimited.

The European legislation on the other hand sometimes treats data as a tradeable good or commodity, therefore a thing.¹⁸

Absolute rights to use of data

The ownership (to a thing in a legal sense) includes the right to possess, use, consume, dispose and destroy the thing. These rights are fully applicable to the tangible and permanent data mediums. The absolute right to data thus exists only in specific cases of copyright including databases, right to privacy, right to free access to information (or to data in fact) or trade secret as reflected further.

Relative rights to data

The relative rights on the other hand regulate the way of data usage and offer specific solutions of infringements.

Copyright

The copyright law focuses on protection of an author's own intellectual creation. Even though data are not subject to copyright in general,¹⁹ some data might fulfil the definition of author's work²⁰ under the Czech Copyright Act.²¹ The specific protection of databases also covered by the Czech Copyright Act may also apply to certain data as mentioned further. Rights based on this regulation are absolute, i.e. have an effect towards everyone.

¹⁷ The Act No. 123/1998 Sb., *o právu na informace o životním prostředí*. The free availability of historical meteorological data was previously subject to a legal dispute.

¹⁸ For instance the Directive (EU) 2019/770 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services.

¹⁹ Since data are not the expression of an original creation.

²⁰ The Czech Copyright Act defines the author's work as „work of art or a scientific work, which is a unique outcome of the creative activity of the author and is expressed in any objectively perceivable manner including electronic form, permanent or temporary, irrespective of its scope, purpose or significance“. A fact (i.e. data) as such is explicitly excluded.

²¹ Czech Copyright Act 121/2000 Sb., *Autorský zákon*.

Sui Generis Rights

Databasis protection

The Czech Copyright Act, based on the EU legislation,²² provides sui generis protection for databases as collections of valuable data sets.

Privacy protection

As already mentioned, personal privacy is subject to law protection which cannot be reduced to protection of personal data. The defense in case of a breach is a specific civil lawsuit.

Trade secret / Confidential Information

The trade secret is another legal institute which can be used to protect data. Czech regulation of the trade secret is based on the European Legislation.²³ According to the Czech Civil Code²⁴ six following criteria must be fulfilled cumulatively to constitute a trade secret:

- must be competitively significant, i.e. constituting competitive advantage;
- identifiability;
- evaluability;
- usually unavailable fact (protected secret);
- relation to the business enterprise.

Once any of these criteria are not met, the relevant fact is not a trade secret anymore.

Trade secret is considered as an immaterial thing and therefore subject to legal disposal.

The legal protection of a trade secret is informal, i.e. trade secret is not registered like copyright. Its effect is against a specific violator only.

Databases commonly created within business activity such as lists of contacts usually fulfil the definition of a trade secret.

Breach of a trade secret might also constitute breach of economic competition.²⁵

Contractually confidential information

It is common to conclude separate contracts or clauses regarding confidentiality (non-disclosure agreements often shortened as NDA) between the contracting parties. Such contracts are however binding the contracting parties only. It is necessary to duly specify the data or information to be considered as confidential.

²² Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases, 1996 O.J. (L 77) 20.

²³ Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure.

²⁴ In s. 504 of the Czech Civil Code.

²⁵ According to s. 2985 of the Czech Civil Code.

There are however some specific limitations for confidentiality agreements. For instance as regards employment relationships the employee should be obliged to keep confidentiality directly in the employment agreement, otherwise it is not binding. Even more complicated is the relationship between entrepreneur and consumer. Under Czech law it is not possible to conclude a provision detrimental for the consumer. The consumer also lacks interest in commercial advantage.

Contract Law

In order to legally dispose of data, the assessment of their legal nature must be carried out. If we agree that data cannot be considered a thing under Czech law, the relevant contract must duly regulate the relative rights to the use of data.

The mere alienability (tradability) of data is questionable, especially in relation to personal data as concisely described in the paper “Data Extra commercium”.²⁶ The authors observe that transactions even in personal data are not forbidden in general and offer so called the “dynamically limited alienability rule” to be applied in order to determine if relevant data are alienable.

NDA

Non-disclosure agreements binding the contracting parties are mentioned in the previous section.

Tort law

Under Czech law, the right to protection of personality is granted to everyone. Personality includes among other things the human life, health, name, freedom, honor, dignity and privacy.

This right is granted by the Charter of Fundamental Rights and Freedoms,²⁷ which is part of the constitutional system of the Czech Republic. Further general protection of the personality is guaranteed by the Czech Civil Code,²⁸ and several special acts, such as the GDPR, the Criminal Code,²⁹ the Labor Code,³⁰ or the Press Act.³¹

The right to protection of personality is relative only. As such, it might collide with rights such as right to information, freedom of speech or other rights.

²⁶ Janeček, Václav and Malgieri, Gianclaudio. Data Extra commercium (June 7, 2019). In S. Lohsse, R. Schulze and D. Staudenmayer (eds), Data as Counter-Performance—Contract Law 2.0? (Hart Publishing/Nomos 2020). p. 93-122.

²⁷ Constitutional Act No. 2/1993 Sb.

²⁸ Division 6 „Personality rights of an individual“ of the Czech Civil Code.

²⁹ The Czech Criminal Code (zákon č. 40/2009 Sb., trestní zákoník).

³⁰ The Labor Code 262/2006 Sb., *zákoník práce*.

³¹ The Press Act 46/2000 Sb., *tiskový zákon*.

Regulatory restrictions

Unfair competition

The protection of data as trade secret as described above is part of a wider legal regulation of unfair competition. Czech, respectively European law stipulates unfair competition as threatening delict, i.e. mere exposure is sufficient and it does not matter whether damage has arisen or not. Any action of a business participant which is against the good manners and may cause harm to other competitors or consumers is unfair competition. Czech law further regulates ten specific facts of the case of unfair competition.³²

Personal data

As already mentioned, in the Czech Republic the rather independent and strictly regulated protection of personal data, is covered mainly by the GDPR.

Non-personal data

On European level the use of non-personal data is governed by special regulation.³³ Non-personal data are defined as those that are not personal data under the GDPR. A typical example is data produced by the electronic machines or sensors. The European Commission Guidelines on non-personal data³⁴ diversify non-personal data which were never personal data, i.e. never had reference to natural persons, and anonymized personal data. However the fidelity of anonymization in relation to the personal data is often questionable. Another challenge is the data sets of mixed nature – comprising of both personal and non-personal data.

Criminal law

Should there be significantly serious social harmful effects of such behavior, the unfair competition including the breach of trade secret might be considered to be “Criminal offence Abuse of information and status in business relations”,³⁵ “Criminal offences against industrial rights and copyright” or,³⁶ “Unauthorized access to computer systems and information media”³⁷, „Obtaining and possession of access device and computer system

³² Described in ss. 2977 etc. of the Czech Civil Code.

³³ Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union

³⁴ <https://ec.europa.eu/digital-single-market/en/news/guidance-regulation-framework-free-flow-non-personal-data-european-union>.

³⁵ S. 255 of the Czech Criminal Code (zákon č. 40/2009 Sb., trestní zákoník).

³⁶ Ss. 268–271 of the Czech Criminal Code (zákon č. 40/2009 Sb., trestní zákoník).

³⁷ S. 230 of the Czech Criminal Code (zákon č. 40/2009 Sb., trestní zákoník).

passwords and other such data³⁸ or “Fraud”³⁹ in general. Interest of entitled persons in data is the subject to be protected in these cases, so the particular harmed person must exist.

However, under Czech law, criminal prosecution is the *ultima ratio* instrument, i.e. is to be applied in cases of the most serious danger to the society.

Control

Except those legal instruments mentioned above, there are no specific ways to have control over specific data sets under the Czech law. The surest way to limit the access and use of data is by means of properly established relative rights.

Other (such as legal principles to the collection of, use of, or transactions in data)

There are no specific legal principles applied in relation to big data under Czech law.

Transfer of raw data

Transfer of Raw Data · Data brokers / information resellers: an enterprise may collect and aggregate personal information through the use of big data technologies and transfer that information for a fee to other organizations. This information may be gathered from cookies, loyalty cards, user contributed data from social media websites, and similar sources. Customers may use the data for various purposes, such as targeted advertising, identity verification, or fraud detection. The contract normally defines the allowable use of parameters for the data.

Data feeds: enterprises with access to current streams of user data may allow access to or transfer some portion of that data to third parties for consideration, which may apply their own analytics tools to the data.

Transfer of or Access to Aggregated Data · Provision of aggregated data: enterprises with access to volumes of data collected and organized through big data technologies such as automobile companies, large retailers, financial services providers, etc. may aggregate and structure the data to use internally or to provide to other enterprises in exchange for consideration. The recipients may use the data for purpose of advertising, insurance underwriting, advisory or other services. The data supplied may differ in terms of degree of aggregation or categorization.

Access to large data sets: researchers in various fields need access to large data sets to perform their research. For example, the human genome project requires sequencing a set of individuals and then assembling a complete sequence of each chromosome. Other researchers may be given access to the data base for a fee to support research endeavors, including for commercial enterprises such as new drug development.

³⁸ S. 231 of the Czech Criminal Code.

³⁹ S. 209 of the Czech Criminal Code.

In almost all mentioned cases the biggest issue is the determination whether the relevant data are personal data or not. If personal data are involved, GDPR in its entirety plus possible national differences, will apply within the EU. This applies also for anonymized data as both the seller and the buyer of such data must be sure that the anonymization is perfect. The transferring contract must also be accurate in duly defining the transferred data.

Specific legislation might apply in case of specifically protected data subjects, such as employees, or if sensitive personal data are involved.

The other complicated issue is the dynamic of data character, as mentioned in the legal background section above.

“Weather prediction: gathering and processing data with respect to the large number of variables involved in weather prediction allows weather forecasters to predict the timing and severity of various weather events, such as hurricanes, floods, and snowstorms. The forecasts may be supplied to others for consideration.”

Certain data such as those on weather might be subject to specific legal regulation. Legal dispute arose on the statutory interpretation of Act no. 23/1998 on information on environment.⁴⁰ The Czech Supreme Administrative Court decided that historical data on weather must be available to the public for free.

“Consumer choice: enterprises may develop predictive algorithms which rely on big data technologies to assist consumer choice. These algorithms may be developed by the enterprise itself, or by third parties which provide access to the technology for a fee.”

Besides the GDPR in relation to personal data, relevant legislation on consumer protection must be analyzed in order to assess whether there is an information duty towards the customer.

Part One: Basic principles: Character, source and nexus

From the tax viewpoint, big data transactions can be a source of income for a business, the data themselves or rights relating to them can be its intangible assets, or assets that a business has in its use for consideration or without consideration. The tax system does currently not differentiate between “raw data transactions⁴¹” and “aggregated data transactions”. Principally, general tax rules are used, as though they were any other intangible asset or income resulting from such intangible assets for the business (taxable entity). There is a similar situation with value added tax. Data transactions are not a particularly important issue from the viewpoint of positive tax law, even in the ordinary practice of revenue authorities or in the decision-making practice of administrative courts.

The topic can be encountered more in terms of questions of international taxation and the application of international double taxation agreements, for example as far as it concerns distinguishing data transactions and similar transactions, as standard services, from licensing fees. This situation should radically change upon the passage of the Bill on Digital Services Tax, which is currently being discussed in the Chamber of Deputies (bill distributed to deputies on 27 November 2019).⁴²

⁴⁰ Act no 123/1998 Sb., *o právu na informace o životním prostředí*, on information on environment.

⁴¹ Raw data: unprocessed, typically unformatted, data, such as a stream of bits that has not been filtered for commands or special characters.

⁴² Chamber of Deputies Press 658/0, Part No. 1/4, GovB on digital services tax.

1.1. General overview

The issue of the tax treatment of big data transactions does not have specifics in tax regulations compared to other transactions. Tax assessments of the basis of a specific transaction are dealt with *ad hoc*, case by case, as is the application of the relevant tax regimes resulting from such assessments; under the law they are tax autonomous and do not have to correspond to the business construction of the contracting parties, or assessments by other state authorities in proceedings not directly related to the administration of taxes, such as commercial or civil disputes, disputes on economic competition, etc. The autonomy of tax law enables an assessment for tax purposes of civil-law or commercial-law relations different to how they are designed between the contracting parties or assessed by a general court. For these purposes, the law states that 1) the tax administrator (i.e. the revenue authority) bases conclusions on the actual content of an act in law or other fact decisive for the tax administration; and that 2) during tax administration regard is not given to an act in law and other facts decisive for tax administration whose predominant purpose is obtaining a tax advantage in conflict with the sense and purpose of a tax legal relation.⁴³

A payer's tax base does not include income exempt from tax.⁴⁴ It is not possible to recognise, in particular, expenses incurred for income that is not subject to tax, for income exempt from tax or not included in the tax base as expenses (costs) incurred to generate, assure and maintain income for tax purposes.⁴⁵ Tax is calculated as the product of the tax base, reduced by items reducing the tax base and by items deductible from the rounded-up tax base, and the tax rate. The fiscal year for corporate income tax is either the calendar year, the business year, the period from the decisive day of a merger or split of a business corporation or the transfer of assets to a member until the end of the calendar year or business year, or the accounting year, if the accounting year is longer than 12 consecutive months.⁴⁶ We remark that the tax rate is usually 19%.⁴⁷ The tax rate is 5% in the case of compliance with the set conditions for an investment fund;⁴⁸ 0% for a pension company's fund or for a pension insurance institution with the exception of a pension company or similar company managing funds similar to pension insurance funds.⁴⁹ In the case of a separate tax base for tax determined by withholding from sources that are foreign, but taxed in the Czech Republic, the tax rate is 15%. Income from all activities and disposal of all assets is the subject of tax, unless expressly stipulated otherwise,⁵⁰ i.e. in the domestic perspective unless they are exempt from tax or tax does not affect them for another reason. In the case of income from abroad, international agreements are applied, as promulgated in the Czech Republic and part of the state's legal order; they have application priority over a national act⁵¹ or a special

⁴³ S. 8(3) and (4) of the Tax Code (Act No. 280/2009 Coll., the tax code).

⁴⁴ S. 23 of the Income Taxes Act.

⁴⁵ S. 25 of the Income Taxes Act.

⁴⁶ S. 21a of the Income Taxes Act.

⁴⁷ S. 21 of the Income Taxes Act.

⁴⁸ S. 17(1)(b) of the Income Taxes Act.

⁴⁹ S. 21 of the Income Taxes Act.

⁵⁰ S. 18(1) of the Income Taxes Act.

⁵¹ S. 10 of the Constitution, s. 37 of the Income Taxes Act.

act that has priority over the provisions of the Income Taxes Act.⁵² Tax non-residents are payers, provided they do not have their registered office on the state's territory or it is stipulated for them by international agreements. Tax non-residents have a tax liability that applies only to income resulting from sources in the state's territory.⁵³ In accordance with the law, it is therefore possible that a payer in a purely domestic situation is not a tax resident.

The general principle of income tax is to tax income (revenue) as an increase in a payer's assets over a certain taxation period. *A contrario*, if assets have not actually increased, tax should not be set. A payer can successfully rely on this rule resulting from constitutional protection, for example, in disputes on the taxation of other income of natural persons, which is evident, for example, in case law on the taxation of income from the assignment of receivables,⁵⁴ but it will always be more problematic for legal entities that report tax based on profit ascertained from accounts, although the use of the rule of protection of property is not excluded here.

Data (unstructured, structured or in the form of information) can be an intangible asset of a payer from the accounting and tax viewpoint, and can, with the statutory limitations, be sold, bought, rented in various legal ways or otherwise temporarily transferred, assigned, subjected to licensing and other contractual fees, utilised economically in another form, or can be processed in various ways administratively or technologically as part of the provision of services directly or indirectly related to the data (data processing for the purposes of their use or the actual use of data for other economic output of a business). The accounting and tax regime is not set differently for data or data transactions than for other intangible assets or comparable services.

If data are covered by the intellectual property regime protected by the law, the result of economic activities by a payer can be income from rights resulting from its intellectual property (income from industrial property rights, income from other intellectual property rights, income from copyrights, income from rights related to copyright), which will again be taxed in the ordinary manner and at the income tax rate (i.e. 15%⁵⁵ or 19%⁵⁶ tax rates from the tax base in accordance with the relevant regulation).⁵⁷ The applicable rules do not contain special legal provisions for data or data transactions; only some rules are set expressly for cases where the taxable income (revenue) is also income from intellectual property⁵⁸ and the law expressly states that structured data in the form of a computer

⁵² An act governing double taxation in relation to a jurisdiction that is not a state is regarded for the purposes of income taxes as an international agreement governing double taxation of all types of income (s. 37(2) of the Income Taxes Act).

⁵³ S. 17(4) of the Income Taxes Act.

⁵⁴ Decision of the Constitutional Court (Decision of the Constitutional Court file ref. IV.ÚS 650/05 of 16 August 2007); in Czech: <http://nalus.usoud.cz/Search/GetText.aspx?sz=4-650-05>

⁵⁵ Provided withholding tax on a special tax base is applied.

⁵⁶ Corporate income tax rate.

⁵⁷ After the reduction of the tax base by tax-deductible items, i.e. for legal entities based on taxable revenue ascertained usually based on accounts.

⁵⁸ See s. (2), s. 10(1), s. 19(7) and s. 22(1) of Act No. 586/1992 Coll., on income taxes.

program (software) is intangible property that can be amortised as an intangible asset.⁵⁹

Data (unstructured, structured, information) can be a subject of business, trading, input or output from an entrepreneur's economic activities.

1.2. Character

At the current time, big data transactions are, at the domestic level, subjected to the same corporate income tax regime as other non-production business activities. The same applies to personal income tax.

For tax purposes, it was therefore not necessary to define specific principles which would be applicable to characterize data transactions or big data transactions or conditions under which a data transaction should be treated, except the situation where the question of tax domiciliation is disputed. Therefore under strict national law, within the territory of the state, the same analysis is also used for both transfers of raw data and transfers of aggregated or structured data. However, a difference between them may arise in a dispute concerning the interpretation or application of a double tax convention.

Data transactions can be treated as the provision of a service by another entity, as a part of various business activities realized in accordance with special regulations or the Act on Business Activities, or during performance of a statutorily stipulated reporting duty as a part of such activities (mandatory provision of data by financial institutions for the purposes of tax administration or the fight against money laundering), or could be a directly independent objective, such as unqualified notifiable trades not requiring compliance with qualification or prudence conditions. For independent business in the field of big data transactions the relevant fields of the unqualified trade should be entered in the trading licence, which is published in the trade licensing register that is maintained electronically by the Ministry of Industry and Trade.⁶⁰ *Prima facie* it could be the following fields: Provision of software, advice on information technology, data processing, hosting and related activities and web portals; Activities of information and news agencies; Advertising, marketing, media representation; Services in the field of administration and services of an organisational and commercial nature.⁶¹ An unqualified trade is a "trade authorising the performance of activities for the performance of which this act does not require the proving of expert or other capability". In order to obtain a trading licence, it is enough to comply with the

⁵⁹ See s. 32a(1) of Act No. 586/1992 Coll., on income taxes. For the purposes of the act there is depreciation of the intangible results of research and development, software, valuable rights and other assets that are recorded in accounts as intangible assets defined by a special legal regulation, provided they were acquired for consideration, by a contribution through transformation, gift or inheritance, or created through in-house activities for the purpose of trading in them or for their repeat provision and the input price is higher than CZK 60,000 and the service life is longer than one year; where the service life is understood to mean the period for which the assets are usable for the current activities or storable for other activities or can serve as a source document or part of perfected or other procedures and solutions, including the time for the verification of intangible results.

⁶⁰ Website: <http://www.rzp.cz>; also see s. 45 and the following provisions of the Act on Business Activities (Act No. 455/1991 Coll., on business activities).

⁶¹ Fields of business 56, 57, 66 and 70, see Annex No. 4 to Act No. 455/1991 Coll., on business activities (the Act on Business Activities).

minimum general conditions stipulated by the law: 1) full legal capability of the responsible person, 2) responsible person has a clean criminal record.⁶² Almost anybody can therefore provide such services.⁶³ Income from the resulting activities is subject to taxation as a part of the regime of ordinary business activities for such entrepreneur.

The income of legal entities from big data transactions is taxable income, as the subject of corporate tax is income from all activities and disposal of all assets.⁶⁴ We would remark that income of natural persons from big data transactions is income from business or other income, as far as it concerns income from data transactions subject to the legal protection of intellectual property (section 7(1)⁶⁵ and section 10⁶⁶ of Act No. 586/1992 Coll., on income taxes). For the purposes of the report, however, the taxation of natural persons is not material.

Legal entities are an accounting unit. As their income they tax revenue reported in the accounts, because they regard as income revenues in accordance with legal regulations governing accounting, and expenses as costs in accordance with legal regulations governing accounting.⁶⁷

Data transaction as licence of intangible property

The provision of data or use of data can be *inter partes* contractually subjected to a licensing fee, or in a business contract the parties can define financial consideration as a licensing fee. The assessment of the tax effect of such provision, however, will depend on the actual nature of the fee and the question of whether it is a licensing fee in the sense of a tax act or agreement on double taxation.

A licensing fee is understood to mean “a payment of any type that represents compensation for use or the provision of a right to use a copyright or other similar right for a literary, artistic or scientific work, including a film and film works, computer program (software), as well as rights to patents, trademarks, industrial designs, proposals or models, plans, secret formulae or production processes, or technical and business know-how”. A licensing fee is also understood to mean “income from rental or any other use of industrial, commercial or scientific equipment”.⁶⁸ Licensing fees in the sense of the aforementioned provision are *ex lege* subject to withholding tax of 15%.⁶⁹ If the assessment of a transaction is

⁶² A person who was convicted of a criminal offence committed intentionally is not regarded as having a clean criminal record, if the criminal offence was committed in connection with business or its objectives, unless he/she is regarded as not having been convicted.

⁶³ See ss. 25(1) and 6(1) of the Act on Business Activities; Act No. 455/1991 Coll., on business activities (the Act on Business Activities).

⁶⁴ See s. 18(1) and s. 10 of Act No. 586/1992 Coll., on income taxes.

⁶⁵ The income of a natural person from independent activity is income from the use or provision of industrial property rights, copyrights, including rights related to copyright, including income from publication, duplication and dissemination of literary and other works at his/her own expense.

⁶⁶ Other income where there is an increase in assets is, in particular, income from the transfer of other (even intangible) property for consideration, and income from inherited industrial and other intellectual property rights, including copyrights and rights related to copyright.

⁶⁷ See s. 21h of Act No. 586/1992 Coll., on income taxes.

⁶⁸ See s. 19(7) of Act No. 586/1992 Coll., on income taxes.

⁶⁹ See s. 38d of Act No. 586/1992 Coll., on income taxes.

affected by a double taxation agreement, when determining tax, it is appropriate to proceed preferentially in accordance with the relevant agreement.

When assessing what is and what is not a licensing fee, the ministry has traditionally been tolerant. It was not decisive whether financial consideration was provided based on a contractual obligation or compensation in the event of a breach or abuse of a right, or whether the licensed right was eligible for protection comparable with protection by an intellectual property right.⁷⁰ Assessments progressively became more precise: 1) storage of data on a server is a standard service, and the fee for this service enters taxable revenue as an enterprise's profit, is taxed at the ordinary tax rate, not using withholding tax in the tax regime of a licensing fee; the same applies to data obtaining and search services;⁷¹ 2) in accordance with current case law, double taxation agreements contain a definition of a licensing fee that appears to be identically applicable to all licensing fees. In other words, the term licensing fee used in the Income Taxes Act has the same content as the term contained in an OECD Model agreement. Today, the "legal definition of licensing fees"⁷² is regarded as being a key provision of section 19(7) of Act No. 586/1992 Coll., on income taxes.

Other category of transaction

Big data transactions can be taxed as other imaginable business transactions, lease of intangible property, sale or exchange of intangible property. Financial leasing of intangible assets with subsequent purchase is ruled out by the Tax Code. If such contract is concluded, it will be assessed in tax terms, in particular for the purposes of tax recognition and any amortisation of intangible assets acquired, in accordance with the specific circumstances and content, but always while ruling out the application of special provisions on taxation of financial leasing.⁷³

Big data can always be an intangible asset for an enterprise serving for its activities or traded goods. No other special accounting or tax treatment is separately set out for them.

1.3. Source

The source of income derived from data transactions is determined by national law and double tax conventions. A tax convention prevails over the national law in the case of conflicting rules (section 10 of the Constitution).

Income is understood to mean monetary and non-monetary performance accepted by a payer. Source of income is a term introduced by international agreements as a part of the mechanism for preventing double taxation, accepted as a part of the implementation

⁷⁰ Ministry of Finance Instruction D-40 of 10 August 1993, ref. no. 251/17117/93.

⁷¹ Ministry of Finance Instruction D-235 of 31 May 2002.

⁷² Judgement of the Supreme Administrative Court of 30 May 2019, file ref. 4 Afs 74/2019.

⁷³ See s. 21d(1) and (6) of Act No. 586/1992 Coll., on income taxes

of international rules into national law.⁷⁴ Seen from the viewpoint of big data transactions, three categories of operations and income resulting from them are relevant and are regarded as income from sources on the state's territory in the case of non-resident payers under the law: 1) income from activities through a permanent establishment and income from services,⁷⁵ 2) income from business, technical or other advice, management or intermediation activities and similar activities provided on the state's territory,⁷⁶ as well as 3) income from reimbursements of resident payers in the state's territory and from permanent establishments of non-resident payers located in the state's territory, as far as it concerns reimbursements for the provision of a right to use or for use of a subject of intellectual property, computer programs (software), production-technical know-how and other know-how that can be commercially utilized, and reimbursements for the provision of a right to use or the use of a copyright or right related to copyright.⁷⁷

1.4. Nexus

Natural persons that are tax residents have a tax liability that applies to income resulting from sources in the Czech Republic's territory, as well as income resulting from sources abroad. They are therefore tax residents if they have their residence on the state's territory or usually reside here (predominant part of the year). They are tax non-residents in the event that they do not meet the conditions for tax residency or it is stipulated for them by international agreements. Tax residents have a tax liability that applies only to income resulting from sources in the Czech Republic.⁷⁸

For legal entities, *id est* in particular commercial companies, the subject of tax is income from all activities and from the disposal of all assets, unless it is expressly stated otherwise and if the company is a tax resident.⁷⁹

Legal entities are tax residents if they have their registered office or the place of their management, which is understood to be the address of the place from which the legal

⁷⁴ See s. 22, 23h and 28a(8) of the Act No. 586/1992 Coll., on income taxes. This term should not be confused with different financial law terms: the terms main and ancillary source of income of natural persons, which have a meaning for the determination of the base for health and social insurance, the term source of income as origin of livelihood, see Judgment of the Regional Court in Ostrava, file ref. 13 Co 383/2014, or Judgement of the Constitutional Court of 21 April 2011, file ref. II. ÚS 3113/10, the term origin of income, see Judgement of the Constitutional Court of 28 June 2016, file ref. Pl. ÚS 18/15, on an application for the overturning of s. 4(3) of Act No. 586/1992 Coll., on income tax: "payers that have a relatively identically high ability to make payments should pay the same tax, where no distinction should be made about what source (origin of income) is taxed"; or source of income of an applicant demonstrated for the granting of citizenship stated in s. 14(7) of Act No. 186/2013 Sb., on citizenship of the Czech Republic, see Judgement of the Supreme Administrative Court of 20 November 2019, file ref. 8 As 368/2018. Source of income does not have a content common to these terms for the purposes of international taxation.

⁷⁵ Expressly stated that with the exception of the performance of construction and assembly projects. This exception cannot, in practice, affect big data transactions.

⁷⁶ Also, for example, income from independent activities, e.g. of an engineer, lawyer, scientist, teacher, tax or accounting advisor and similar professions, performed in the state's territory, which could have significance for some big data transactions for the tax treatment of a transaction or part thereof.

⁷⁷ See Section 22 of Act No. 586/1992 Coll., on income taxes.

⁷⁸ See Sections 2 and 22 of Act No. 586/1992 Coll., on income taxes.

⁷⁹ See Section 18(1) of Act No. 586/1992 Coll., on income taxes.

entity is managed, in the territory. Tax residents have a tax liability that applies both to income resulting from a source, as well as income resulting from sources abroad. Legal entities are tax non-residents provided they do not have their registered office on the state's territory or it is stipulated for them by international agreements. Tax non-residents have a tax liability that applies only to income resulting from sources in the state's territory. Income from activities performed through a permanent establishment, if it is located on the state's territory, is regarded as income from sources on the state's territory.⁸⁰

The law does not explicitly use the criterion *significant presence*, but the traditional rule of taxation of income from an establishment's activities. If a foreign entity has income from activities performed through a permanent establishment in the state's territory, this income is subject to taxation. We understand a permanent establishment to be a place for the performance of activities on the state's territory, e.g. an office, point of sale, etc. If a legal entity or natural person acts on the state's territory as a representative of a non-resident payer and has and usually actually exercises here an authorisation to conclude contracts that are binding for such non-resident payer, such non-resident payer will be regarded as having a permanent establishment on the state's territory, in relation to all activities that the entity/person performs for the payer on the state's territory.

The criterion *significant presence* was, however, the starting point for the new bill on digital services tax, in its virtual form, as a *significant digital footprint* or *significant digital presence* on the state's territory, where the new bill on digital services tax expressly gives up on the traditional conceptual determination of a source of income; the ministry, in the explanatory report on the bill, draws the attention of members of the legislative body to the relevant change to economic conditions: "For fair and effective taxation companies should ideally pay taxes where they create profits and where value is created. The current provisions on corporate income tax are based on, *inter alia*, the concept of tax residency and permanent establishments (the assumption of physical presence and genuinely performed activities) that no longer fully apply and are ceasing to function in today's modern context of cross-border performance of activities between entities without the necessity of physical presence. Digital companies can therefore use public services and market infrastructure, for example the court system in a country in which they currently do not have to pay taxes, if they are not present in them physically in a significant manner. The current state is clearly unsustainable in a more-and-more globalised world and will lead to various opportunities for the avoidance of tax liabilities, to lower tax income for public budgets, to negative impacts on social justice, including the erosion of public budgets, and will create unequal conditions for companies." The bill on digital services tax therefore will, in the event it is passed, represent a significant change to positive law.

The income of a member of a general partnership, the general partner of a limited partnership or member of a company that is a tax non-resident resulting from his participation in such business corporation or company and from a credit financial instrument provided to such business corporation or company, is regarded as income achieved through a permanent establishment. Data transactions realized on the state's territory by a payer, employee or person working for it, are regarded as a permanent establishment, if their period exceeds six months in any period of 12 consecutive calendar months.⁸¹ If a rule of an international double taxation agreement affects a specific situation being assessed and if

⁸⁰ See Section 17(2) and Section 22 of Act No. 586/1992 Coll., on income taxes.

⁸¹ See s. 22(2) of Act No. 586/1992 Coll., on income taxes.

it leads to a consequence different to that to which the national rules would lead, the rule of the international agreement applies.

Part Two: Application of treaty principles

2.1. General overview

According to the national concept, international legal provisions are next to domestic provisions contained in the Income Taxes Act which states that the application of international double taxation agreements has application priority over domestic legal provisions.⁸² The majority of newer double taxation agreements are designed literally in accordance with the OECD model agreement. The list of double taxation agreements with access to their core text is published for ease of access in various forms; officially an agreement is promulgated in the collection of international treaties by a decree of the Foreign Ministry,⁸³ stated in a list at the Ministry of Finance's website⁸⁴ and at a server providing the consolidated text of regulations.⁸⁵ The agreements, in their original form, are used in ordinary work by revenue authorities. Somewhat paradoxically, the interpretation guidelines for international law are provided by a national act. The national act⁸⁶ formerly contained the rule for the preferential application of international agreements ("The provisions of this act apply only if an international agreement binding on the Czech Republic does not provide otherwise"), although it is possible to discuss the existence of the normative power of legislators—the same rule is set at the level of the state's constitutional order (article 10 of the Constitution). Today, the act's amended provisions set out, in a similarly problematical manner, the interpretation of some international agreements where the legislators have determined that the expression "fixed base" used in international agreements is the same in content terms as the expression "permanent establishment".

Data transactions are regularly affected by the provisions of international double taxation agreements on company profits if transactions are realized as business activities. They can, however, exceptionally be affected by rules on licensing fees. As a consequence of the, over time, narrowing view of national law on licensing fees, where a licensing fee today is basically only a fee that is mandatory in accordance with the double taxation agreement applicable to the situation being assessed, it is appropriate to use the term licensing fees in the tax assessment of a specific situation with caution.

2.2. Detailed comments

Current decision-making practice provides guidelines that are too limited. It is difficult to deduce reliable, generally-applicable rules. Previous practice often (but not always) dealt with disputed situations through a formalistic simplification; sometimes it even simply

⁸² Judgement of the Regional Court in České Budějovice of 14 March 2018, file ref. 50Af13/2017.

⁸³ Accessible electronically: <https://aplikace.mvcr.cz/sbirka-zakonu/>

⁸⁴ Accessible electronically: <https://www.mfcr.cz/cs/legislativa>

⁸⁵ Accessible electronically: <https://www.zakonyprolidi.cz/>

⁸⁶ S. 37 of the Income Tax Law.

regarded as a licensing fee what was designated as a licensing fee and *prima facie* did not seem so, as the designation does not have to correspond to the term used, in the presence of a foreign element of a specific situation, where an international agreement affected or could have affected the matter. The rule was “in the event of doubts, in favour of a licensing fee”. Decision-making and interpretation work is different today and administrative and court bodies can examine the actual character of a payment in great detail and interpret it with independent discretion.⁸⁷

From the viewpoint of data transactions as a source of royalties, it was not decisive whether financial consideration was provided based on a contractual obligation or compensation in the event of a breach or abuse of a right, or whether the licensed right was eligible for protection comparable with protection by an intellectual property right.⁸⁸ Assessments progressively became more precise: 1) storage of data on a server is a standard service, the fee for this service enters taxable revenue as an enterprise's profit, it is taxed at the ordinary tax rate, not using withholding tax in the tax regime of a licensing fee, the same applies to data obtaining and search services;⁸⁹ 2) in accordance with current case law, double taxation agreements contain a definition of a licensing fee that appears to be identically applicable to all licensing fees. In other words, the term licensing fee used in the Income Taxes Act has the same content as this term contained in an OECD model agreement. The “legal definition of licensing fees” is today regarded as being a key provision of section 19(7) of Act No. 586/1992 Coll., on income taxes.⁹⁰ In this developing view, data transactions usually do not establish a reason for licensing fees in the sense of double taxation agreements, with the exception of cases, where licensing fees are essentially strictly defined as amounts representing reimbursement for the use of or provision of a right to use a copyright or other similar right to a literary, artistic or scientific work, including a film and film works, a computer program (software), as well as rights to patents, trademarks, industrial designs, proposals or models, plans, secret formulae or production processes, or technical and business know-how”.

A licensing fee can also be income from rental or any other use of industrial, commercial or scientific equipment. Data transactions can be realized within this framework. Independently, from today's viewpoint data transactions will not be a reason for the payment of a licensing fee in the sense of double taxation agreements.

Data transactions as source of business profits are not treated differently than other business activities with intangible property. An enterprise's profits are subject to taxation only in the same state, provided an enterprise does not perform taxed activities in another contracting state through a permanent establishment located there. Profits can be taxed in the state in which an establishment is located, but only to an extent to which it is possible to attribute the profits to such permanent establishment.

For the purposes of double taxation agreements, the expression “permanent establishment” means a fixed place of business through which the business of an enterprise is wholly or partly carried on such as a place of management, plant, office, and a place permanently used and adapted to economic activities. The term permanent establishment can mean, but not in all international agreements concluded or with various set conditions, the provision of services through employees or other workers hired for such purpose,

⁸⁷ Judgement of the Supreme Administrative Court of 30 May 2019, file ref. 4 Afs 74/2019.

⁸⁸ Ministry of Finance Instruction D-40 of 10 August 1993, ref. no. 251/17117/93.

⁸⁹ Ministry of Finance Instruction D-235 of 31 July 2002.

⁹⁰ Judgement of the Supreme Administrative Court of 30 May 2019, file ref. 4 Afs 74/2019.

provided the activities last for a certain period or have a certain permanence from the time viewpoint. The specific conditions differ in individual agreements concluded.

An establishment can be a facility without any personnel, e.g. a server or a similar data repository. In this sense a server is a computer (HW) that provides some services. A server can, however, also be a computer programme that realizes such services (a virtual server). In every specific case it will be necessary to *in fine* deal with the issue of what risks or assets to attribute to such automated establishment, i.e. what profit to recognise for an establishment.

An assessment is individual, where the following rules can be deduced from the administrative practice of revenue authorities:

- 1) Software and data repositories with electronic data that are an enterprise's intangible asset do not *ipso facto* create a permanent establishment;
- 2) A server serving for the operation of websites that serve only for the purposes of advertising, is not a permanent establishment;
- 3) A server can be regarded as a permanent establishment, in particular if it serves directly for business activities;
- 4) In accordance with the ordinary approach in tax law a server is equipment that has its physical location and can therefore mean an operator has a fixed place of business;
- 5) The view of virtual servers is not yet fixed; it is more likely that it will be ruled out that a virtual server could be an establishment, as according to the current interpretation an establishment cannot be the result of activities of technological equipment (websites) due to its intangible character.

According to the interpretation agreed by the Ministry of Finance and bodies of the Chamber of Tax Advisors,⁹¹ it applies that:

- 1) The expression "a fixed place of business solely for the purpose of purchasing goods or merchandise or of collecting information, for the enterprise" will usually include the existence of equipment for surveying public opinion and collecting technical, economic or other information or for other similar activities, regardless of whether such activities are the main activities of the enterprise operated solely for the purpose of making a profit. This expression will not usually include the existence of equipment that, excluding the purchase of goods or the collecting of information for the enterprise, serves also for the re-sale of goods, or equipment that serves not only for collecting, but also for processing of information exceeding its ordinary recording in reproducible form;
- 2) The expression "a fixed place of business solely for the purpose of carrying on, for the enterprise, any other activity of a preparatory or auxiliary character" will usually include the existence of equipment maintained for the purpose of performing advertising, providing information, scientific research or similar activities, the existence of equipment serving for the maintenance of accounts, handling salary work, processing and archiving other documents, the existence of equipment maintained for the purpose of sales support in the lower part of the distribution chain, the existence of equipment serving to check the processing of merchandise belonging to an enterprise that is processed by another enterprise, provided such activities do not directly generate

⁹¹ Coordination Committee, art. 266/18.03.09, Exceptions from Definition of Permanent Establishment (art. 5(4) of the OECD Model Agreement), see Minutes of Meeting of Coordination Committee and Chamber of Tax Advisors of the Czech Republic held on 18 March 2009.

income for third parties, including entities from the founder's group. On the other hand, this expression will not usually include the presence of a server through which paid services are provided (if such server meets the general definition of a permanent establishment).

The relevant interpretation questions were supposed to be answered by the now somewhat outdated Ministry of Finance Statement Ref. No. 251/24 735/2001 of 30 April 2001, on the issue of electronic transactions when applying international double taxation agreements (published in the Financial Journal No. 4/2001).

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Data transactions do not have specifics compared to other commercial activities or fees for the use of information. The arm's length principle, applied by the tax administration as the "usual price criterion", applies when assessing the amount of fees related to data transactions. The rule is applied to all types of business transactions.

The usual price is a price of identical or comparable-use performance freely agreed between the parties to the transaction that are independent of each other economically, in terms of capital and personnel on the relevant market, that is not endangered by the effects of a restriction of competition, that genuinely act as though they are independent. If the usual price or market price of a comparable service cannot be ascertained, a price for assessment is determined, to see whether a more advantageous economic position was abused, through a calculation of the economically legitimate costs and reasonable profit. A price determined solely for tax reasons will not be recognised.

Part Four: Special regimes

4.1. General overview

Special tax regimes have not yet been introduced. According to a government bill,⁹² a "digital services tax" should be introduced (see below). Compared to the current legal provisions, the bill represents a fundamentally new concept for the determination of the place of taxation of business activities and is therefore decisive tax law. The new concept could be a reason for controversy in the field of international taxation.

⁹² Chamber of Deputies Press 658/O, Part No. 1/4, GovB on digital services tax.

4.2. DST

According to the bill⁹³ a “digital services tax comprising sub-taxes on individual taxable services” should be introduced, where a taxable service for the purpose of digital services tax is “a) the performance of a targeted advertising campaign; b) the use of a multi-party digital interface and c) the provision or sale of data about users”. A digital interface is “software accessible to a user” and a user is a “person or unit without a legal personality that accesses a digital interface using technical equipment, regardless of whether he/she/it has a user account at this digital interface (sections 1(1) and (2) and section 2 of the government bill).⁹⁴ What should be taxed is income from such activities, if they are provided on the state’s territory (the place of provision is determined as the place in which the equipment from which the user consumed the service is located). What will be decisive is the localisation of the equipment (usually a PC or mobile telephone) in accordance with its IP address. What will primarily not be decisive is the formal registered office of the customer to which the service may be invoiced by the provider. The bill is based on the actual place of provision of a service. A subsidiary criterion is to be the residence or real registered office of the actual service user.

The rule for localising a user was set in such a manner that the user of the digital interface is from the Czech Republic, provided this user uses such interface from technical equipment that, based on its IP address, is in the Czech Republic. If it is not possible, based on the IP address, to determine in which country the user is, the user will be regarded as being in the Czech Republic if he/she/it has his/her residence or its registered office in the Czech Republic (section 12(3) of the government bill⁹⁵). In this regard the Chamber of Tax Advisors objected that “IP addresses can not only be changed by software, but also do not provide a clear determination of the final point. The reason is, in particular, the limited extent of IP addresses in version 4. IP v4 can be locally changed, for example, using corporate VPN, certain web browsers and other SW”. The Chamber also pointed out that “the user of a digital interface that is only partially aimed or targeted at persons with their residence or registered office in the territory of the Czech Republic could lead to the absurd conclusion that a certain global campaign that only slightly concerns the Czech Republic concerns the Czech Republic for the purposes of taxation, and all related income is therefore subject to taxation in the Czech Republic. This is inapplicable as such in practice and, in addition, there could be a conflict with other tax jurisdictions without a clear resolution of this conflict”, and the bill “does not make it clear how authorities will proceed in the event it is not possible to determine, based on the IP address, in which state the user is and also the user’s residence or registered office is not known.⁹⁶

Prima facie it is clear that the claiming of tax in accordance with the criterion of the user’s position could lead to disputed questions, if the IP address can be relatively easily changed using a VPN to which even an ordinary user has access and, in the same way, the subsidiary use of a strictly formal criterion of the user’s residence or registered office also seems uncertain. The bill is directed at the preventative elimination of disputes by introducing a presumption: “Unless the opposite is proved, the residence or registered office

⁹³ Chamber of Deputies Press 658/0, Part No. 1/4, GovB on digital services tax.

⁹⁴ Chamber of Deputies Press 658/0, Part No. 1/4, GovB on digital services tax.

⁹⁵ Chamber of Deputies Press 658/0, Part No. 1/4, GovB on digital services tax.

⁹⁶ Comments of the Chamber of Tax Advisors of the Czech Republic, 31 July 2019, Bill on Tax on Selected Digital Services.

of the user of a digital interface that is, albeit only in part, aimed or targeted at users with their residence or registered office in the territory of the Czech Republic, is in the territory of the Czech Republic" (section 3(4) of the government bill).

A duty to pay tax arises without regard to where the provider is formally or actually based, i.e. where it has the place of its management or where its establishments and technical equipment are. The tax rate should be 7% of local revenues, but there is discussion about reducing this rate to 5%. Tax should be paid only by providers with a global annual turnover over EUR 750,000,000, of which at least CZK 50,000,000 (or CZK 5,000,000 for targeted advertising campaigns) was realised through digital services provided in the state's territory. The minimum threshold for the taxation of services of a multi-party digital interface is the number of user accounts located on the state's territory (200,000).

A tax liability for digital services tax arises as of the date of taxable supplies. If the amount of the fee for its provision is not known as of the date of taxable supplies, the tax liability arises as of the day on which the amount of the fee for the provision of the taxable service becomes known (section 20 of the government bill⁹⁷). Based on the ministry's assumption, the tax should be introduced in 2021.

At the 40th session of the Chamber of Deputies, Minister of Finance Schillerová declared that 'the taxable entities will only be those legal entities where the provision of taxable services is not only a small fraction of their total activities, i.e. it concerns enterprises or groups of enterprises that do business primarily digitally. Enterprises or groups of enterprises where the share of revenues from taxable services in Europe is no more than 10% of their total revenues in Europe will be excluded', and "the national provision of a temporary character is aimed at creating, in common with other states of the European Union that are introducing or have introduced their own provisions, pressure on international institutions and for the speeding up of work on a global solution". The minister also, in the context in question, publicly declared that it is "a compensatory tax that corrects the current imbalance. Internet giants do not pay tax here to an extent that would correspond to other companies in the Czech Republic, which is unfair. Over the long term we support the finding of a joint international solution", that the government proposed the tax in a situation where "we cannot continue to wait and observe the unequal competition between global giants and other entrepreneurs, so we are coming up with our temporary digital tax provision until an international compromise can be found," and that the bill is reasonable, as based on comments by the professional public the government decided to "exclude from the bill companies where the provision of taxable services is only a fragment of their total activities. Automakers that place paid advertising on smart-screens in cars, for example, are therefore not subject to the tax" (source: Ministry of Finance). In the source documents for deputies the ministry admits that "it is not possible to rule out this tax being passed on, i.e. being reflected in the prices of services for consumers. Theoretically it could happen that this tax will have an impact on consumers, as users of digital services."⁹⁸ Digital service providers could also absorb this tax into their margins. Quantifying the impact of the digital services tax on consumers is, however, very difficult, or rather impossible". Replies to numerous questions will be provided by the continuing legislative process and subsequent application practice.

The government bill was distributed to Members of the Chamber of Deputies on 27

⁹⁷ Chamber of Deputies Press 658/O, Part No. 1/4, GovB on digital services tax.

⁹⁸ Chamber of Deputies Press 658/O, Part No. 1/4, GovB on digital services tax.

November 2019 (Parliamentary print n. 658/0). The Organising Committee recommended the parliamentary reading and discussion (resolution n. 245 of 4 December 2020). The reading took place on 22 January 2020 at the 40th meeting of the Chamber of Deputies. The Bill was referred for consideration to the committees (resolution n. 878). The Committee on Budgets discussed the Bill on 7 February and on 15 May 2020 (Parliamentary prints 685/1 and 658/2). Finally, on 10 June 2020 the Committee on Budgets recommended the approval of the government bill, but on 17 September 2020, the discussion of the bill was interrupted. General and detailed discussions of the bill both took place on 12 May 2021. Various amendments to the bill were treated in the Parliamentary print n. 658/4 (14 May 2021). On 26 May 2021, the Committee on Budgets issued the resolution n. 658/5 considering no Member proposed rejection of the government bill. The legislative process has not yet been completed.

In accordance with the bill rules shall be applicable for a transitional period pending the adoption of EU regulation and OECD final recommendations.

The majority of parliamentary amendments seek a reduction in the tax rate: 5 % (more amendments of M. T. Martínek, amendment of M. R. Onderka, M. J. Volný, Mrs M. Vostrá), 3 % (amendment of M. J. Bartošek, amendments of M. Z. Stanjura) or 2 % if the tax is necessary (more amendments of M. J. Skopeček). Some amendments seek the reduction of an effective imposition of digital services by changing the rules of determination of the tax base (amendment of M. M. Feranec).

Some suggest suspending the effects of the national regulation until a later stage. More Members of Parliament are vigilant with the government proposal and they would rather wait for the European or international rules.

4.3. Incentives

Regulations set out a deduction to support research and development, for experimental and theoretical work, design and construction work, calculations, technology proposals, the production of a functional sample or prototype of a product or its part related to the realisation of a research and development project.

Service expenses (costs), with the exception of those that are related to the realisation of a research and development project and that are acquired from a public university or research organisation defined in a separate act, services that are related to the realisation of a research and development project and that consist of the verification or proving that the result of research and development meets the set requirements, if the expenses of verifying or proving are not included in a deduction for another payer, and fees for financial leasing of tangible movable assets that are related to the realisation of a research and development project, are not expenses incurred for research and development included in a deduction. Licensing fees, or expenses (costs) for intangible results of research and development acquired from other persons, with the exception of those that are related to the realisation of a research and development project and that are acquired from a public university or research organisation in accordance with an act, are not included expenses. A payer that intends, in connection with the realisation of a research and development project, to deduct from the tax base a deductible to support research and development will notify this intention to the tax administrator separately for each research and development project with draft documentation in which it states the name of the research and development

project and defines the research and development activities corresponding to another act.⁹⁹ Tax incentives specific for big data development or exploitation are not foreseen. The use of tax incentives foreseen in general for research and development will be problematic, principally due to the potential lack of original intellectual activities. Tax incentives are directed more at the area of software development, not at data transactions.

Part Five: Indirect tax

Value added tax is charged for taxable supplies realised by a taxpayer, i.e. an entity obligated to pay tax and registered for such tax, as a part of its economic activities. Data transactions will essentially always be the provision of a service from the viewpoint of value added tax. The questions will be the place of performance of a specific transaction and the application of a tax rate (basic 21%, first reduced 15%, second reduced 10%).

The place of performance in the event of the provision of a service to a person not obligated to pay tax is the place of the service recipient, if this place is in a third country and it concerns the transfer and assignment of a copyright, patent, licence, trademark and similar right, advertising service, advisory, engineering, consultation, legal, accounting and other similar service, as well as data processing and the provision of information, undertaking a duty to refrain, in full or in part, from realising such economic activity or right.¹⁰⁰

The place of performance during the provision of a service to a person not obligated to pay tax is the place of the service recipient, as far as concerns a telecommunications service or service provided electronically.¹⁰¹

For the purposes of value added tax, a telecommunication service is understood to be a service linked to the transfer, broadcasting or receipt of signals, text documents, images, sounds or any information by cable, radio, optical or electromagnetic systems, including the relevant transfer or determination of a right to use capacity for such transmission, broadcasting or receipt or access to information networks; an electronically provided service is understood to mean a service provided through a public data network or electronic network, with the exception only of communication through an e-mail address, in particular website hosting; the provision of software and its updating; the provision of images, texts or information or the making available of databases; the provision of music, films or games, the provision of political, cultural, artistic, sports, scientific or entertainment programmes or events, with the exception of programmes that are a radio and television broadcasting service; or the provision of a remote-teaching service (i.e. through data files).

Some electronically provided services, defined as financial activities, are exempt from tax without a right of deduction: the transfer of securities, including uncertificated securities, interests in business corporations, provided principally using data: payment services and the issuing of electronic money, the issue and administration of means of payment, unless it concerns the provision of payment services or the issue of electronic money (section 54 of the Value Added Tax Act).

⁹⁹ See s. 34 of Act No. 586/1992 Coll., on income taxes.

¹⁰⁰ See s. 10h of Act No. 235/2004 Coll., on value added tax.

¹⁰¹ See s. 10i of Act No. 235/2004 Coll., on value added tax.

Summary and conclusions

Big data and data driven businesses have not yet given rise to any specific legislation or case law in Danish law. Consequently, the below overview to a large extent expresses the view of the authors on how data will likely be treated for Danish tax purposes in an international context. However, as no authoritative sources and guidelines exist, the below is based on generally applicable tax principles, and it is needless to say that the views presented are surrounded by great uncertainty as it is the first attempt to analyze big data and data driven businesses from a Danish tax perspective.

In a legal setting over the past decades a new discipline called "IT law" has been developed, being a cross-disciplinary legal discipline covering the legal aspects related to information technology where the facts (i.e. technologies) determine the scope of the discipline and where the topics, in principle, are handled by existing well established legal disciplines, e.g. copyright law, patent law, the law of domain names, liability for intermediaries, data protection law, market law, contract law and software licensing law.

Raw data (understood as units of information) which is not part of a work, a structured database etc. is not covered by copyright protection and it is our understanding that in this respect Denmark is in line with most jurisdictions.

While data seemingly is not reflected on the balance sheet, it is relevant to consider whether data should still be considered an intangible asset for Danish tax purposes. This is primarily of relevance with respect to tax depreciation, which is inter alia available to know-how, patents, copyrights and trademarks.³ Tax depreciation requires that the intangible asset has been acquired, i.e., not built up internally. The definition of depreciable intangible is broad and may according to the wording also include other intangible assets, "such as" the intangible assets explicitly mentioned in the provision. While there is very little guidance on how to delineate the definition, it has previously been argued in the tax literature that only intangible assets "similar" to the listed assets may be within the scope⁴ but the exact scope is uncertain and could also develop over time in line with societal and technical developments.

In the context of big data transactions, we consider it most likely that tax depreciations will not be available to raw data. On the other hand, copyright protected databases should

¹ PhD, Managing Director of CORIT Advisory, and the chairman of the Danish IFA branch.

² PhD scholar at Copenhagen Business School, Senior Associate at CORIT Advisory, and Danish member of YIN.

³ S. 40(2) of the Danish Tax Depreciation Act [DK: Afskrivningsloven] (unofficial translation): In the case of acquisition of other intangible assets such as special manufacturing method or similar (know-how), patent right, author and artist right and the right to a design or trademark or in the case of acquisition of the right under a yield contract, lease or rental contract.

⁴ Louise Fjord Kjærsgaard and Jakob Bundgaard, *Afståelsesbeskatning ved flytning af DEMPE-funktioner?* Tidsskrift for skatter og afgifter, TFS 2017, 668, pp. 668-672.

be within the scope. The above uncertainty with respect to the exact scope of depreciable intangible assets is then of primary relevance in other data-driven businesses including aggregated and structured data sets not being a copyright protected database and algorithm.

If covered by the Danish tax Depreciation Act, the acquisition price of the intangible asset can be depreciated 1/7 for seven years.

The most predominant tax consequences involving big data transactions seem to be whether the income generated is considered taxable income and whether the expenses connected with big data transactions are considered deductible business expenses. We consider it likely that any income arising from business transactions involving data, may be regarded as taxable income and should be computed in accordance with the net principle. The eligibility of deduction requires that the relevant costs are incurred for the purpose of acquiring, securing or maintain taxable income. In addition, deductibility requires that the cost in question is not used to broaden the income base, including start-up costs and establishment costs.

From an international perspective, the term 'permanent establishment' under Danish domestic tax law should be interpreted according to the definition in the 2017-OECD Model Tax Convention and its Commentary.

There is no provision on imposing source taxation specifically on payments for digital product or services. However, payment classified as royalties are subject to Danish withholding tax. Notably, if comparing the domestic definition of royalty with the definition included in article 12 (2) of the 2017-OECD Model Tax Convention, the definition excludes *payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films*. This is of great importance, since EDB⁵ including software is categorised as literary work.⁶ Therefore, if software is not protected by a patent, payments for the right to use software should *not* be classified as royalties for Danish domestic tax purposes.

Denmark has a rather extensive tax treaty network comprising more than 70 applicable tax treaties. In general, Denmark adheres to the OECD Model Convention as a basis for negotiating bilateral tax treaties and relies heavily on the OECD Commentaries when formulating and interpreting tax treaty provisions. However, approximately 40% of the Danish tax treaties provides for shared taxing rights on payments classified as royalties.

The arm's length principle is a fixed part of Danish tax law and should be interpreted in accordance with the OECD Transfer Pricing Guidelines (2017) which are considered a crucial source of interpretation guidance. Currently, no official guidance from the Danish legislator or the Danish tax authorities exists with respect to the transfer pricing treatment of data and data driven transactions.

With respect to special regimes, Denmark has currently not introduced any digital services tax regime or other taxes targeting digital business models. Similarly, no specific tax incentives with respect to data driven business models have been introduced. However, a generally applicable rule exists regarding deduction for trial and research costs beyond the scope of deductibility for ordinary business costs (due to COVID-19 temporarily increased to a 130% deduction). Despite a narrow wording of the provision, in our view, the development of software, the structuring of data and the development of algorithms could fall within the scope.

⁵ Danish abbreviation for a group of assets equal to those covered by "Information Technology".

⁶ S. 1 (3) of the Danish Copyright Act [DK: Ophavsretsloven].

Finally, the current international debate on potential barter transactions and the tax implication of such transactions has not been considered in a Danish tax law context. However, since all economic benefits, in principle, are subject to tax in Denmark, it cannot be precluded that certain data transactions could be subject to tax on this basis.

Introduction: Legal background

Over the past decades a new discipline called “IT law” has been developed, being a cross-disciplinary legal discipline covering the legal aspects related to information technology where the facts (i.e. technologies) determine the scope of the discipline and where the topics in principle are handled by existing well established legal disciplines, e.g. copyright law, patent law, the law of domain names, liability for intermediaries, data protection law, market law, contract law, and software licensing law.

The treatment of data has been considered as far back as in 1961, when the legislator (in the context of the Danish Copyright Act) acknowledged that an original selection and categorization of information (data) could be subject to copyright protection as “collected works”, where the person or company by collecting other works or parts of other works could produce a new work which could obtain copyright protection. As a starting point, this protection would include works which individually were subject to copyright protection. However, it has been acknowledged that also collections of data and other elements, which on a stand-alone basis could not be subject to copyright protection, could be subject to copyright protection provided that the collection in itself is sufficiently original.⁷

Raw data (understood as units of information) which is not part of a work, a structured database, etc. is not covered by copyright protection, and it is our understanding that in this respect Denmark is in line with most jurisdictions. Raw data is not the expression of an original creation – data exists separately from works of authorship, databases, and media. However, it could be argued that an aggregated and structured data set could be considered a database – provided that this constitutes an expression of original creation that should be regarded as a collected work.

Within EU law, databases have been protected since 1996, with the implementation of Directive 96/97EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Database (“the Database Directive”). The purpose of the directive is to ensure a uniform and strong protection of databases throughout the EU, including the introduction of a *sui generis* protection of databases which could not be subject to protection under the existing law. However, following the above Danish treatment, databases were already covered by copyright protection prior to the transposition of the Database Directive.

According to the Database Directive, a database is defined as a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.⁸ The definition is further elaborated as the following: “[...] Whereas the term ‘database’ should be understood to include literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, numbers, facts, and data; whereas it should cover collections of independent works, data or

⁷ See Henrik Udsen: *IT-ret*, 3rd ed., Ex Tuto Publishing, 2016, p. 180.

⁸ Art. 1 (2) of the Database Directive.

other materials which are systematically or methodically arranged and can be individually accessed; whereas this means that a recording or an audiovisual, cinematographic, literary or musical work as such does not fall within the scope of this Directive; [...]”.⁹

As the protection requires originality, many databases seem to be outside the scope of the Database Directive. Similarly, most algorithms are not eligible for copyright protection, because they will be considered to be of a factual nature, and therefore not an expression of the creativity of its author. Furthermore, it seems like the majority of algorithms should not be patentable as mathematical methods, typically considered to include algorithms, is mentioned as something which in particular shall *not* be regarded as inventions which should be granted a patent within the EU even if the inventions are new, involve an inventive step and are susceptible of industrial application. Mathematical methods and thereby most algorithms are excluded as they are rather abstract phenomena, i.e., they are in themselves non-technical.¹⁰

In summary, from a Danish perspective it seems that most data-related products do not classify as protected intellectual properties, with the primary exception being databases that express originality and where data are systematically or methodically arranged and can be individually accessed.

According to Danish contract law the parties are free to regulate the use of data provided under the terms and conditions of the contract. Data protection is heavily regulated, *inter alia* due to Denmark’s EU membership and thereby the application of the EU Global Data Protection Regulation.

Part One: Basic principles: Character, source and nexus

1.1. General overview

The Danish income tax system applicable to Danish tax residents is based on a principle of global taxation. Accordingly, all income (or economic benefits) realized by Danish tax residents is taxable—unless attributable to a foreign real estate or permanent establishment of Danish corporate tax residents.¹¹ Taxable income realized by Danish tax residents is generally taxed according to the net principle.

The Danish tax system applicable to taxpayers subject to Danish limited tax liability is of a schedular nature. Accordingly, non-Danish tax residents are only subject to Danish source taxation if the income may be classified as certain categories of income specifically listed in the relevant legislation.¹² Generally, such source taxation is imposed through a

⁹ Para. 17 of the preamble to the Database Directive.

¹⁰ Art. 52 (1) and (2) *litra a* of the European Patent Convention.

¹¹ Danish tax residency is determined according to s. 1 of the Danish Source Taxation Act [DK: Kildeskatteloven] with respect to individual taxpayers and s. 1 of the Danish Corporate Income Tax Act [DK: Selskabsskatteloven] with respect to corporate taxpayers. The principle of global taxation is stated in s. 4 of the Danish State Tax Act [DK: Statsskatteloven] and the modified territoriality principle applicable to corporate taxpayers is stated in s. 8 (2) of the Danish Corporate Income Tax Act [DK: Selskabsskatteloven].

¹² The categories of income subject to Danish limited taxation are stated in s. 2 of the Danish Source Taxation Act [DK: Kildeskatteloven] with respect to individual taxpayers and s. 2 of the Danish Corporate Income Tax [DK: Selskabsskatteloven] Act with respect to corporate taxpayers.

withholding obligation on the payer.¹³

In terms of classification of specific items of income, the relevant payment should be classified for tax purposes. In the absence of specific tax law definitions etc., private law often serves as the factual description of a phenomenon at hand. The prevailing view is that private law takes a guiding position towards tax law. In essence, this point of view implies private law prejudice and tax law respect of private law arrangements, concepts and terms etc. However, as Danish private law currently does not contain a specific definition and regulation of data, this does not offer much guidance in this specific regard.

Notably, while it is commonly acknowledged that the accounting treatment is the practical starting point for Danish tax purposes, any income or cost should be classified according to tax law principles, i.e., accounting principles and treatment of certain assets or income components are not binding for Danish tax purposes.

1.2. Character

Data as a stand-alone asset?

The characterization of data – and especially raw data – has previously not been dealt with publicly in a Danish tax law context and there seems to be no category of income or assets which would easily include data as a stand-alone asset. Consequently, companies utilizing data in a commercial setting must rely on the existing concepts and income components under Danish tax law.

No generally applicable definition of an asset exists for tax law purposes but as stated, the practical starting point for tax purposes is the accounting treatment (IFRS and IAS frameworks as well as the Danish Act on Financial Accounts). Generally, most assets categorized as assets for accounting purposes, should also be treated as an asset for Danish tax law purposes although this may not always be the case.

An asset is – for Danish accounting purposes – defined as “resources under the control of the company as a result of past events and from which future economic benefits are expected to flow to the company”,¹⁴ and accordingly, it seems difficult to argue that raw data, aggregated and structured data sets as well as algorithms should not, in principle, be considered assets provided that the company has sufficient control – not necessarily meaning the full legal ownership.

Furthermore, for accounting purposes, an asset should – and must – be recognized in the balance sheet when it is probable that future economic benefits will flow to the company and the value of the asset can be measured reliably.¹⁵ Presumably because of the challenges of valuing raw data collected by a company, it is our understanding that this – in practice – implies that raw data collected by a company is not recognized in the balance sheet. Similarly, the challenges of valuing aggregated and structured data sets as well as algorithms internally developed by the company will – in practice – imply that such assets are not recognized on the balance sheet for Danish accounting purposes. However, subject to several conditions and detailed regulation, aggregated and structured data sets as well as

¹³ The rules allowing for the withholding of tax are found in the Danish Taxation at Source Act ss. 65-65D for corporate taxpayers and in chapter V for individual taxpayers.

¹⁴ Annex 1, litra C no. 1 of the Danish Act on Financial Accounts [DK: Årsregnskabsloven].

¹⁵ S. 33 of the Danish Act on Financial Accounts [DK: Årsregnskabsloven].

algorithms considered a “development project” for accounting purposes, may be capitalized and hence recognized on the balance sheet.

It is possible that in some cases raw data, aggregated and structured data sets as well as algorithms to which control is acquired – and thereby provide a reliable value – may lead to a categorization as assets that should be recognized on the balance sheet for accounting purposes.

In light of the apparent accounting treatment, it is relevant to consider whether data – although typically not reflected on the balance sheet – should still be considered an intangible asset for Danish tax purposes. This is primarily of relevance with respect to tax depreciation of assets according to the Danish Tax Depreciation Act, which inter alia applies to know-how, patents, copyrights or trademarks.¹⁶ Tax depreciation requires that the intangible asset has been acquired and not built up internally. The definition of depreciable intangible assets is broad and may according to the wording also include other intangible assets, “such as” the intangible assets explicitly mentioned in the provision. While there is very little guidance on how to delineate the definition, it has previously been argued in the tax literature that only intangible assets “similar” to the listed assets may be within the scope¹⁷ but the exact scope is uncertain and could potentially develop over time in line with societal and technical developments.

In the context of big data transactions, we consider it most likely that raw data does not fall within the scope of the Danish Tax Depreciation Act. On the other hand, copyright protected databases should be within the scope of the Act. The above uncertainty with respect to the exact scope of depreciable intangible assets is then of primary relevance in other data-driven businesses including aggregated and structured data sets not being a copyright protected database and algorithms.

If covered by the Danish Tax Depreciation Act, the acquisition price of the intangible asset can be depreciated 1/7 for seven years.

If data should not be considered within the scope of intangible assets under the Danish Tax Depreciation Act, another option to be treated as an asset for Danish tax purposes, would be if data falls under the scope of section 5a of the Danish State Tax Act. The provision was introduced in 1903, and the wording does not even use the term asset directly but rather the term “formuegenstande”, which is predominantly translated into being assets or property in the absence of better alternatives. If data is falling under the scope of said provision any gains/losses on the disposal of data would be tax exempt/ non-deductible and not subject to tax depreciations. Capital gains/losses on “assets/property” (DK: formuegenstande) are only taxable to the extent the asset is acquired for speculative purposes or acquired as part of the taxpayer’s business with trade of data. Albeit a theoretical possibility exists to include data assets under the scope of section 5a of the Danish State Tax Act, we do not consider such a result very likely as the tax exemption in practice is extremely narrow.

In light of the above, those data assets not covered by the Danish Tax Depreciation Act – as well as data assets covered by the Danish Tax Depreciation Act with respect to

¹⁶ S. 40(2) of the Danish Tax Depreciation Act [DK: Afskrivningsloven] (unofficial translation): In the case of acquisition of other intangible assets such as special manufacturing method or similar (know-how), patent right, author and artist right and the right to a design or trademark or in the case of acquisition of the right under a yield contract, lease or rental contract.

¹⁷ Jakob Bundgaard & Louise Fjord Kjærsgaard, *Afståelsesbeskatning ved flytning af DEMPE-funktioner?* Tidsskrift for skatter og afgifter, TFS 2017, 668, pp. 668-672.

non-depreciation matters—should, in our view, be treated in accordance with the following principles.

Tax treatment of business transactions involving data

The most predominant tax consequences involving big data transactions seems to be whether the income generated is considered taxable income and whether the expenses connected with big data transactions are considered deductible business expenses. In this regard the Danish tax system for corporate tax residents is rather simple. Generally, income is considered taxable income, and generally no distinction has to be made as to the type of income in this regard. Only few income items are exempt from taxation, e.g., tax-exempt dividend distributions (participation exemption) and group contributions.

If raw data is not considered an asset/property [DK: formuegenstand] according to section 5 of the Danish State Tax Act, we consider it likely that any income arising from business transactions involving data, may be regarded as ordinary business income taxable according to section 4 of the Danish State Tax Act. The income is computed in accordance with the net principle, which implies that potential costs incurred in the context of the business, may be considered as deductible business expenses according to section 6 of the Danish State Tax Act. Deductibility requires that the relevant costs are incurred for the purpose of acquiring, securing or maintaining *taxable* income. In addition, deductibility requires that the cost in question is not used to broaden the income base, including start-up costs and establishment costs. Falling into this categorization would imply that the income is taxable, and in pure domestic transactions that there are no options to obtain tax exemption. The same tax treatment is generally applicable to income generated from intellectual property. In the context of big data transactions—including sale or access to raw data, aggregated and structured data sets as well as developed algorithms—income would also be taxed as business income.

On the buyer side, the purchase of or access to data (raw data, aggregated and structured data sets as well as algorithms) outside the scope of the Danish Tax Depreciation Act in a commercial transaction from another party, may be regarded as a business expense, which is deductible according to section 6 of the Danish State Tax Act provided that the relevant costs are incurred for the purpose of acquiring, securing or maintaining taxable income. In addition, deductibility requires that the cost in question is not used to broaden the income base, including start-up costs and establishment costs.

Cross-border issues

According to Danish domestic tax law, the term “permanent establishment”—whether a Danish or a foreign permanent establishment—should be interpreted according to the definition in 2017- version of the OECD Model Tax Convention and its Commentary. Income attributed to a permanent establishment is calculated as the income that the establishment could have obtained—including through its internal transactions with other parts of the enterprise of which the permanent establishment is a part—if it had been a separate and independent enterprise that was engaged in the same or similar activity under the same or similar conditions, taking into account the functions performed, the assets used and

the risks assumed by the undertaking concerned through the place of business.¹⁸ Stated otherwise, according to Danish domestic tax law the attribution of income to permanent establishments follows the direct method and an *unlimited* independence fiction of the permanent establishment. However, if an applicable tax treaty provides for another attribution of profits to the permanent establishment, the method provided in the tax treaty applies.

No provision exists on imposing withholding tax specifically on payments for digital products or services. However, payments classified as royalties are subject to Danish withholding tax,¹⁹ and in this regard royalty is defined as:

Royalties mean payments of any kind received as a consideration for the use of, or the right to use, any patent, trademark, pattern or model, plan, secret formula or process, or payments for information concerning industrial, commercial or scientific experience.”²⁰ (Unofficial translation)

Notably, if comparing the Danish domestic definition with the definition included in article 12 (2) of the OECD Model Tax Convention (and often implemented in Danish tax treaties), the definition excludes “payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films”. This is of great importance, since EDB²¹ including software is categorised as literary work under Danish copyright law.²²

Therefore, if software is not protected by a patent, payments paid as consideration for the use or the right to use software should *not* be classified as royalties for Danish domestic tax purposes.

Further, the wording “use of or right to use industrial, scientific or commercial equipment” is absent, if the Danish domestic definition of royalties is compared with the definition of royalties in article 12 (2) of older versions of the OECD Model Tax Convention (and implemented in some of the Danish tax treaties) and the definition of royalty in the Interest-/and Royalty Directive, implying that leasing fees for tangible property, such as servers, is not subject to withholding tax as a royalty.

Under Danish domestic tax law, there is no limited tax liability on capital gains from the alienation of digital products and services.

Hence, it is argued that the classification of income generated from digital products and services, including data-based products, will generally be limited to whether the payment should be classified as royalty and whether the provision of such products and services create a permanent establishment of the service provider to which the payment should be attributed. However, from a Danish domestic perspective, in the absence of a Danish permanent establishment to which the relevant payment may be attributed – only payments for the use or the right to use patented data-based products should be classified

¹⁸ S. 2 (2) and 8 (6) of the Danish Corporate Income Tax Act [DK: Selskabsskatteloven] and s. 2 (3) of the Danish Taxation at Source Act [DK: Kildeskatteloven].

¹⁹ S. 2, (1), no. 8 of the Danish Taxation at Source Act [DK: Kildeskatteloven] in respect of individuals and s. 2 (1), litra g of the Danish Corporate Income Tax Act [DK: Selskabsskatteloven].

²⁰ S. 65C (4) of the Danish Taxation at Source Act [DK: Kildeskatteloven] which contains the general royalty definition relevant with respect to Danish limited liability taxation.

²¹ Danish abbreviation for a group of assets equal to those covered by “Information Technology.”

²² S. 1 (3) of the Danish Copyright Act [DK: Ophavsretsloven].

as royalties and subject to taxation at source at a rate of 22% unless reduced or renounced by an applicable tax treaty or the Interest-/Royalty Directive.

Part Two: Application of treaty principles

2.1. General Overview

Denmark has a rather extensive tax treaty network comprising more than 70 applicable tax treaties. In general, Denmark generally adheres to the OECD Model Tax Convention as a basis for negotiating bilateral tax treaties and generally relies heavily on the OECD Commentaries when formulating and interpreting treaty provisions. Hence, most Danish tax treaties are based on the prevailing version of the OECD Model Tax Convention at the time of negotiation of a given tax treaty.

Denmark has however shown a willingness to rely on the UN Model Tax Convention when negotiating tax treaties with developing countries, adding emphasis to protecting the rights of the source country to tax, e.g. by allowing for source taxation on royalty payments, broadening the scope of the definition of royalties to also include technical services, technical assistance or industrial, commercial and scientific equipment as well as broadening the definition of permanent establishment to also include so-called service permanent establishments.

In approximately 40% of the Danish tax treaties payments classified as royalties may be taxed in the residence state as well as in the other state, i.e., shared taxing right.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

The arm's length principle is a fixed and well-established part of Danish tax law. Section 2 of the Danish Tax Assessment Act contains the arm's length principle regarding transactions between related parties. The arm's length principle is interpreted in accordance with article 9 of the OECD Model Tax Convention and the associated OECD Transfer Pricing Guidelines which are considered a crucial source of interpretation.

Currently, no official guidance exists with respect to the transfer pricing treatment of data and data driven transactions. Moreover, neither the Danish legislator nor the Danish tax authorities have indicated how they view data and data driven business models in the context of transfer pricing. However, we clearly expect Denmark to follow troop whenever international movements start to occur. As an example of the Danish tax authorities' reliance on the OECD Transfer Pricing Guidelines, seemingly the Danish tax authorities take the somewhat far-fetched position that DEMPE functions by themselves can be seen as an intangible asset not only for transfer pricing purposes but apparently also for domestic

substantive tax law. This position has been questioned in the international tax literature.²³

Inclusion of raw data in the context of transfer pricing, requires certainty with respect to the definition of data, the valuation principles which should be applied etc. Although no public indication seems available, we consider it likely that the Danish tax authorities would consider certain data transactions as hard-to-value-intangible transactions.

Part Four: Special regimes

Currently, Denmark has not proposed, implemented or is contemplating any digital services tax regime or any other taxes specifically targeting digital business models.

No specific tax incentives exist with respect to data driven business models. However, a generally applicable rule exists regarding deduction for trial and research costs beyond the scope of deductibility of ordinary business costs (due to COVID-19 temporarily increased to a 130% deduction).²⁴ Despite a narrow wording of the provision, it has seemingly been intended by the legislator that also development work should be included, i.e. use of scientific or technical knowledge to produce new or significantly improved materials, mechanisms or products, processes, systems or services. In our view, the development of software, the aggregation and structuring of data sets and the development of algorithms should fall within the scope. This seems to be supported by a ruling from 2016 regarding the development of an app (SKM2016.199 SR).

Finally, the current international debate on potential barter transactions and the tax implication of such transactions has not been considered in a Danish tax law context. However, since Danish tax residents are subject to tax on all economic benefits, whether in the shape of cash or assets of monetary value and whether originating from Denmark or abroad, in principle, it cannot be precluded that certain data transactions could be subject to tax on this basis.

Reference case studies

Data brokers/Information resellers

Based on the facts provided in the Directives for branch reporters, we find the following Danish tax treatment to be the most likely.

From the perspective of Broker Co as a separate corporate entity and considered a tax resident of Denmark, we find it likely that the payment made to Website Co and other suppliers for raw data, for domestic tax purposes should be considered a deductible business expense,²⁵ provided that the relevant costs are incurred for the purpose of acquiring, securing or maintaining taxable income of Broker Co and that the cost is not used to broaden the income base, including start-up costs and establishment costs. On the other hand, payments received by a Danish Broker Co from customers as consideration for the access to

²³ Jakob Bundgaard & Louise Fjord Kjærsgaard, *Afståelsesbeskatning ved flytning af DEMPE-funktioner?* Tidsskrift for skatter og afgifter, TFS 2017, 668, pp. 668-672.

²⁴ S. 8B of the Danish Tax Assessment Act [DK: Ligningsloven].

²⁵ S. 6a of the Danish State Tax Act [DK: Statsskatteloven].

data sets, would most likely be considered taxable income.²⁶ This tax treatment does not rely on any specific classification of the payment at hand, since all business income is, generally, considered taxable income. Based on the facts of the example, we consider it unlikely that Broker Co in any event should be allowed tax depreciation for data gathered or accessed through an application program interface. Further, in a situation, where Broker Co merely purchases raw data and sells access to structured data – without physical interference – this should clearly fall outside the Danish definition of a permanent establishment.

From the perspective Website Co as a separate corporate entity considered a tax resident of Denmark, we find it likely that the payment made by Broker Co as consideration for raw data, for Danish domestic tax purposes should be considered taxable income.²⁷ This tax treatment does not rely on any specific classification of the payment at hand, since all business income is, generally, considered taxable income. In a situation, where Website Co only sells raw data – without physical interference – this should clearly fall outside the Danish definition of a permanent establishment.

From the perspective of Danish business customers of Broker Co, we find it likely that the payment made to Broker Co as consideration for raw data, for Danish domestic tax purposes should be considered a deductible business expense.²⁸ This is provided that the relevant costs are incurred for the purpose of acquiring, securing or maintaining taxable income of the customers and that the cost is not used to broaden the income base, including start-up costs and establishment costs. In a situation, where customers merely purchase access to structured data – without physical interference – this should clearly fall outside the Danish definition of a permanent establishment.

From the perspective of Danish tax treaty policy, where merely raw data is purchased/sold and access to structured data is purchased/sold – without physical interference – this should clearly fall outside the definition of a permanent establishment according to the existing Danish tax treaty practice.

In respect of classification of payments as consideration for raw data and access to structured data sets, it seems decisive whether intellectual property protection is granted according to Danish legislation on copyright protection. Insofar intellectual property protection is granted, tax treaty classification as royalty may occur in accordance with Danish tax treaty provision *ad modum* article 12 of the OECD Model Tax Convention. This is provided that the access acquired would have constituted an infringement of the protected rights going beyond what is necessary in order to display or download the information.

We believe that raw data would never fulfill the criteria for copyright protection, whereas in the case of aggregated and structured data set, this will depend on the specific facts and circumstances with regard to the originality of the structured data set. However, for domestic tax purposes, the narrow definition of royalty entails that such potential royalty classification could not occur, since not even payments as consideration for the right to use a copyright protected asset fall within the scope of the domestic royalty definition.²⁹

Denmark has not implemented or is contemplating a digital services tax or similar taxes targeting transactions included in this example.

²⁶ S. 4 of the Danish State Tax Act [DK: Statsskatteloven].

²⁷ S. 4 of the Danish State Tax Act [DK: Statsskatteloven].

²⁸ S. 6a of the Danish State Tax Act [DK: Statsskatteloven].

²⁹ S. 65 C (4) of the Danish Taxation at Source Act [DK: Kildeskatteoven].

Data feeds

Based on the facts provided in the Directives for branch reporters, we find the following Danish tax treatment to be the most likely.

From the perspective of Animal Data Co as a separate corporate entity and considered a tax resident of Denmark, we find it likely that the payment made by Information Site Co as consideration for the provision of continuous feed showing migration patterns and predictions should most likely be considered taxable income.³⁰ This tax treatment does not rely on any specific classification of the payment at hand, since all business income is, generally, considered taxable income. Based on the facts of the example, we consider it most likely that Animal Data Co under no circumstances should be allowed tax depreciation for raw data gathered or maps of predicted animal density at various future points of times created through analytic tools developed internally. Further, in a situation, where Animal Data Co merely sells access to structured data – without physical interference – this should clearly fall outside the Danish definition of a permanent establishment.

From the perspective of Information Site Co as a separate corporate entity and considered a tax resident of Denmark, we find it likely that the payment made to Animal Data Co as consideration for the continuous feed showing migration patterns and predictions on the website of Information Site Co, for domestic tax purposes should be considered a deductible business expense.³¹ This is provided that the relevant costs are incurred for the purpose of acquiring, securing or maintaining taxable income of Information Site Co and that the cost is not used to broaden the income base, including start-up costs and establishment costs. Accordingly, Information Site Co is not eligible for tax depreciation. Further, in a situation, where Information Site Co merely purchases news feed – without physical interference – this should clearly fall outside the Danish definition of a permanent establishment.

In a scenario where data is exchanged for the news feed, in principle, such alternate remuneration should in our view also be subject to taxation (we have not addressed special tax exception regimes for non-profit NGOs in this regard). The current international debate on potential barter transactions and the tax implication of such transactions has not been considered in a Danish tax law context; hence, it cannot be precluded that both recipients are taxable of economic benefits realized.

From the perspective of Danish tax treaty policy, where merely news feed is purchased/sold – without physical interference – this should clearly fall outside the definition of a permanent establishment according to the existing Danish tax treaty practice.

In respect of the classification of payments – whether in cash or in kind – as consideration for newsfeed continuously showing on the recipient's website, it seems unlikely that the payment should be classified as royalties for tax treaty purposes as the payment should not be considered paid for *the right to use* a protected intellectual property except as may be necessary in order to display the information. Instead, we consider it likely that the sale of news feed should be classified as the provision of a service and thereby business income in accordance with Danish tax treaty provisions *ad modum* article 7 of the OECD Model Tax Convention.

Since the income arising from the sale of news feed should be classified as business

³⁰ S. 4 of the Danish State Tax Act [DK: Statsskatteloven].

³¹ S. 6a of the Danish State Tax Act [DK: Statsskatteloven].

income for domestic tax purposes and since there is no permanent establishment, Danish taxation would not occur unless the recipient is a Danish tax resident.

Denmark has not implemented or is contemplating a digital services tax or similar taxes targeting transactions included in this example.

Performance data analytics

With respect to the example in the Directive for branch reporters regarding performance data analytics, a rather recent Danish tax ruling from the Tax Assessment Board³² has been issued (published as SKM 2019.643.SR). Due to the overlap in factual circumstances, we consider it relevant to explain the ruling in detail rather than considering the fictitious example.

The case concerned a company (“the taxpayer”) which was a manufacturer of and sold machinery. The taxpayer was tax resident in another EU country and the machines produced were distributed through local importers (independent of the manufacturer), to resellers who were in charge of the final sale to the end-customers.

The taxpayer intended to introduce a new business model in many European markets, including the Danish market. This business model would imply that the taxpayer offered several new features that could be purchased and activated in the machines. The taxpayer referred to the functions as “x-service” and “y-service”, respectively. The option for purchasing these features could be given by the reseller at the time of the sale of the machine or at a later point in time.

The taxpayer intended to install a special hardware and software in future machines produced so that it would be possible for the owner of the machine to purchase “x-service” and “y-service”. All hardware components would have at least one feature at the time of delivery, whereas additional features could be activated for the hardware components when purchasing “y-service”. Hence, there would be hardware and inactive software installed and transferred to the buyer in connection with the sale of the machine. In other words, the taxpayer would sell machines that contained software but would not be available to the owner until it was activated.

After purchasing the machine, the owner could choose to activate additional hardware features as well as the inactive software by purchasing one or more “x-service” and “y-service”. This could happen in connection with, or immediately after, the purchase or at a predefined later time. If the owner did not purchase activation of the “x-service” and “y-service”, the owner would still have ownership of the inactive hardware and software, as this would be installed in the machine from the factory. Stated otherwise, the taxpayer intended to produce and sell machines containing an “option” for activating “x-service” and “y-service”.

The hardware and software would be installed in all machines of a given model, and thus it would not be possible to deselect this installation, i.e., the pre-installed inactive hardware and software was not an additional purchase but instead standard equipment for a given model.

“x-service” were features in the form of software installed in the machine that the owner

³² The Danish Tax Assessment Board (DK: Skatterådet) is the highest tax assessment body in Denmark. The body has 19 members – six are elected by the Parliament and 13 by the Minister for Taxation. One of its most important tasks is to issue advance binding rulings to taxpayers applying for such rulings.

of the machine (with the pre-installed inactive hardware and software in the machine) would be able to activate. The “x-service” consisted of many different features such as online information and Google. This would be additional software features that the owner could purchase from the retailer and subsequently activate through the application “X-app”, which was intended to be developed by the taxpayer.

“Y-service” were features in the form of hardware and software components, which were pre-installed in the machine, from which the owner could purchase activation. The functions were not available to the owner unless the owner had purchased an activation of one or more of the features. The “y-service” consisted of several different functions.

Activation of “x-service” and “y-service” could be purchased individually, so that the owner could choose to activate exactly the features that met his/her needs.

If the owner chose to purchase one or more “x-service” or “y-service”, the owner acquired the right to use the pre-installed hardware and software in the machine for the feature(s) purchased. Activation of the features was subsequently done electronically. Thus, the taxpayer did not have offices or other workplaces available in Denmark. Likewise, the taxpayer had no employees in Denmark or in any other way authority to instruct representatives in Denmark, as the importers as well as the resellers were independent of the taxpayer’s Group. In addition, the servers used to activate the features were located in another country.

Activation of any features purchased would follow the machine throughout its economic life, i.e., if one or more features were activated and the machine was resold, the new owner would also be able to use the features that had been purchased and activated by a previous owner. The taxpayer intended, however, that at a later point in time, it should be possible for the purchased features to follow the user rather than the machine.

The taxpayer was and remained the owner of any intellectual property rights associated with the “x-service” or “y-service”. Thus, the buyer would only acquire a right to use the purchased features, whereas any patent, brand, trademark, etc. as well as the right to deploy underlying or related intellectual property rights remained exclusively with the taxpayer.

If the owner wanted to activate one or more “x-service” or “y-service”, a voucher could be purchased from the reseller, which could subsequently be used to activate these features. When purchasing a “y-service”, there would be an electronic “unlocking” of the hardware and software contained in the machine for use in the features.

The taxpayer asked the Danish Tax Assessment Board to confirm:

1. That the proposed business model did not create a permanent establishment of the taxpayer in Denmark?
2. That the payments paid as consideration for the activation of a software/hardware features (i.e., “x-service” or “y-service”) should not be classified as royalty payments?

In answering whether a permanent establishment would be created, the Danish Tax Assessment Board first analyzed the three cumulative conditions known under article 5 (1) of the OECD Model Tax Convention.

Regarding the assessment of whether the taxpayer had a place of business at its disposal in Denmark, reference was made to the OECD Commentary from 2017 and it was stated that machinery and other equipment in some cases could constitute a place of business *if* the enterprise had the equipment at its disposal. Specifically, it was the hardware and software being a prerequisite for activating the “x-service” or “y-service”. As the equipment would be at the disposal of the owner, further, that it would be the owner who could activate and

deactivate the features, the Danish Tax Assessment Board stated that the equipment could not be considered to be at the disposal of the taxpayer.

The question was then whether, when activating the features, the taxpayer could be considered to have a permanent establishment as a result of traditional E-commerce, as the purchase could take place directly through the online platform developed by the taxpayer. With reference to paragraph 123 of the OECD Commentary from 2017, the Danish Tax Assessment Board analyzed the familiar distinction between websites and servers and stated that while the website could not constitute a permanent establishment, a server could. Reference was made to administrative practice, according to which the decisive factor is whether the company exercises control over or operates a server in Denmark. Based on this, and the fact that the servers from which the activation of the features took place were located outside Denmark, they could not constitute a permanent establishment of the taxpayer in Denmark.

The second question, i.e., whether the payment paid as consideration for the activation of a software/hardware feature should be classified as a royalty payment for domestic tax purposes and thereby whether the taxpayer would be subject to Danish limited tax liability on royalty payments. The Danish Tax Assessment Board concluded that when activated, the owner of the machine would only be able to use the relevant features, i.e., the owner obtained no right to use patents, trademarks or any other assets included in the royalty definition. Thus, the owner would only be able to utilize features that were already built into the machine, but not a right to the underlying software or hardware.

With reference to paragraphs 12-14 of the Commentaries on article 12 of the OECD Model Tax Convention, it was stated that payments should be classified as business income under article 7 if the right to use software was limited to those necessary to use the program on the buyer's computers or networks and reproduction for other purposes was not permitted under the license agreement. It was the opinion of the Danish Tax Assessment Board (with reference to another advance binding ruling published as SKM 2019.223 SR), that the rights to the underlying software remained with the taxpayer, while the customer was given the right to use the functions that the software made possible. For these reasons, the payments paid as consideration for the activation of the "x-service" or "y-service" were not within the scope of the definition of royalties.

In conclusion, the Danish Tax Assessment Board decided that the taxpayer would not be subject to Danish limited tax liability in the suggested business model.

As also stated in the ruling explained above, servers and data centers may – if they are owned, controlled or operated by a non-resident company – constitute a permanent establishment. This assessment may be illustrated through another Danish case in the form of an advance binding ruling from the Danish Tax Assessment Board published as SKM 2016.188.SR.

In the decision, a Danish located datacenter including servers and other equipment was owned by a Danish subsidiary of a foreign parent company. Employees of the Danish subsidiary would run, operate and maintain the server farm and according to an intragroup agreement deliver server capacity to host the webpage of the parent company on arm's length terms. All work related to the webpages and applications would be performed in a way whereby all software, add-content and all data would be stored on the servers located on different addresses. The parent company did not operate with country specific webpages, i.e., all customers would have access to one common webpage, but add-content would be directed towards specific customers based on their demographics.

The Danish subsidiary would not be granted permission to use or handle the data stored

on the servers, which was controlled by the foreign parent company, unless the Danish subsidiary acted as service provider on behalf of or under instructions from the parent company. The Danish subsidiary would not take part in any agreement, thereby allowing the company to provide any services directly to customers, advertisers or developers and would also not legally obligate or create obligations for the parent company. Personnel employed by the Danish subsidiary or working under contract for the Danish subsidiary would primarily be responsible for the daily management, including installation, operations, maintenance and reparations of the equipment installed in the datacenter. The employees working in the datacenter would follow the instructions received by the relevant management teams with respect to daily operations and maintenance of the datacenter. Access to the datacenter would be restricted to the employees of the Danish subsidiary as well as certain service providers.

The parent company and a small group of its employees would be granted permission to visit the datacenter but only if accompanied by employees of the Danish subsidiary. The parent company's own employees – located outside Denmark – would handle the webpage through remote access. Such employees would have the possibility to monitor the efficiency of the hardware and software installed in the datacenter as well as to install and uninstall applications, to carry out maintenance of the hosted applications and finally to handle the software and data stored on the servers. In case a server would not work correctly (or in another situation of emergencies), this server could be shut down using the remote access, which also enabled redirecting the data to other servers. Finally, it was stated that such remote access would not differ from the standard terms seen in any cloud computing arrangement.

The Danish Tax Assessment Board ruled that the Danish subsidiary did not constitute a permanent establishment for the parent company as the parent company should not be considered to own, lease or operate the servers but instead to pay an arm's length service fee for the hosting services provided by the Danish subsidiary. On this basis, the Danish Tax Assessment Board referred to paragraph 42.2. of the OECD Commentary to article 5 of the OECD Model Tax Convention (2014) by stating that an agreement with an internet service provider according to which a website is stored on a server belonging to the internet service provider, typically does not result in the server and the location of the server to be at the disposal of the company, even if the company has been able to determine that its website should be stored on a specific server at a specific location. The Danish Tax Assessment Board concluded that the parent company should only be considered to have a permanent establishment in Denmark if the company would exercise control over a server *as if the parent company in fact owned the servers or operated the servers* of the Danish subsidiary. Based on the facts, no such access was present since the parent company did not have the right to instruct or control the work of the employees of the Danish subsidiary. Moreover, the parent company would generally not have physical access to the servers and the remote access could not be regarded as the right to dispose over the servers. On this basis, de facto control over the servers did not exist and, as a result, no permanent establishment would be created. It should be noted that the Danish Tax Assessment Board made the reservation that all the agreements between the companies should be concluded on arm's length terms.

Somewhat similar decisions have been made in other advance binding rulings given by the Danish Tax Assessment Board, e.g., SKM 2015.369 SR, where a Danish resident company according to a contract would receive certain services but did not obtain further rights. Hence, the Danish company would be responsible for the operation and maintenance of the content placed on the servers, i.e., software and data, while the service provider

would be responsible for the operation of the servers and could change functions after notifying the Danish company. On this basis, the Danish Tax Assessment Board found that the Danish company could not be considered to have facilities available from which its business activities were performed and therefore its foreign activities did not constitute a permanent establishment.

Analytic based consultancies

From the perspective of Consultant Co as a separate corporate entity and considered a tax resident of Denmark, we find it likely that the payment made by Educational Institutions for consultancy services and by researchers for the access to the database should most likely be considered taxable income.³³ This tax treatment does not rely on any specific classification of the payment at hand, since all business income is considered taxable income. Based on the facts of the example, we consider it unlikely that Consultant Co in any event should be allowed tax depreciation for the accumulated data set. Further, in a situation, where consultant services or access to the database is being sold – without physical presence of Consultant Co – this should fall outside the Danish definition of a permanent establishment.

From the perspective of the Educational Institutions and assuming that such institution would have been taxable in Denmark (as a general rule, state-owned institutions are tax exempt), payments for consultancy services should most likely be deductible as a business expense.³⁴ This is provided that the relevant costs are incurred for the purpose of acquiring, securing or maintaining taxable income of the Educational Institutions and that the cost is not used to broaden the income base, including start-up costs and establishment costs. Further, in a situation, where consultant services are being purchased – without physical presence of Educational Institution in the country of the supplier – this should clearly fall outside the Danish definition of a permanent establishment.

From the perspective of the researchers had they been Danish tax residents, payments for the access to databases are deductible insofar that the researchers are engaged in the conduct of a taxable business in Denmark. This is provided that the relevant costs are incurred for the purpose of acquiring, securing or maintaining taxable income of the researcher and that the cost is not used to broaden the income base, including start-up costs and establishment costs. Based on the facts of the example, we consider it most likely that the researchers under no circumstances should be allowed tax depreciation for access to the database. Further, in a situation, where access to the database is being purchased – without physical presence of researchers in the country of the supplier – this should fall outside the Danish definition of a permanent establishment.

From the perspective of Danish tax treaty policy, where access to the database is purchased/sold and consultancy services are purchased/sold – without physical presence – this should fall outside the definition of a permanent establishment according to the existing tax treaty practice.

In respect of the classification for tax treaty purposes of payments paid by Educational Institutions as consideration for consultancy services, it seems unlikely that the payment should be classified as royalties for tax treaty purposes as the payment should not be

³³ S. 4 of the Danish State Tax Act [DK: Statsskatteloven].

³⁴ S. 6a of the Danish State Tax Act [DK: Statsskatteloven].

considered paid for *the right to use* a protected intellectual property (i.e., potentially the database). Instead, we consider it likely that the provision of consultancy services (based on information from the database) should be classified as business income in accordance with Danish tax treaty provision ad modum article 7 of the OECD Model Tax Convention. Conversely, payments paid by researchers as consideration for access to the database, could be classified as royalties according to Danish tax treaty provision ad modum article 12 of the OECD Model Tax Convention provided that the payment is considered paid for *the right to use a protected intellectual property*. However, for domestic tax purposes, the narrower royalty definition would entail that Danish source taxation under such potential royalty classification could not occur, since any payment paid as consideration for the right to use a copyright protected asset (including protected databases) falls outside the scope of the domestic royalty definition.³⁵

³⁵ S. 65C (4) of the Danish Taxation at Source Act [DK: Kildeskatteloven] which contains the general royalty definition relevant with respect to Danish limited liability taxation.

Summary and conclusions

Despite the major societal benefits that arise from the data sector, there is no comprehensive approach adopted in Finland to ensure the legal protection of private investments made in data. There are legal tools that safeguard the investor, but these instruments are not arranged to constitute an all-encompassing system with a clear underlying principle, such as the protection of economic investment by itself. One likely reason for this is that the data sector is not particularly dependent on legal protection because, among other things, data can also be made excludable through technical protection. Also maximizing the social wellbeing from data requires not only incentives for data businesses but also, and perhaps foremost, access rights for the public.

The relevant legal instruments that protect investments made in data vary from ownership-like property rights to regulation concerning trade secrets as well as contract law. All of them are also relevant when assessing the tax treatment of data related payments. Copyright safeguards creative human effort by granting the author exclusive rights to dispose of his/her original work, for example a computer program. In some cases, software may also be patented. Copyright does not, however, protect mere ideas, including mathematical concepts such as algorithms, or efforts that require money, time and expertise but not much creativity. To also protect the labour and skill required for putting the product together, the Finnish copyright law provides for so-called neighbouring rights. The producer of a database is protected by the EU law based *sui generis* right and the producer of a catalogue containing large amount of information is protected by the catalogue right, which is a domestic law concept that is based on Nordic copyright tradition. Further protection to safeguard valuable business information is provided by legislation that concerns so-called trade secrets. Protection of data is routinely strengthened beyond statutory protection by concluding non-disclosure agreements.

There are no specific laws in Finland concerning the income taxation of data transactions. Accordingly, there are, for example, no special nexus rules that would apply. When a Finnish resident company receives income from a data transaction from Finland or elsewhere, in Finnish domestic tax law it does not matter much what the precise character of that income is. In any case it is income that is taxable in Finland. The possible tax paid in the source state for the same income is usually creditable in Finland even if there is no tax treaty. When a non-resident company receives income from a data transaction, the classification of that income does matter also in domestic law because it depends on the income type what kind of connection to Finland is required for the income to be taxable in Finland. The importance of the classification of the data payment, in general terms, is in that if the payment qualifies as royalty it may be taxed in Finland without the non-resident having physical business presence here. Instead, if the payment qualifies as business income or capital gain it cannot

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be taxed in Finland unless it is connected to a physical business presence in Finland. the definition of royalty in Finnish domestic tax law is virtually like the definition of royalty in article 12(2) of the OECD Model. Accordingly, and because there is not much domestic guidance available, the OECD Commentaries are an important source of interpretation regarding the concept of royalty, also in Finnish domestic law.

Finland has an income tax treaty with close to 80 countries including all major trading partners except for Portugal. The provisions in Finland's tax treaties concerning the taxing rights over business income and capital gains from movable property are essentially like the provisions in the OECD Model. Accordingly, in a tax treaty situation business income and capital gain from movable property is taxable only in the residence state of the recipient unless the income is connected to a permanent establishment in the paying state. The provisions in Finland's tax treaties concerning the taxing rights over royalties are not uniform. Some treaties follow the OECD Model in that exclusive taxing rights are given to the residence state. Most treaties, however, also assign taxing rights to the source country. Those taxing rights are usually limited to 5, 10 or 15 percent of the gross amount of the royalty but there may be different rates in individual treaties. The definition of royalty in Finland's tax treaties is generally like in article 12(2) of the OECD Model. There are, however, some specific features in the royalty definition of Finland's tax treaties compared to the OECD Model and Finnish domestic law that are relevant in the context of big data.

In the transfer pricing rules of Finnish domestic law and tax treaties, there is no definition of an intangible or a data transaction or any other special provision that would apply in the context of big data. There is also no published case law in Finland concerning the transfer pricing of data transactions or any other relevant intangible. Accordingly, the OECD guidelines are in practice the most important and, in most cases, the only available source of interpretation of the arm's length principle with respect to tax treaties as well as domestic law.

There are no special regimes that might apply to the development and sale of big data enabled goods or services. Research and development costs are deductible as current expenses unless the taxpayer wishes to capitalize them, in which case the taxpayer may also choose the applicable amortization period. Data acquisition costs, unless considered as research and development costs, are deductible either as current expenses or capital expenditures depending on whether they are expected to generate income for more than three years.

The VAT treatment of data transactions in Finland is based on the VAT Directive of the European Union. For VAT purposes, data transaction is a supply of service notwithstanding whether the supplied material and information is subject to any intellectual property right or not. There are no special rules or case law in Finland concerning the VAT treatment of data transactions.

Introduction: Legal background

Global telecommunication networks and the services and devices connected to those networks enable effortless collection of vast amounts of information in digital form, i.e. data. This data can be stored and processed with increasingly low costs. Data is collected from almost all activity that takes place on the internet. Data is also more and more collected from other sources, such as sensors in physical infrastructure (machines, cars, home devices) and satellite monitoring systems. Data contains all kinds of material from personal data to

weather information. The combination of enormous data sets, sophisticated data analytics tools and plenty of computing ability can provide new information on practically any aspect of the world on an unprecedented scale. Data is, together with human intelligence, the most important resource of the digital world.

In order to facilitate the accumulation of the societal, scientific and economic benefits provided by data and data processing there needs to be an incentive for public and private operators to engage in the development of the data sector. For private operators the most important incentive is the ability to profit from their investments in data. Accordingly, legal instruments that protect those investments are necessary in establishing the ground for data driven businesses. That said, the data industry may not be particularly dependent on legal protection because, among other things, data can also be made excludable through technical protection. For example, a manufacturer of connected devices can technically control access to the machine-generated data, without having to rely on any legal protection, and monetize that data by, for example, entering into license agreements that allow third parties to use the data in their businesses. Also, the value of data often declines rapidly which may make long-term legal protection unnecessary in many cases. At the same time, maximizing the social wellbeing from data requires not only incentives for data businesses but also, and perhaps foremost, access rights for the public. All this may help to explain why in Finland, or in the European Union for that matter, there is no comprehensive approach adopted to ensure the legal protection of data. There are legal tools that safeguard the investor, but these instruments are not arranged to constitute an all-encompassing system with a clear underlying principle, such as the protection of economic investment by itself. Instead, the system is a combination of different approaches and it may be somewhat coincidental which type of legal protection is provided, if any. The relevant legal instruments vary from ownership-like property rights in data to regulation concerning trade secrets as well as contract law.

The basic principle in Finland, and most likely in any other country too, is that for various societal and practical reasons information as such, whether in digital form or non-digital form, cannot be owned. Many people may use the same information at the same time without anyone losing information content in favour of the others. This is sometimes called non-rivalry of information. Due to the element of non-rivalry, the legal concept of ownership is more suitable for material objects than anything intangible. Accordingly, the legal protection of intangibles, ranging in the big data context from unprocessed data sets to sophisticated data analytics software, is based on other instruments than simple ownership. The common feature of these protective instruments is that they restrict the ways others can use the protected intangibles. Most of the instruments also have a temporal limitation because indefinite exclusivity over the use of information would have negative impact on the technical and intellectual development of the society.

Some of the legal instruments that protect rights over intellectual property are the result of Finnish domestic legal tradition but most of them are founded on multinational regulation. Finland has implemented in its national legislation the relevant European Union directives in the field of intellectual property rights.² In addition, Finland has signed and

² They include Directive 2009/24/EC on the legal protection of computer programs, Directive 2004/48/EC on the enforcement of intellectual property rights, Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the information society, and Directive 96/9/EC on the legal protection of databases. Directive (EU) 2019/790 on copyright and related rights in the Digital Single Market will be implemented in 2022.

ratified the relevant international agreements in the field of intellectual property rights including the Agreement on Trade-Related Aspects of Intellectual Property Rights (1995), the Berne Convention for the Protection of Literary and Artistic Works (1886) and the WIPO Copyright Treaty (1996).

We'll begin the analysis from the classic concept of copyright, which has been part of the Finnish legal system since Finland signed the Berne Convention in 1928 and even before that. The current Copyright Act, which was prepared in cooperation with other Nordic countries, entered into force in 1961 and has been significantly modified after that, among other things, to implement the European Union copyright legislation.

Copyright

To advance creativity in the society, Finnish law provides copyright protection over the outcome of creative effort by granting the author exclusive rights to dispose of his/her original work. In the core of these exclusive rights are the economic rights to reproduce the work and to make it available to the public. In addition, there are moral rights to have the name of the author associated with the work and the right to object to derogatory treatment of the work (sections 1 and 2 of the Copyright Act). To enjoy copyright protection, no registration or other formality is required, the single fact of creation is enough. Copyright protection lasts until 70 years has passed from the author's death (section 43 of the Copyright Act).

Section 1 of the Copyright Act contains a list of examples of works that are in the scope of copyright. The list includes artistic works, such as musical compositions, movies and photographs, and literal works. It is specifically mentioned in subsection 2 that maps and other descriptive drawings or graphically or three-dimensionally executed works and computer programs shall also be considered as literary works. Even though not specifically mentioned in the Copyright Act, it is confirmed in section 1.1.3.1 of the Government Bill 161/1990 that a database may also be in the scope of copyright.

To get copyright protection a computer program, a database, or any other work, must meet the general requirement of originality. Copyright can be granted only when the work is an original outcome of independent creative undertaking. There must be original choices made by the author that are not apparent to other persons with the same set of skills. Works, whether in a digital or non-digital form, that only represent mechanical processing of information cannot be protected by copyright. Also, mere ideas behind the creative literal expressions, including mathematical concepts as such, are not protected. Accordingly, for example, an algorithm is not eligible for copyright protection as specifically stated in section II.1.2. of the Government Bill 161/1990. It also seems unlikely that an application programming interface (API) would receive copyright protection in Finland.

The most recent case of the Finnish Supreme Court concerning the concept of originality required for copyright protection of literary works dates to 2005. In the case KKO 2005:43, the Supreme Court decided that lists of selected words presented in schoolbooks of foreign language did meet the originality requirement as they were not simply mechanically collected word lists but expressed the creativity of the author. General conclusion to be made from the ruling is that the originality threshold is not set particularly high, but some level of creativity must be present.

Regarding computer programs, preparatory works of the Copyright Act set an assumption that usually computer programs are protected by copyright and only the most trivial ones

that represent very little original choices of the program writer are not.³ This conclusion is further strengthened by the statements of the Copyright Council, which is a body that issues statements on the application of the Copyright Act (section 55 of the Copyright Act). For example, in the statement 1997:12 the Copyright Council regarded a computer program that consisted of 140 rows of commands, that is six A4 sized pages, as an original literary work. The program was executed with a somewhat rudimentary computing language for a somewhat limited and mechanical function of adapting different components in the production line of a bakery. There is, however, one notable exception to the general rule that computer programs are usually in the scope of copyright. If a computer program is generated by another computer program, it seems unlikely that the machine-generated computer program would be protected by copyright, which is a concept intended to protect creative human undertakings. Same applies to, for example, computer-generated maps.

With respect to databases, the preparatory works of the Copyright Act set a different presumption concerning the availability of copyright protection compared to computer programs. According, to section 1.1.3.1. of the Government Bill 161/1990, even though a database may in principle be protected by copyright just like any other literary work if it is organized in a sufficiently creative and original manner, most databases maintained by companies and public authorities would not be protected by copyright but rather by the so-called neighbouring rights (see below).

From the perspective of the reference case studies, all this means that any data analytics software that was mentioned in the first three cases would be eligible for copyright protection in Finland to the extent that it qualifies as a computer program with at least some level of originality. However, if the analytics tool is so simple that it requires only mechanical input from the program writer or it is machine-generated or it is just a mathematical concept like an algorithm, copyright protection would not be available. Same applies to computer-generated maps in the second case study. Application program interfaces mentioned in the first case would also be outside the scope of copyright. Regarding the main issue, i.e. the data transactions that appear in the case studies, it seems that there are only sets of data that have been mechanically processed for particular purpose, for example by excluding irrelevant information and arranging the data to be more accessible but lack originality. Therefore, any of the datasets in the reference cases would not receive copyright protection.

Neighbouring rights (copyright-like protection)

In assessing the availability of copyright only originality counts and the labour and skill required for putting the product together is irrelevant.⁴ However, from a wider societal perspective it is desirable to advance not only creative efforts but also undertakings that require money, time and expertise. Accordingly, another type of protection is provided for outcomes of processes that involve considerable investments but are too technical to get copyright. Chapter 5 of the Copyright Act contains provisions on so-called neighbouring rights, which resemble copyright but are to some extent different, especially regarding the duration of the protection. The neighbouring rights include the protection of the rights of a performing artist, a producer of sound and video recording, a radio and television

³ S. 11.1.2. of the Government Bill 161/1990.

⁴ See, for example, decision of the European Court of Justice in C-604/10, Football Dataco.

organisation, a photographer and, most importantly for the present topic, the protection of a producer of a database and a producer of a catalogue. The producer of a database is protected by the EU law based *sui generis* right, which will be discussed next. The protection of a producer of a catalogue containing large amount of information is a domestic law concept that is based on Nordic copyright tradition. It will be discussed after the *sui generis* regime.

Sui Generis right

According to paragraph 2 of section 49.1 of the Copyright Act, a person who has made a database the obtaining, verification or presentation of which has required substantial investment, shall have the exclusive right to control the whole or, in qualitative or quantitative terms, a substantial part of the database, by making copies of it and by making it available to the public. The wording corresponds to the Directive 96/9/EC on the Legal Protection of Databases ("Database Directive") which, according to the 10th and 12th recitals of its preamble, is intended to encourage the development of systems performing a function of storage and processing of information. *Sui generis* protection does not apply to non-substantial parts of the database or individual material or information within the database. Accordingly, the *sui generis* protection prohibits taking out all or a substantial part of the database to be reproduced elsewhere but not individual items of information within the database. From a practical perspective it should be noted, however, that once the producer of the database publishes the content of the database, it will be difficult to prevent third parties from utilizing that content, for example, by employing data analytics to the database. Accordingly, the *sui generis* protection of a database links with the protection of the database as a practical manner through technical prevention of non-authorized use.

The duration of the *sui generis* protection is 15 years from the year in which the database was completed or made available to the public.⁵ However, if the database or a part of it is also subject to copyright, copyright may be invoked and the 70-year copyright protection can be applied.

There is no definition of a database in Finnish law. However, already linguistic deliberations suggest that if there is only a bulk of material or information, without any level of organization and systematization, it can hardly be called a database. This conclusion is in line with the statement on page 12 of the Government Bill 170/1997 that so-called raw data is usually not in the scope of the *sui generis* protection. Examples that are mentioned in the Government Bill of such cases are data collected from Earth observation satellites or meteorological observation systems as well as genetic information. Moreover, the definition of a database in the Database Directive clearly only covers processed data. According to article 1(2) of the Directive, a database is a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.⁶ In the decision C-444/02 *Fixtures Marketing*, the European Court of Justice further elucidated the concept of a database in a way that implies that a bulk of

⁵ One issue regarding the duration of *sui generis* protection in big data context is that according to art. 10(3) of the Database Directive, any substantial change to the contents of the database that could be considered to be a new investment, will cause the term of protection to start again. This could in principle lead to indefinite protection of dynamic databases.

⁶ See also 13th and 17th recitals of the preamble of the Database Directive.

data may become a database in the sense of the Directive if there is some basic level of processing, for example, by excluding non-relevant data, and a way to access individual pieces of material and information within the database, for example, by a search engine.⁷

The Fixtures Marketing decision, however, laid down one significant limitation on the scope of the *sui generis* regime. The court stated that the resources used for the creation of materials which make up the contents of the database are not investments made for obtaining, verification or presentation the database. This position has brought with it ambiguity regarding the scope of the *sui generis* regime especially in the big data context. It will often be difficult to determine whether the resources required for a machine-generated database to come into existence are of such nature that they can be considered as investments made for obtaining, verifying or presenting the database.

From the perspective of the reference case studies the general conclusion would be that the *sui generis* protection could apply in any of them except maybe the Performance Data Analytics case. Data brokers, as described in the first case study, typically do not just deal with raw data, such as individual's name, age, gender or address, but they process that data into more sophisticated datasets that contain information derived from the raw data, for example, concerning the individuals' potential interest in various consumer products. Such datasets could well be in the scope of the *sui generis* regime. Same goes for the student information database in the Analytics Based Consultancies case. Computer-generated maps, which are mentioned in the second case, should also be in the scope especially since in the statement 1999:6 the Copyright Council specifically verified that maps may get *sui generis* protection. Regarding the Performance Data Analytics case, it is unclear whether there is such a database that would be protected, because investments made primarily for the build-up and storage of data may not invoke *sui generis* protection.

Catalogue right

As discussed above, the EU law based *sui generis* protection applies when there are substantial investments made for obtaining, verification or presentation of a database. In the absence of such investments, however, the *sui generis* protection does not apply even if the number of data that is collected is large. In such a situation, the so-called catalogue protection may provide additional safeguard even though in general the purpose of the catalogue protection is the same as in the *sui generis* protection. Both are aimed at protecting the economic interests of the manufacturer of a product that does not meet the originality requirement of copyright but takes substantial amount of labour, time and money to put together.

According to paragraph 1 section 49.1 of the Copyright Act, protection will be provided to a person who has made a catalogue, a table, a program or any other product in which many information items are compiled. The scope and duration (15 years) of the catalogue protection is generally like in the *sui generis* regime. However, according to section 1.2. of the Government Bill 1997/70, the only requirement for the catalogue protection to apply is that there is a large amount of information or material arranged as a catalogue, table or program, for example, a phonebook, a statistic or a timetable. According to section 1.3.1 of the Government Bill 161/1990, most datafiles maintained by public authorities

⁷ See paras 20 and 32 of the Fixtures Marketing decision.

and companies should qualify as catalogues in the sense of section 49 of the Copyright Act. Accordingly, the catalogue protection is likely to apply to any large set of data that is processed to the extent that it can be considered as a catalogue, table or program and not just a bulk of information. The information and material within the catalogue do not have to be individually accessible. Also, it does not matter whether the catalogue has required substantial investments. In some cases, this may make it easier to get catalogue protection compared to the *sui generis* protection.

As to the reference case studies, generally the conclusion made above regarding the *sui generis* protection also apply here. However, even if there would not be enough investments made for the obtaining, presentation or verification of the database to get *sui generis* protection, for example, because the database is entirely computer-generated, the catalogue protection may still apply.

Patent protection

According to section 1.2 of the Patents Act (650/2000) and article 52 of the European Patent Convention (1973), computer programs or mathematical methods, as such, are not patentable. Therefore, the primary form of protection for computer software is copyright. However, the Boards of Appeal of the European Patent Office has interpreted the European Patent Convention not to exclude software patents altogether. Patent protection may be provided if the piece of software, such as a computer program, user interface, search index, or algorithm, has a technical effect which goes beyond the normal interaction between the software and the computer (hardware).⁸ In Finnish national patent law, the scope of patentable software corresponds with the interpretations of the European Patent Office. In practice, therefore, the patenting of software may be a useful form of protection also in the context of big data and with respect to the reference case studies.

Trade secrets

Although there are various instruments in the Copyright Act that may protect the producer of an intangible, everything that is valuable is not protected because, as discussed above, information as such is not in the scope of copyright law. In the context of big data such unprotected information may contain, for example, unprocessed data as well as ideas and mathematical concepts including algorithms. It may also be that the 15-year or even 70-year protection provided by copyright legislation is not enough for the producer of the intangible. Accordingly, further protection is required to safeguard valuable information and material. That protection is provided by legislation that concerns so-called trade secrets. This protection of undisclosed business information enables the investments required for generating secret information to turn into a competitive advantage.

In Finland, there is legal regulation on trade secrets both in criminal law and in civil law. Since 2018 the main statute on the protection of trade secrets has been the Trade Secrets Act (595/2018), which implements the Directive (EU) 2016/943 on the protection

⁸ See, for example, decisions T935/97 and T1173/97, Computer programs/IBM, of the Board of Appeal of the European Patent Office.

of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure. Supplementary regulation is provided in chapter 30 of the Criminal Code of Finland (39/1889) concerning business offences and in chapter 3 of the Employment Contracts Act (55/2001) concerning employees' obligations. There are also individual provisions in other statutes.

Trade secrets, in general terms, are information which the company is by concrete actions trying to keep secret and which, if revealed to a third party, would have a negative commercial impact on the company. Accordingly, practically any piece of information that a company possesses and by concrete measures tries to keep to itself can be considered as a trade secret if the monetary value of that information for the company decreases when revealed to a third party. In big data context, one may question to what extent an individual item of information concerning, for example, weather conditions, gains monetary value from secrecy and, thus, is in the scope of trade secret protection. In many cases, it may be argued, individual data is valuable only as a part of a larger quantity and the commercial value of the data is based just on the prospect of finding useful information through data analytics. Continuing with this thought, the conclusion could be that regarding big data, trade secret protection may become applicable at the point when there is sufficient amount of data for it to have commercial value and, therefore, what is protected would be the whole quantity of data or substantial parts of it.

The legal protection of trade secrets generally covers the unlawful acquisition, expression and use of the trade secret. There are also legal ways to figure out a trade secret, for example, by independent research and development based on publicly available information, for example reverse engineering. If a company wants to prevent others from using publicly available information, the company must seek protection under copyright law. In situations where copyright can be granted without making public the protected information, for example the source code of a computer program, the two protection mechanisms can be applied simultaneously.

From the perspective of our reference case studies, the most obvious application of trade secret protection would be the protection of the valuable data analytics tools. As to the datasets in the reference cases, the trade secret protection can be applied if the data has monetary value and the company holding the data is trying to keep the data secret, for example, by technically restricting third-party access to the data and also perhaps by employing a confidentiality agreement after the transfer of the data. It is, however, somewhat unclear to what extent information that is collected, for example, from connected devices has monetary value as such and whether, therefore, individual items of data are eligible for trade secret protection. At the same time, it seems reasonable that if a company has invested in gaining a valuable set of data, which it is trying to keep secret, protection against unlawful use should be provided. If the data has been made public, like the maps in the Data Feeds case, the trade secret protection does not apply.

Contract law

Protection of data is routinely strengthened beyond the above-described statutory protection by concluding with clients, subcontractors, potential investors, consultants and other business affiliates contracts that prohibit them to reveal confidential business information. These agreements bind the contracting parties but do not convey actual property rights. Non-disclosure agreements may provide a way to maintain the secrecy

element required for trade secret protection even after the data has been transferred to a third party.

Regulatory restrictions

The legal protection of personal information is a tradition that dates before the digital time. The emergence of the digital economy, however, has brought with it significant updates to that tradition. Yet, the basic idea to provide protection to the weaker party of a transaction, a consumer or a data subject, has not changed. The most important statute applicable in Finland regarding the protection of personal data is the Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation, GDPR). The Data Protection Act (1050/2018) specifies and supplements the GDPR and its national application in Finland.

The GDPR builds on the idea that privacy is a fundamental human right that cannot be sold. Following this thought, the GDPR assigns certain absolute rights for natural persons which narrow the rights of the controller of the personal data. The inalienable and non-tradable rights of the data subject include the right of the natural person to access her/his personal data, the right to get inaccurate personal data corrected, the right to be forgotten and the right to receive and transfer the personal data. There is also a prohibition for the data controller to process personal data without a legal basis (informed consent) and to use personal data for other purposes except for which it was originally collected. Because of the underlying privacy interest, the GDPR does not issue the data subjects any commercial rights over the personal data. Accordingly, unless otherwise agreed, the natural person has no rights over the income generated from the use of the personal data by the data collector.

Part One: Basic principles: Character, source and nexus

There are no specific laws in Finland concerning the income taxation of data transactions. Accordingly, there are, for example, no special nexus rules that would apply. Altogether Finland has been sceptical regarding new concepts proposed by the European Commission that are targeted specifically at the data economy, i.e. the Significant Digital Presence and the Digital Services Tax.⁹ However, with respect to an OECD level reform the position is more open.¹⁰ The most important income tax statutes in Finland are the Income Tax Act (1535/1992), the Business Income Tax Act (360/1968) and the Act on the Taxation of Income of a Person Subject to Limited Tax Liability (627/1978).

⁹ See the joint statement of the Nordic Ministers of Finance: Global cooperation is key to address tax challenges from digitalization, 1 June 2018, available at vm.fi/en/-/globaali-yhteistyö-on-ratkaisu-digitalouden-verotushaasteisiin.

¹⁰ See Government Program of Prime Minister Sanna Marin 10 December 2019, Chapter 2.1, available at <https://julkaisut.valtioneuvosto.fi/handle/10024/161935>.

When a Finnish resident¹¹ company receives income from a data transaction from Finland or elsewhere, in Finnish domestic tax law it does not matter much what the precise character of that income is. In any case it is income that is taxable in Finland under section 4 of the Business Income Tax Act and paragraph 1 of section 9.1 of the Income Tax Act. The income classification issue is, of course, relevant from a tax treaty perspective, which will be discussed in chapter 4. The possible tax paid in the source state for the same income is usually creditable in Finland even if there is no tax treaty in accordance with the Act on the Elimination of International Double Taxation (1552/1995).

When a non-resident company receives income from a data transaction, the classification of that income does matter also in domestic law because it depends on the income type what kind of connection to Finland is required for the income to be taxable in Finland. The first relevant rule in this respect is paragraph 2 of section 9.1 of the Income Tax Act, according to which a non-resident company is taxable in Finland for “income received from here”. The criteria on when “income is received from here” are set in section 10 of the Income Tax Act. The relevant provisions of section 10 in the context of big data are paragraph 2 (business income), paragraph 8 (royalty) and paragraph 10 (capital gain).

The importance of the classification of the data payment, in general terms, is in that if the payment qualifies as royalty it may be taxed in Finland without the non-resident having physical business presence here. Instead, if the payment qualifies as business income or capital gain it cannot be taxed in Finland unless it is connected to a physical business presence in Finland. Accordingly, already the domestic tax law qualification of a data transaction has essential impact on the taxing powers of Finland over that transaction. If a non-resident company, having no physical business presence in Finland, receives royalty from Finland, the tax payable here under Finnish domestic law is usually a 20 percent withholding tax under paragraph 2 of section 7.1 of the Act on the Taxation of Income of a Person Subject to Limited Tax Liability. However, a tax exemption is provided in sections 3a–g for intragroup royalties within the European Union in accordance with the Interest/Royalty Directive.¹² If a payment received by a non-resident company is connected to a physical business presence in Finland, the tax payable in Finland will be determined based on the net income of the Finnish sited operations regardless of the precise character of the payment (section 13a of the Act on the Taxation of Income of a Person Subject to Limited Tax Liability and section 83 of the Tax Assessment Act 1558/1995).¹³

According to paragraph 10 of section 10 of the Income Tax Act, capital gain on the sale of immovable property situated in Finland is regarded as income received from Finland.

¹¹ A company can be tax resident in Finland if it is incorporated in accordance with Finnish legislation and registered in the Finnish company register or if it is incorporated and registered abroad but effectively managed in Finland.

¹² Council Directive 2003/49/EC on a common system of taxation applicable to interest and royalty payments made between associated companies of different member states.

¹³ The mutual relationship between paras. 2, 8 and 10 of section 10 of the Income Tax Act, which results in the afore-described general principles, can be inferred, together with the other rules mentioned in the present chapter, from s. 13.5 of the Act on the Taxation of Income of a Person Subject to Limited Tax Liability. According to the provision, if a non-resident company, having a physical business presence in Finland, usually a permanent establishment, receives in connection with the business presence a payment that qualifies both as royalty and as business income, the payment will be taxable as business income. The provision is essentially like art. 12(3) of the OECD Model. On the other hand, if a non-resident company, having no physical business presence in Finland, receives a payment that qualifies as royalty, the payment will be taxable in Finland as royalty even though in principle it could also be characterised as business income.

Because section 10 of the Income Tax Act is generally understood as an exhaustive list of Finnish sourced income regarding the types of income mentioned in the provision, in this case capital gains, the *a contrario* conclusion from paragraph 10 is that capital gain received by a non-resident from the alienation of movable property, such as a copyright, is not taxable in Finland unless it is linked to a physical business presence here. In addition, it should be noted that even though there is no particular provision in section 10 of the Income Tax Act concerning payments for the use of tangible movable property, including industrial, commercial or scientific equipment, such payments (rent, lease) are not taxable in Finland without a link to a physical business presence here.

As to what constitutes enough physical presence for capital gain or income from the use of movable property or any other business income to be taxable in Finland, the rule in paragraph 2 of section 10 of the Income Tax Act is simply that income from business carried out in Finland is considered as income received from Finland. This rule is complemented by section 9.3 of the Income Tax Act, according to which a non-resident company, having a permanent establishment in Finland, is taxable here for all income related to that permanent establishment. The definition of permanent establishment, which is essentially like the definition of permanent establishment in the OECD Model, is set in section 13a of the Income Tax Act. The requirement of paragraph 2 of section 10 of the Income Tax Act that business must be carried out in Finland, however, does not mean that there must be a permanent establishment in the sense of section 13a. It is enough that some physical business activity takes place here. For example, there may be a short-term business project in Finland that does not constitute a permanent establishment in the meaning of section 13a but is considered as business carried out in Finland in the meaning of section 10. Yet, some concrete presence is always required. Business is not carried out in Finland in the sense of paragraph 2 of section 10 of the Income Tax Act just because, for example, the customer or user is a Finnish resident or located in Finland or because there is a sensor attached to a machine or device in Finland that collects and transmits data.

Regarding data transactions that under domestic law may be taxable in Finland even without physical business presence, it is notable that in addition to royalties and license fees, also “other comparable payments” are in the scope of paragraph 8 of section 10 of the Income Tax Act. While the mentioning of license fee adds little to the concept of royalty, the inclusion of comparable payments clearly demonstrates that the scope of paragraph 8 is intended to be wide-ranging although the precise contents of the term is not explained in the Income Tax Act or its preparatory works.¹⁴ Also, the connection to Finland that is required for royalty or comparable payment to be taxable here is wide-ranging. Not only are payments made by a Finnish resident company in scope, but paragraph 8 of section 10 also covers payments made by a non-resident company in connection with a physical business presence in Finland. This broad definition of Finnish sourced royalties may sometimes result in withholding taxation of the same income in two states. Such situation may occur when a Finnish resident company has a permanent establishment in another state and that permanent establishment makes a royalty payment to a non-resident. Similarly, double source taxation may arise when a non-resident company has a permanent establishment in Finland and that permanent establishment makes a royalty payment to a non-resident.

There is no definition of royalty in the Income Tax Act. However, there is a definition of royalty in section 3.3 of the Act on the Taxation of Income of a Person Subject to Limited

¹⁴ See Government Bill 40/1974, p. 4.

Tax Liability, which is relevant also in the interpretation of paragraph 8 of section 10 of the Income Tax Act. According to the definition, the term royalty includes consideration for the use of or the right to use a copyright of literary, artistic or scientific work or a right on a photograph. The term also covers consideration for the use of or the right to use a patent, trademark, model, matrix, design, plan, a secret formula or process as well as information concerning industrial, commercial or scientific experience. The latter part of the definition is often referred to as industrial royalties or know-how royalties. The definition of royalty does not cover payments for the use of industrial, commercial or scientific equipment.

So, to begin with, when there is payment for the use or the right to use a copyright, that payment is classified as royalty in Finnish domestic tax law. For the payment to be considered as compensation for the use or the right to use a copyright, it must be, in private law terms, remuneration for partial alienation of the copyright. Partial alienation of copyright means giving the other party a permit (license) to reproduce copies of the copyrighted work, for example a software, or to make the copyrighted content available to the public either in the original form or in an altered form (section 2 of the Copyright Act). If the copyright is outright alienated, the payment received is not royalty but business income or capital gain. A payment for distribution rights is also outside the definition of royalty.¹⁵

The remuneration received for the right to use the copyrighted work, without the right to reproduce copies or make the work available to the public, is also not royalty but business income. As illustrated in the decision KHO 2011:101 of the Supreme Administrative Court, this may be the case even if the paying company is given some limited permits also regarding the copyright, for example, to create for internal use copies of the copyrighted work, such as a computer program, to ensure its full operability. However, as soon as the license that is granted goes to the core area of copyright, the remuneration is considered as royalty. This was the situation in the decision KVL 2012/16 of the Central Tax Board where the paying company was permitted to make new copies of a computer program as well as to modify and develop the program and to sell to its clients the copies it had made. It is worth pointing out that cases 2011:101 and KVL 2012/16 were about the interpretation of tax treaties and the statements of the OECD Commentaries led the argumentation in the decisions. However, although the OECD Commentaries in principle have little to do with the interpretation of domestic law, the conclusions made in the decisions may also be used as a guidance for the interpretation of Finnish domestic law. This is because, as mentioned above, the definition of royalty in Finnish domestic tax law is virtually like the definition of royalty in article 12(2) of the OECD Model. Also, there really is not much domestic guidance regarding the concept of royalty so the OECD Commentaries represent the best material available.

Another question is whether a payment for the right to use a copyright-like property right, such as the *sui generis* right or the catalogue right, also qualifies as royalty. In section 3.3 the Act on the Taxation of Income of a Person Subject to Limited Tax Liability, consideration for the use of the right over a photograph, which is a copyright-like property right regulated in chapter 5 of the Copyright Act just like the *sui generis* right and the catalogue right, is specifically mentioned to be within the definition of royalty. At the same time, payments for the use of the *sui generis* right or the catalogue right are not mentioned, which could be read to suggest that they would not qualify as royalty. However, considering that there is no real difference in the nature of the *sui generis* right and the catalogue right compared to

¹⁵ See para. 10.1 of the Commentary on art. 12(2) of the OECD Model.

a copyright, or the right over a photograph for that matter, the correct reading of the royalty definition is to include all copyright-like property rights as well. In any case, consideration for the use of such rights would undoubtedly qualify as a payment comparable to royalty and, therefore, covered by paragraph 8 of section 10 of the Income Tax Act. Accordingly, for example, if a Finnish company makes a payment to a non-resident company for the right to reproduce or make available to the public a *sui generis* protected database, or substantial parts of the database, either as such or in modified form, that payment would be in the scope of paragraph 8 of section 10 of the Income Tax Act and, therefore, taxable in Finland even without physical business presence here. However, just like with copyright, if the payment is only for the use of the database in the own business operations of the customer, the payment is not royalty but business income.

Different from products that are protected by copyright or a copyright-like property right, a payment for the right to use information or material that is not subject to any such right may constitute royalties even if it is simply for the acquirer's own use. This is because, just like in article 12(2) of the OECD Model, the definition of royalty in section 3.3 of the Act on the Taxation of Income of a Person Subject to Limited Tax Liability also covers remuneration for the use of technical and commercial information or know-how. In the context of big data this means that also a payment for the right to use an undisclosed algorithm or a programming technique, for example, may be classified as royalty. However, for such payment to qualify as royalty the information must be provided with the condition that the customer will not disclose it without authorisation.¹⁶

Regarding the distinction between payments for services and consultancy, which qualify as business income, and payments for the use of technical and commercial information or know-how, which qualify as royalty, the main point is whether the payment is for the use of already existing information or material and, therefore, royalty, or for a more tailored service and, therefore, business income. The provider of services also has certain responsibility over the results of the services, whereas the provider of technical and commercial information or know-how does not guarantee the results for the use of the provided material or information by the recipient.¹⁷ For example, if a company pays another company a fee for processing raw data into a business report with the secret data analytics tools of the latter company, the payment is business income. Instead, if the compensation is for a license to use the secret data analytics tools so that the customer can make the report itself, the payment is royalty. Regarding mixed contracts, which consist of different parts that may call for different characterization for tax purposes, the Central Tax Board in the case KVL 2012/16 decided that because technical support services were only an ancillary and minor part of a license agreement over a computer program, all payments made on the grounds of the agreement were classified as royalty. The decision was based on the OECD Commentaries, which say that in case of a mixed contract, the whole payment should be classified in accordance with the classification of the principal part of the agreement if the other parts are ancillary and largely unimportant. In other situations, the payment should be broken down into parts and each part should be classified accordingly.¹⁸

Finally, as mentioned above, drawing the line between capital gain and royalty is about whether a copyright or a copyright-like property right is alienated altogether or only

¹⁶ See para. 11.5 of the Commentary on art. 10(2) of the OECD Model.

¹⁷ See paras. 10.2 et seq. of the Commentary on art. 10(2) of the OECD Model.

¹⁸ See paras. 11.6 and 17 et seq. of the Commentary on art. 10(2) of the OECD Model.

partially. In the case of total alienation of the property right, meaning that the alienator does not retain any rights to itself, the payment received is capital gain. If the property right is alienated only partially so that the selling party after the transaction still maintains some aspect of the property right, the compensation received is royalty.¹⁹ If the intangible that is outright alienated is not in the scope of copyright or any copyright-like property right, for example a set of unprocessed data or an algorithm, the classification of the income would either be business income or capital gain. Such transaction has features of a capital gain especially if the alienated intangible has been acquired from a third party. But if the intangible that is sold has been created in the own business operations of the selling company, it most resembles what may be called normal business income. In practice, however, the classification as capital gain or business profit is irrelevant in determining the tax liability of a non-resident because in both cases there must be physical business presence in Finland for the income to be taxable here.

Regarding the reference case studies, if the recipient is a Finnish resident company, any income described in the cases would be fully taxable in Finland regardless of its precise character and state of origin. The possible tax paid in the source state for the same income is usually creditable in Finland even if there is no tax treaty. With respect to a non-resident recipient, it seems that in none of the reference cases there is such physical business presence that would constitute tax liability for business income or capital gains in Finland, except if there would be a server located in Finland for example in the Data Brokers case. Accordingly, any of the payments would be taxable in Finland only if classified as royalty. To the extent that there is a product that is subject to copyright or copyright-like protection, the payment simply for the use of the protected product is not royalty but business income like the payments received by Animal Data Co in the second reference case, the payments received by Consultant Co (second commercialization model) in the fourth and maybe also the payments received by Broker Co in the first depending on the nature of Broker Co's structured database as property under applicable law. If the consideration, instead, is for the use or the right to use the relevant property right (copyright, *sui generis* right or catalogue right), it would qualify as royalty. It is, however, unclear whether there is such setting in any of the reference cases. If the payment is for the use of secret technical information and know-how, it may constitute royalty if there is a non-disclosure agreement between the seller and the buyer. This may be the case regarding payments received by Broker Co if the structured database is not subject to copyright or any copyright-like property right and if the agreements with the customers are not considered as service agreements. In the absence of a confidentiality agreement, the payments would be business income. If the payment is for services, like in the Performance Data Analytics case and the Analytics Based Consultancies case (first commercialization model), it constitutes business income. If the payment is just for the right to access unprocessed data like the payment received by Website Co in the first reference case, the payment would be business income.

¹⁹ See paras. 15 et seq. of the Commentary on art. 10(2) of the OECD Model.

Part Two: Application of treaty principles

Finland has an income tax treaty with close to 80 countries including all major trading partners except for Portugal.²⁰ The Finland–Portugal tax treaty was terminated as of beginning of 2019. Portugal has yet to ratify the new treaty.

The provisions in Finland's tax treaties concerning the taxing rights over business income and capital gains from movable property are essentially like the provisions in the OECD Model. Accordingly, in a tax treaty situation business income and capital gain from movable property is taxable only in the residence state of the recipient unless the income is connected to a permanent establishment in the paying state. The provisions in Finland's tax treaties concerning the taxing rights over royalties are not uniform. Some treaties follow the OECD Model in that exclusive taxing rights are given to the residence state. Most treaties, however, assign taxing rights also to the source country. Those taxing rights are usually limited to 5, 10 or 15 percent of the gross amount of the royalty but there may be different rates in individual treaties.²¹ In many treaties the applicable withholding tax rate varies between different types of royalties.²² In the Finland–Malaysia treaty (1986) the applicable rate is different for Finland (5 percent) and Malaysia (15 percent). All Finland's tax treaties contain a provision similar to article 12(2) of the OECD Model saying that if the royalty is connected to a permanent establishment, the royalty is taxed as part of the business income of that permanent establishment.

The definition of royalty in Finland's tax treaties is generally like in article 12(2) of the OECD Model.²³ Accordingly, the statements of the OECD Commentaries are usually the most important source of interpretation together with the treaty text. The typical definition of royalty used in Finland's tax treaties is also very much in conformity with the Finnish domestic tax law definition of royalty. Accordingly, what is said above in Part One about the concept of royalty in Finnish domestic tax law applies to large extent also to Finland's tax treaties. There are, however, some specific features in the royalty definition of Finland's tax treaties compared to the OECD Model and Finnish domestic law that are relevant in the context of big data.

First of the peculiarities is that in many treaties that date between 1995 and 2013, usually signed with non-OECD countries, computer software is specifically mentioned in the royalty article.²⁴ What makes things difficult in this respect is that the wording between different tax treaties vary in a way that may result in different outcomes. In some of Finland's tax treaties, the mentioning of software in the royalty article is only a clarification that computer

²⁰ The Finnish Tax Administration maintains an up-to-date list of Finland's tax treaties at www.vero.fi/en/detailed-guidance/49062/tax_treatie/.

²¹ For example, the Finland–Brazil treaty (1997) provides a 25 percent WHT rate while the Finland–Slovakia treaty (2000) provides a 1 percent WHT rate for certain royalties.

²² For example, in the Finland–Argentina treaty (1996) the applicable WHT rate is 5, 10 or 15 percent depending on the type of royalty.

²³ The royalty definition in the OECD Model has been largely unchanged since the first Draft Convention of 1963. The only material change was in the 1992 update when payments for the right to use, industrial, commercial or scientific equipment were removed from the definition.

²⁴ Such provisions are included in the following tax treaties: Argentina 1996, Armenia 2007, Azerbaijan 2006, Czech Republic 1995, Israel 1998, Kazakhstan 2010, Kyrgyzstan 2004, Kyrgyz Republic 2004, Moldova 2008, Morocco 2013, Pakistan 1996, Romania 2000, Singapore 2002, Slovakia 2002, Ukraine 1995, Uruguay 2013, Uzbekistan 1999 and Vietnam 2002.

software may be an original work subject to copyright.²⁵ Similar clarification is in section 1.2 of the Finnish Copyright Act. At the same time, in other treaties the mentioning of software is an extension of the royalty concept to also cover payments for the use of software.²⁶

Another difference between the concept of royalty in Finnish domestic tax law and in Finland's tax treaties is that in many treaties the definition of royalty also contains payments for the use of, or the right to use, industrial, commercial or scientific equipment. This extension, however, does not cover payments received for data warehousing services which is a particularly relevant point in the big data context. Fees for technical services are included in the royalty definition of the treaties with Argentina, India and Morocco.²⁷ In tax treaties with Malaysia (1986), Pakistan (1996) and Australia (2007) there are special provisions saying that the supply of assistance that is ancillary to the primary product, also qualifies as royalty.²⁸ The royalty definition of tax treaties with the United States (1991) and Mexico (1998) also covers gains from the alienation of intangibles.

The above-discussed extensions of the royalty concept in Finland's tax treaties are not relevant when a non-resident company receives a payment from Finland. The reason for this is that such payments are not taxable in Finland anyway unless connected to a physical business presence here (see Part One), in which case they would be classified as business income. However, when a Finnish resident company receives a payment from abroad, the extension in the royalty definition may become relevant if the payment is taxable under the domestic rules of the paying state even without a connection to a physical business presence there.

Part Three: Transfer pricing

In Finnish domestic law, the arm's length principle is written in section 31 of the Tax Assessment Act. Generally, it corresponds to the arm's length principle of article 9 of the OECD Model but in some cases the scope is more limited. For example, in the case KHO 2014:119 the Supreme Administrative Court decided that re-characterization (nowadays non-recognition) of a transaction cannot be carried out on the basis of section 31 of the Tax Assessment Act even though such possibility is described in the OECD Transfer Pricing Guidelines.²⁹ According to section 31.3, the arm's length principle also applies to transactions between a Finnish resident company and its permanent establishment abroad.

Most of Finland's tax treaties contain a provision like article 9 of the OECD Model, including article 9(2) on corresponding adjustments even though Finland has made a

²⁵ See, for example, the Finland–Argentina treaty.

²⁶ See for example, the Finland–Slovakia treaty and the Finland–Vietnam treaty together with the decision KHO 2011:101 of the Supreme Administrative Court.

²⁷ On the interpretation of payments for the use of, or the right to use, industrial, commercial or scientific equipment and fees for technical services, see, for example, Report by the Technical Advisory Group on Treaty Characterisation of Electronic Commerce Payments: Tax treaty characterisation issues arising from e-commerce, 1 February 2001.

²⁸ See, for example, art. 12(3)(c) of Finland–Australia tax treaty (2007).

²⁹ This approach was reiterated in a recent decision KHO 2020:35. However, there remains the possibility that the legal form of a transaction is disregarded under the general anti-abuse rule of s. 28 of the Tax Assessment Act.

reservation on that provision,³⁰ as well as article 7(3) concerning transactions between the head office and a permanent establishment. Most treaties also contain a provision similar to article 12(4), according to which the part of a royalty payment between associated companies which goes over arm's length compensation is not royalty for tax treaty purposes. Instead, the excess part is taxed in accordance with the laws of each contracting state and considering the other provisions of the applicable tax treaty. For example, if the extra amount is paid from a foreign subsidiary to a Finnish parent company, the extra amount is taxable in Finland as disguised dividend to which the dividend article of the tax treaty applies.

In the transfer pricing rules of Finnish domestic law and tax treaties, there is no definition of an intangible or a data transaction or any other special provision that would apply in the context of big data. There is also no published case law in Finland concerning the transfer pricing of data transactions or any other relevant intangible. The guidelines provided by the Finnish Tax Administration on the transfer pricing of intangibles are on a somewhat general level and mostly repeat what is said in the OECD guidelines, including the importance of the so-called DEMPE functions and that the comparable uncontrolled price method (CUP) is the primary transfer pricing method applicable to licencing and selling of intangibles.³¹ Accordingly, the OECD guidelines are in practise the most important and, in most cases, the only available source of interpretation of the arm's length principle with respect to tax treaties as well as domestic law. These guidelines include the Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, Report on the Attribution of Profits to Permanent Establishments and the relevant BEPS Reports. The importance of the OECD guidelines has also been explicitly confirmed by the legislator,³² by the Supreme Administrative Court,³³ and by the Finnish Tax Administration.³⁴ If a company wants to make sure in advance that the transfer pricing is correct, it may apply for a preliminary ruling³⁵ or for an Advance Pricing Agreement (APA).³⁶

Part Four: Special regimes

There are no special regimes that might apply to the development and sale of big data enabled goods or services. For example, Finland has not enacted a digital services tax and

³⁰ A corresponding adjustment may be provided in Finland even in the absence of a tax treaty provision based on the so-called Arbitration Convention between the member states of the European Union and s. 75 of the Tax Assessment Act which also applies to countries outside the European Union. Finland has also committed to include a provision on corresponding adjustment to all its tax treaties in the scope of the Multilateral Instrument in accordance with BEPS Action 14.

³¹ See www.vero.fi/en/businesses-and-corporations/about-corporate-taxes/transfer_pricing/intangibles/.

³² Government Bill 107/2006.

³³ See, for example, decisions KHO 2002:26, KHO 2013:36, KHO 2014:119 and KHO 2016:72.

³⁴ See, for example, www.vero.fi/syventavat-vero-ohjeet/kannanotot/48760/oecd_n_siiirtohinnoitteluvuohjeiden_paivitys/ and www.vero.fi/en/detailed-guidance/guidance/59583/general-guidelines-for-the-attribution-of-income-to-permanent-establishment2/.

³⁵ See, www.vero.fi/en/businesses-and-corporations/about-corporate-taxes/transfer_pricing/guidance-and-procedures/preliminary-ruling-in-transfer-pricing-matters/.

³⁶ See, www.vero.fi/en/businesses-and-corporations/about-corporate-taxes/transfer_pricing/guidance-and-procedures/advance-pricing-agreement/.

is not planning to do so at least on a unilateral basis. If such legislation would be passed on the level of the European Union, Finland would of course be bound to implement it. There is an additional deduction regime for research and development expenses that arise from joint research projects with universities and other research organisations. The regime is in force between 2021–2024. However, the regime is not limited to data related research.³⁷

Presently research and development costs are deductible as current expenses unless the taxpayer wishes to capitalize them, in which case the taxpayer may also choose the applicable amortization period (section 25 of the Business Income Tax Act). Data acquisition costs, unless considered as research and development costs, are deductible either as current expenses or capital expenditures depending on whether they are expected to generate income for more than three years. Accordingly, if the value of the acquired data declines rapidly, the acquisition costs should be deductible as current expenses. The amortization period, if applicable, is 10 years or shorter depending on the time the investment is estimated to be income generating (section 24 of the Business Income Tax Act).

Part Five: Indirect tax

The VAT treatment of data transactions in Finland is based on the VAT Directive of the European Union³⁸ which is implemented in the Value Added Tax Act (1501/1993). According to section 17 of the Value Added Tax Act, the definition of goods covers tangibles as well as electricity, gas, heat and cooling energy and other similar energy commodity. Anything else that can be sold in connection with business activity is a service. Accordingly, data transaction is a supply of service notwithstanding whether the supplied material and information is subject to any intellectual property right or not. There is no special rule, case law or even active debate in Finland concerning the VAT treatment of data transactions, including the question whether certain data business models may give rise to barter transactions that could invoke VAT liability.

³⁷ Act on additional deductibility of research and development costs between 2021–2025 (1078/2020).

³⁸ Council Directive 2006/112/EC on the common system of value added tax.

Summary and conclusions

In the rapidly changing world, France tried to adapt its tax rules to the digital economy.

France implemented several incentive measures designed to attract and retain high value-added R&D in the digital sphere in France (*i.e.*, so-called “IP box” for the software, specific depreciation rules, R&D tax credit etc.).

In parallel, France tried to capture into its tax net, a portion of profits generated by digital platforms on the basis of users located in France. France has been one of the pioneer countries in introducing a digital services tax in July 2019, applicable to digital intermediation and targeted advertising services which costs it the risk of retaliation measures from the United States in the form of customs duties on certain typical French non digital products. France authorised the access of the tax authorities to the social networks with the objective to track fraudsters.

From the corporate income tax perspective, France continues to apply a strict territoriality regime (*i.e.*, only profits resulting from a business carried on in France are subject to corporate income tax in France) and does not take into account significant digital presence: the French courts apply the traditional permanent establishment definition implying physical presence and human involvement to digital companies. French tax law has no specific rules for the transfer of data. In particular, no tax rule indicates if the transfer of “raw data” or “structured/aggregated data” should be treated as sale of goods, provision of services or license for royalties. This distinction is particularly relevant from an international tax law perspective, where taxation is different for each of these categories. In this respect, the approach taken by other branches of law should be used. As a result, in most cases, the transfer of data should be considered as a provision of services. France withholds tax on payments for provision of services if there is no tax treaty with the recipient’s jurisdiction. If there is a tax treaty, the income will in most cases be taxable in the state where the service provider is established unless the service provider has a traditional permanent establishment in France.

Finally, when the transfer of data is carried out in exchange of a fee, the transaction falls within the scope of VAT as a provision of services. Moreover, specific rules exist for services provided by electronic means. As a result, VAT rules applicable to such services apply to big data transactions. The concept of barter transaction has not been applied to exchanges of personal data for free services.

¹ Tax partner with Hogan Lovells Paris office. She leads the French tax practice of Hogan Lovells and is managing partner of the Paris office. For the purposes of this report Xenia coordinated the group of lawyers from Hogan Lovells from the tax practice (Maryll Pizzetta) and the data practice (Patrice Navarro, Charlotte Le Roux).

Introduction: Legal background

The data “ownership” debate

While everyone easily recognizes the value of data, its ownership is subject to lengthy legal debate in France, especially when data is “personal” within the meaning of data protection regulations.

Data “ownership” rights result from a sum of different rights and obligations such as intellectual property rights, contractual rights, confidentiality, business secrecy, but also technical protection measures to protect the access to data and regulatory requirements. These, all together, give an overall picture of what level of ownership control and rights a stakeholder has over its data.

In many occurrences data will be personal data, i.e. directly or indirectly related to an individual. In such a case, they are considered as personality rights by the French Data Protection Act and the French Civil code. The French Administrative Supreme Court rejects the idea that an individual could be the “owner” of her/his personal data, in the sense that it is part of one’s personality. However, personal data can be subject to a commercial transaction, e.g. a business’s customer list is assimilated to a business asset by French case law².

The general regulations on data protection (the “GDPR”) recognise, to a certain extent, controlling rights, and not ownership rights, to (i) the data subject, who has rights over his/her data such as the right of access, the right to erasure and (ii) the data controller who has the right to use the data for its own purposes as long as it is in compliance with the data subject rights or other legal or contractual provisions.

Copyright, patents and sui generis rights

Various intellectual property principles may apply to intangible data under French law.

Patent law grants to a patent holder an exclusive monopoly upon the exploitation of an invention for 20 years. Patent protection is for a technical solution to a technical problem and it implies disclosure, which can sometimes be seen as a drawback when dealing with valuable intangible data.

Copyright is designed to protect any work from the mind (“*oeuvre de l’esprit*”) as long as this work is original. Copyright requires fixation of the work, excluding mere ideas from the scope of copyright protection. A set of raw data, as a mere piece of information which lacks originality, is therefore in general entirely excluded from copyright protection. The scrutiny must therefore be done on a case-by-case basis for data which present a possible original character. In a data driven economy, applying copyright protection infers identifying the authors of the data to obtain the written authorisation to perform and reproduce the works as there is no certainty that the use made of the data will fall under the copyright exceptions, especially the newly-created text and data mining exception. In any event, moral rights shall also constitute a hindrance for the exploitation of such data which satisfy the originality requirement.

Finally, and contrary to patent and copyright law which each require distinct conditions

² French Supreme Court (“*Cour de cassation*”), 25 June 2013, n°12-17.037.

associated to the nature of the information, database protection focuses on the way of structuring the data.

Database protection in France results from the implementation of the Database Directive adopted in 1996³ into the French legal framework.⁴ Under these provisions, the maker is entitled to the protection of the content of the database when it can evidence that either obtaining, constituting, verifying or presenting the content of the database required a substantial investment. It shall also evidence the existence of the infringing act, i.e. extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the content of that database.

The abovementioned standards of proof are not easy to satisfy, especially the condition of substantial investment when data are generated by computer means. In this regard, the European Court of Justice ruled that a substantial investment for the creation of the data is not sufficient to lead to *sui generis* protection.⁵ Consequently, the *sui generis* database right often does not protect bulk data involved in big data projects.

Further, this *sui generis* right does not preclude the use, reproduction or reutilisation of one piece of data as it does not fall within the notion of qualitatively or quantitatively substantial part; it rather protects the structure of the database.

As a result, the kind of intellectual protection rights opted to protect the data depends upon its nature, the value for its holder and the confidential character of the data.

Trade secret and confidential information

The legal recognition of trade secret in France follows the implementation of a 2016 EU Directive⁶ with the Act of 30 July 2018 relating to the protection of business secrecy.⁷ Such business secrecy offers companies the protection of their strategic knowledge and sensitive data in an environment where data breaches and theft have become commonplace. Information is deemed a trade secret if it is not easily available, has commercial economic value due to secrecy and is subject to protective measures.

Information covered by trade secret may include industrial data (e.g. know-how, patents, research and development of an innovation), economic data (e.g. company margin rate, buy-out plan of a competitor), commercial data (e.g. contracts, customer lists) or personal data (e.g. employees' or customers' data).

Falling within this scope, it shall be evidenced before requesting any damages for misappropriation. The extent to which an information can be considered a trade secret is substantial. For instance, although data taken individually, would not be considered intrinsically secret, combination of data could amount to trade secret as it could enable a company to gain a competitive advantage in a given market.

³ European Directive no. 96/9/EC dated 11 March 1996 on the legal protection of databases.

⁴ Arts. L.341-1 to L.343-7 of the French Intellectual Property Code.

⁵ *Fixtures Marketing Ltd. V. Oy Veikkaus AB et al*, ECJ, 9 November 2004, C-46/02, C-338/02, C-444/02 and *British Horseracing Board Ltd. V. others*, , C-203/02.

⁶ Directive (EU) 2016/943 of 8 June 2018 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure.

⁷ Act No. 2018-670 of 30 July 2018 relating to the protection of business secrecy.

This framework does not create any exclusive proprietary right to information protected as trade secrets. Therefore, independent discovery of such information should remain possible. Additionally, reverse engineering a marketed good, as well as observing, studying or dismantling a good which has been made available to the public, or which is lawfully in the possession of the information holder, constitute lawful methods of obtaining trade secret information.⁸

Contract law

Parties are free to contractually determine the use of data provided under a contract and more generally during a contractual relationship, provided that such use complies with legally mandatory provisions applicable to data. And when it comes to the use of personal data, the contract must be compliant with data protection regulations. A contract does not create a property right per se, but only creates rights and obligations between the parties.

Companies have considerable freedom in imposing conditions on a third party's use of data. In its decision in *Ryanair vs. PR Aviation*,⁹ the European Court of Justice found that the provision in Ryanair's terms of use prohibiting third parties from extracting data from its website for commercial use was valid, and that Ryanair's contractual terms did not have to comply with the conditions set forth in Directive 96/9¹⁰ because the database was not protected by the *sui generis* database right. Similarly, Facebook was recently successful in taking action against third parties automating various activities such as creating accounts, posting of likes and data scraping prohibited by Facebook's Terms of use.

Markets for data, and in particular for raw data, which are not protected by a specific right such as an intellectual property right, seem to function correctly through contract.

Regulatory limits and open data

The use of data is highly regulated when it comes to personal data and in particular in sensitive sectors such as insurance, banking, and healthcare. The GDPR requires that a company's usages of data have a legal basis, and one of the bases may be a contract. Data privacy law is not the only regulatory constraint that can affect the bundle of rights we call ownership. In some cases competition law may force entities to share data.

Specific regulations may also compel data sharing. An example in the payments industry, the European payments services directive requires banks to share data with competitive service providers. In the automobile industry, data sharing with independent garages is obligatory, and the same applies to the mobility sector with the Act on Orientation of Mobilities.¹¹

Government regulation can impose obligations on those who acquire and process data which should be "open data". Open data is data that an organization must make available to all in the form of digital files in order to allow their re-use. For instance, the French Act

⁸ Art. L. 151-3 of Act No. 2018-670 of 30 July 2018 relating to the protection of business secrecy.

⁹ CJEU, *Ryanair Ltd v PR Aviation BV*, Case C-30/14, 15 January 2015.

¹⁰ European Directive no. 96/9/EC dated 11 March 1996 on the legal protection of databases.

¹¹ Act No. 2019-1428 of 24 December 2019 on Orientation of Mobility.

of 7 October 2016 for a digital Republic creates a global and free public service to access “open data”.¹²

Antitrust law enforcement and data protection

Antitrust agencies have primarily focused on the need to address combinations of data in merger control proceedings. The European Commission has historically considered that merging two data collection services would not impede competition since consumers tend to provide their data to multiple market players at the same time but reminded the platforms that data protection rules must be complied with.¹³

Antitrust enforcers wish to impose a fair balance between ensuring the development of competition and the protection of consumers’ privacy. Protecting and keeping data confidential may amount to an exclusionary abuse for companies holding a dominant position. In that respect, the French Competition Authority ordered one the leading French energy companies, to provide its competitors with access to its customers database. Such decision was issued in compliance with the French Data Protection Authority’s opinion and included an opt-out mechanism for customers.¹⁴

In addition to this, dominant companies may also adopt exploitative abuses towards their users depending on the way they collect and process personal data. For instance, antitrust agencies consider that collecting vast amount of personal data through third-party websites could amount to an abuse of a dominant position. Both French and German antitrust agencies have issued a common report on competition law and big data in 2016.¹⁵ This report emphasizes the necessity of a differentiated approach and a case-by-case analysis when identifying the relevant aspects that must be taken into account, which are (i) whether the data under consideration can easily be obtained by rivals and (ii) whether the scale and scope of data matter.

Part One: Basic principles: Character, source and nexus

1.1. General overview

There is no specific tax law provision relating to data transactions. Transfer of data may trigger the following taxes in France: corporate income tax (“CIT”), withholding tax (“WHT”), value added tax (“VAT”) and digital services tax (“DST”). For the purpose of Part 1 of this report, we will focus on the CIT rules. The DST and VAT rules will be analysed respectively in Part 4 and Part 5.

¹² Act No. 2016-1321 dated 7 October 2016 for a digital Republic.

¹³ European Commission, Decision M.8124, *Microsoft / LinkedIn*, 6 December 2016, para. 255

¹⁴ French Competition Authority, Decision 14-MC-02 relating to Direct Energie’s request for interim measures, 9 September 2014, para. 283-297

¹⁵ French Competition Authority and Bundeskartellamt, *Competition law and data*, 2016

1.2. Character

There is no clear distinction between “transfer of raw data”, “transfer of aggregated/structured data”, and “transfer of analyses of aggregated data”.

The characterization of the transfer of data as either provision of services, sale of goods or licensing is key in the international context.

For domestic CIT purposes, the distinction is irrelevant as all types of profits will be subject to regular CIT (the “IP box” provisions described below are not relevant to transfers of data).

In the international context – the profits from provision of services/sale of goods are usually subject to CIT only in the state of the supplier’s residence unless the supplier has a permanent establishment in the source state, whereas the royalties would be subject to withholding tax in the source state. France, however, applies domestic withholding tax on payments for provision of services.

As French tax law does not provide for any specific definitions, French legal definitions should be used. In this respect, the transfer of data could be considered as a sale of intangibles when there is a transfer of ownership of the data. When there is no transfer of ownership but a right to use the intellectual property rights, the remuneration of such right should be considered as a royalty. Finally, if none of the previous characterizations is retained, the transfer of data should be considered as a provision of service.

Example 1: an enterprise is in the business of gathering data from various sources in order to build profiles of consumer behaviour (“*Broker Co*”). *Broker Co* gathers some information through application program interfaces (“*APIs*”) which a website owner (“*Website Co*”) may allow to provide access to information generated through traffic on *Website Co*’s website in exchange of annual payment. *Broker Co* develops data analytics software which organizes and structures the data and sells copies of data sets to customers. Customers may purchase the data sets for purposes of targeted advertising, fraud detection, marketing analysis, insurance risk analysis, or similar purposes (the “*Example 1*”).

Analysis: *Website Co* accepts the cookies which allow to transfer data to *Broker Co*. Thus, *Website Co* authorizes the use of data, but *Broker Co* does not control or own the data. In this respect, the “transfer of data” by *Website Co* to *Broker Co* should be considered as a provision of services and not a sale of goods.

It is, however, unclear whether the transfer of copies of data sets by *Broker Co* to customers could be considered as a sale of goods or a provision of services. Indeed, in general, it is possible to transfer the ownership of anonymised and structured data. But if the service does not meet the specific needs of each customer and *Broker Co* only sells copies to different customers (the original structured data sets themselves are not transferred), France could consider that *Broker Co* does not “sell” the data sets but authorises customers to access the results of the organization and structuration of data made by the analytics software developed by *Broker Co*. In this respect, the “transfer of data” sets would be considered as a provision of services.

However, if *Broker Co* had transferred specific data structured in accordance with needs of a specific customer, the transfer of those structured data could have been considered as a sale of goods, from a legal standpoint, and treated as such for tax purposes.

Example 2: An enterprise is in the business of predicting animal migration (“*Animal Data Co*”). The enterprise gathers data on weather forecasts, food supply, predator density, urban

development, climate change, and other elements. The enterprise has developed data analytics tools which it uses to create maps of predicted animal density at various future points in time. Another enterprise operates a website whose viewers would be interested in animal migration information ("*Information Site Co*"). Information Site Co has contracts with Animal Data Co to provide a continuous feed showing migration patterns and predictions for a monthly fee. For the fee, Information Site Co receives the data feed and is entitled to display the information to all viewers on its website. Information Site Co receives no rights to use Animal Data Co's data analytics software and algorithms, except when it is necessary to allow display of the output on Information Site Co's website. Information Site Co does not charge its users a fee to view the information. Information Site Co is located in a different jurisdiction than Animal Data Co (the "*Example 2*").

Analysis: Animal Data Co does not transfer the ownership of data, but it entitles Information Site Co to display the data structured by data analytics tools developed by Animal Data Co. In this respect, the "transfer of data" by Animal Data Co to Information Site Co should be considered as a provision of service.

Example 3: An enterprise is engaged in the business of designing, selling, and servicing complex equipment ("*Equipment Co*"). An affiliate of Equipment Co resident in a different jurisdiction ("*Service Co*") enters into after-sales service contracts with equipment purchasers. An important part of the service contract is the provision of performance monitoring and failure prediction services to equipment users. Service Co performs those monitoring and prediction services by obtaining real time performance data from the manufacturer's equipment over time, both the equipment purchased by the customer which has entered into the service contract and equipment purchased by other equipment owners. Service Co has developed data analytics tools which are essential for its ability to perform these services. Those tools analyse data received from the equipment (thanks to sensors installed by Equipment Co) while in operation in combination with data derived from other machines over time to provide information to the equipment owner and Service Co employees relating to early warnings of failure, risk prediction, suggested preventive maintenance, and needed repairs. The remote monitoring and failure prediction services are provided through a data centre located outside the jurisdiction of the customer. The data centre equipment hosts the data base that stores the historic data and captures real time performance data and hosts the analytics software that predicts failures and proposes remedies (the "*Example 3*").

Analysis: Service Co provides to equipment users the analysis of the conditions of the purchased equipment resulted in the collection of data and the combination with data derived from other machines over time. An important part of the service agreement consists in the provision of performance monitoring and failure prediction services to users. This is clearly a provision of services for a "technical fee".

Example 4: An enterprise is engaged in the business of providing consulting services to educational institutions to improve student results ("*Consultant Co*"). Consultant Co. has accumulated a database designed to capture and analyse data that predicts educational performance, career choice, and earnings potential. The database includes data spanning many years of student test scores, personal background including socio-economic background, residence addresses, ethnicity, language capabilities, parents' education levels and occupations, and similar factors, and post-graduation employment history. The data objects are located throughout the world. Consultant Co uses that database to support

its consultancy work with educational institutions or third-party researchers. Consultant Co charges fees on a negotiated project basis for its consulting services (the “*Example 4*”).

Analysis: Consultant Co does not transfer the ownership of the data but authorises the institutions or the researchers to consult the database gathering all the data collected by Consultant Co. In this respect, the “transfer of data” should be considered as provision of services.

1.3. Source

The source of income is located in the state in which the debtor is resident.

When no international tax treaty is concluded by France with the recipient’s jurisdiction, article 182B of the French Tax Code (“*FTC*”) provides for a withholding tax applicable, in particular, to proceeds (after application of a 10% allowance if certain conditions are met)¹⁶ from (i) intellectual property and assimilated rights and (ii) the provision of services of any kind provided or used in France if the following three conditions are met:

- the payor carries out an activity in France (even if it is not located in France);
- the payee is not located in France and does not have any permanent establishment in France;
- the payee is subject to income tax.

As a result, the withholding tax provided under article 182B of the FTC may apply to provision of information (industrial, commercial or scientific) and technical studies the results of which are used in France.

Example 1: the withholding tax could apply if the transfer of data is considered as a provision of services. If so, and if Broker Co carries out an activity in France, uses the data provided by Website Co in France, and Website Co is established abroad, the fees paid by Broker Co to Website Co could be subject to French withholding tax. In the same way, if the customers carry out activities in France, use the data provided by Broker Co in France, but Broker Co is established abroad, the fees paid by such customers could be subject to French withholding tax.

1.4. Nexus

French CIT is marked by a strict territoriality regime: profits resulting from a business carried on in France are subject to CIT in France.¹⁷

In accordance with the case law of the French Administrative Supreme Court (“*Conseil d’Etat*”) and the clarifications also provided by the doctrine of the French Tax Authorities (“*FTA*”), the notion of “business carried on in France”, within the meaning of article 209 I of the FTC, means the habitual exercise of an activity that may:¹⁸

¹⁶ Art. 182 B of the FTC as amended by the Finance Act for 2022.

¹⁷ Art. 209, I para. 1 of the FTC.

¹⁸ French Tax authorities doctrine BOI-IS-CHAMP-60-10-10-27/06/2014 n°60, also used by the Administrative court of Versailles, decision dated 18 November 2014 n°11VE02931, “*Société Telecom*” and 24 July 2018 n°13VE02686 “*Orange*”.

- (a) be carried out within the framework of an autonomous establishment: an establishment is any material installation having a certain permanence capable of pursuing certain economic goals and which is the seat of operations normally generating profit. In principle, it is characterised by the existence of a professional body, a production or exchange unit forming a coherent whole, endowed with a certain permanence and possessing its own autonomy, within the legal entity constituted by the undertaking. The importance of management autonomy was underlined by the Administrative Supreme Court on 18 October 2018;¹⁹ or
- (b) be carried out, in the absence of an establishment, through a dependent agent: this concerns all cases in which the agent can be considered as a true employee of the company and where it can be considered that it is indeed the company itself which carries out the activity in question, directly and personally; or
- (c) resulting from the carrying out of operations forming a complete commercial cycle: this covers a series of commercial, craft or industrial operations directed towards a specific goal and which together form a coherent whole.

The above criteria (a) and (b) are quite similar to the OECD concepts of fixed place of business and dependent agent.

Taxation in France is essentially based on the physical presence in France and physical presence involving human beings. This criterion of human presence may be waived only in exceptional situations where it appears possible to demonstrate that the typical functions related to a sale are carried out completely automatic by the computer equipment where it is installed.

In this respect, the minister of economy considered in 2001²⁰ that a server located in France may be regarded as a permanent establishment. But France seems to continue to presume that, in the absence of the presence of operating personnel on site, a server generally has only a preparatory or subsidiary role in the operation of the business and therefore cannot constitute a permanent establishment.

A good illustration of the attempt of the FTA to apply the traditional permanent establishment definition to a digital company is the *Google Ireland* case.²¹

In November 2012, the FTA sent a reassessment proposal to the Irish company Google Ireland Limited (headquartered in Dublin), claiming that this company was engaged in France on a regular basis in the professional activity of selling advertising through a permanent establishment via its French subsidiary Google France SARL. In five decisions dated 25 April 2019,²² the Paris Administrative Court of Appeal ruled in favour of Google Ireland Limited considering that the employees of Google France SARL did not have the power to bind the Google Ireland Limited in the distribution of advertisements to internet users using the “AdWords” service and the French premises and French staff were at the disposal of the Google France SARL only for its own activity. Google Ireland Limited did therefore not have a fixed place of business in France.

¹⁹ French Administrative Supreme court, 18 October 2018, n°405468 (“Société Aravis Business Retreats Limited”).

²⁰ Ministry reply ‘Chazeaux’ AN 30 July 2001 p. 4395 n°56961.

²¹ Paris Administrative Court of Appeal, 25 April 2019 n°17PA03067 “*min c/ Google Ireland Ltd*”.

²² Paris Administrative Tribunal, 12 July 2017 n° 155113/1-1.

Since half a decade, France considers that the international tax rules are no longer adapted to the new economic models in the field of digital activities as the taxation based on physical presence does not allow a correct capture of the value created in various states.²³

France is convinced that the participation of Internet users in the creation of this value constitutes a particular source of profits for certain operators as their economic model is based on the intensive collection and processing of their data. This fact makes it essential to distribute the right to tax more fairly according to the place where these profits are generated.²⁴ FTA considers that systematic and massive collection of data from Internet users could characterise a digital presence that is sufficiently significant to justify a right to tax.²⁵ This approach is the result of a report made by Pierre Collin and Nicolas Colin on the taxation of the digital economy, which proposed, in particular, the introduction of a new concept of “virtual permanent establishment” which would be characterised if a company provides a service on the territory of a state by means of data resulting from regular and systematic monitoring of Internet users on the territory of that state.

On this basis and as all EU-wide plans (common base of taxation, virtual permanent establishment, digital services tax) failed, France created its own DST (see below).

The efforts of the OECD with respect to the evolution of nexus in the digital economy are in progress but work has been delayed because of the Covid-19 pandemic.

The OECD has clarified the definition of a permanent establishment in the context of e-commerce: a distinction must be made between computer equipment, which might be installed on a site so as to constitute a permanent establishment in certain circumstances, and data and software which are used by or stored in such equipment.²⁶ A website that is a combination of software and electronic data does not in itself imply tangible property and cannot create a permanent establishment, whereas a server that hosts websites can be considered a fixed place of business.

Nevertheless, there is no permanent establishment where the activities are merely auxiliary or preparatory, in particular the collection of market data on behalf of the enterprise, or the provision of information. However, if these activities constitute an essential and significant part of the business activity of the enterprise, a permanent establishment may be recognised if the equipment used meets the conditions of the fixed place of business.

Example 3: in application of OECD guidelines generally followed by the FTA, data centres owned by Services Co could be considered as fixed place of business in France. If so, Service Co would be subject to CIT on the portion of profits allocable to this permanent establishment.

²³ France considers that the current tax framework “does not always appear to be adapted to the activities carried out in particular by companies in the digital sector, which increasingly rely on intangible assets and intangible data, and recalling, with regard to the reassessment notified to Google Ireland, that the rule today remains that of the permanent establishment and that this concept is based to a large extent on the physical presence or the ability to bind the foreign company”. Ministerial decision Lienemann n°00677 : JO Sénat 5 April 2018 p. 1611.

²⁴ Press release No 399 of the Minister for the Economy and Finance of 16 March 2018, reply Rouillard No 13220: JOAN of 16 April 2019 p. 3569.

²⁵ Ministerial decision Féron n°89866: JOAN 11 April 2017 p. 2933.

²⁶ Comments on OECD Model tax treaty C(5) n. 122 to 131.

Part Two: Application of treaty principles

The international tax treaties concluded by France do not have provisions specific to data transactions.

In the international context – the profits from provision of services/sale of goods are usually subject to CIT only in the state of the supplier's residence unless the supplier has a permanent establishment in the source state, whereas the royalties would be subject to withholding tax in the source state.

Under French law, both payments for provision of services and royalties fall into the same article 182B of the FTC for the purposes of the withholding tax.

The definition of “royalties” depends on the tax treaty. The OECD defines royalties as the remuneration of any kind paid for the use of, or the right to use, a copyright in a literary, artistic or scientific work, including cinematographic films, a patent, a trademark, a design or model, a plan, a secret formula or process, and information relating to any experience acquired in the industrial, commercial or scientific field. The transfer of know-how could also fall within the scope of royalties.

When the remuneration does not fall within the scope of royalties as defined by the relevant tax treaty, it should be considered as the remuneration of a service.

Example 3: the remuneration of the after-sale services rendered by Service Co to equipment purchasers could be considered as “technical fees”. In this respect, it should be subject to taxation in the state of Service Co's residence, unless the tax treaty provides a specific qualification (*e.g.* royalties). Some tax treaties entered into by France expressly exclude technical fees from the scope of “royalties”. For instance, the Turkey-France tax treaty provides that “remuneration paid for technical services, including analyses or studies of a scientific, geological or technical nature, or for engineering work including plans relating thereto, or for consultancy or monitoring services, shall not be regarded as remuneration paid for information relating to experience acquired in an industrial, commercial or scientific field”. However, when tax treaties follow the UN model, the remunerations of technical services could be qualified as royalties and subject to withholding tax in the source state.²⁷

Part Three: Transfer pricing

There are no specific transfer pricing rules in France relating to the use or transfer of data in cross-border transactions. Similarly, there is no directly related case-law. It can therefore be expected that general transfer pricing rules and principles should apply. In this respect, whilst French domestic law and regulations do not prescriptively adopt the OECD Transfer Pricing Guidelines, administrative doctrine makes reference to them, and they are generally accepted in practice.

The transfer of raw data, especially if collected using tools or a platform developed outside France, may not have great value attached to it. Rather, in line with general transfer pricing principles, value will be attributable primarily to the parties involved in performing development, enhancement, maintenance, protection and exploitation of intangibles

²⁷ Comments on UN Model of tax treaty, c (12) n°4.

("DEMPE") and risk management functions that relate to data as an intangible asset. For a data-driven business these may include the following:

- Development: the design, building and implementation of systems, tools and platforms for the collection, manipulation, analysis and use of data, and activities relating to, facilitating, or directly concerned with the collection of data;
- Enhancement: the synthesis, cleaning and updating of data held by an enterprise (especially, but not exclusively, user and customer data), and the improvement of related systems, tools and platforms;
- Maintenance: monitoring the performance of systems, tools and platforms, and conducting the work required to make fixes and implement patches as required;
- Protection: maintaining the integrity and security of the data held by an enterprise, and safeguarding the intellectual property of the enterprise as it relates to the systems, tools and platforms employed;
- Exploitation: use by the enterprise of data or data analytics for commercial purposes, e.g. in developing commercially valuable insights, improving the design of products and services, and in algorithmic or programmatic advertising.

Particular value is likely to be attributed to development. Emphasis is placed on strategic direction and management, rather than e.g. routine software engineering that is capable of being outsourced or performed in alternative locations. Exploitation-related activities are often also seen as significantly value-adding for data-driven businesses, but remaining DEMPE functions can also be material. In all cases, attention is required to what tools are used in performing important activities, and how and where these tools are owned and developed.

The FTA have arrived at large settlements in transfer pricing related cases with data-driven businesses. This suggests that the FTA see local performance of DEMPE functions in data-driven enterprises as important. Playing a role that is likely to have contributed significantly to winning greater numbers of users or customers, e.g. promotion, sales and marketing, adds to the volume of data an enterprise holds. For data driven businesses, these activities may therefore also be seen as material.

The collection and transfer of raw data, unless especially difficult, or for some reason something that could only have been done by a specific enterprise, may attract relatively little value.

The assumption and performance of risk management functions, including risk control and mitigation, are also significant. These may be seen as falling into the protection category of DEMPE functions. They are particularly important regarding data privacy and secrecy. This is magnified by the applicability of the EU's GDPR rules in France. An entity that acts as Data Controller under GDPR rules (or contributes importantly to it), will play an important risk management function (and possibly other DEMPE functions) for transfer pricing purposes.

Part Four: Special regimes

4.1. DST

On 21 March 2018, the European Commission introduced a plan to create a 3% tax applicable on digital services income. Due to a lack of unanimity in the Council, plans for a European tax on digital services have been suspended by the 27 European Union states. OECD took the leadership on the subject.

Whilst discussions are continuing at OECD level, the French government created a 3% digital services tax, on 25 July 2019,²⁸ applicable on income derived from digital intermediation services and targeted advertising services.

Following threats from the United States to subject French goods to customs duties and in an attempt to allow a position common to the OECD, France agreed for the year 2020 that companies may defer payments due in April and October 2020. Companies making use of this deferral option will pay the advance payments in a single payment in December 2020.

On October 2020, the G20 Finance Ministers noted the failure of political negotiations by the OECD member states. As a result, OECD work should continue until mid-2021 and the French DST will be due in December 2020.

According to the Joint Statement of 21 October 2021, France undertakes (as well as the UK, Spain, Austria and Italy) to abolish the French DST as of the entry into force of Pillar One. During the transitional period (i.e., from 1 January 2022 to 31 December 2023, or, if earlier, the date of entry into force of the multilateral convention on Pillar One) France will maintain its DST and will apply a tax credit chargeable against the tax due in respect of Pillar One Amount A. This tax credit will be applicable from the year of application of Pillar One Amount A and will correspond to the excess tax levied under the tax compared to Pillar One Amount A determined on the basis of the 1st year of its application.

The French DST brought in €277 million in 2019, €375 million in 2020 and should bring in €358 million in 2021. A total of €518 million is forecast for 2022.

The French DST applies if the four following conditions are met:

- the existence of a taxable service;
- the location in France of the taxable service during that calendar year;
- the receipt of income in return for the taxable service during that calendar year;
- the reaching of certain thresholds assessed on the basis of the income received during the year preceding that calendar year and assessed, where applicable, at the level of all the related companies, directly or indirectly, by a controlling relationship.

Taxable services

The DST applies to two categories of services:

- Digital intermediation services, which, by means of a digital interface, allow users to interact with each other.²⁹ They include two sub-categories:
 - marketplaces, where users can technically carry out transactions between themselves (supply of goods or services); and

²⁸ Act n° 2019-759, 24 July 2019.

²⁹ Art. 299, II-1° of the FTC.

- matchmaking services, where users cannot technically carry out transactions between themselves.
- Targeted advertising services, which allow an advertiser to place on a digital interface targeted advertising messages based on data collected from users.³⁰ They include two sub-categories:
 - placement services; and
 - data transfer services, which are limited to the transfer of user data for the purpose of placing advertising messages.

The targeted advertising services³¹ will be subject to DST if the three following cumulative conditions are met:

- these services must be marketed to advertisers or their agents;
- the ads must be placed on a digital interface;
- the ads must be targeted according to data which (i) relate to the user who consults the digital interface on which the advertising message is placed and (ii) have been collected or generated during the consultation of digital interfaces.

The FTA guidelines complete the definition of “targeted advertising services” by giving an indicative typology of taxable advertising services, for instance: services located downstream in the value chain of the programmatic advertising sector that offer technological solutions for accessing data collected from users of digital interfaces in order to target the purchase of advertising space (data management platform), or, under certain conditions, sites comparing commercial offers, ad sites, or any other service that is remunerated to persons for the placement of internet links to sites operated by these persons, provided that these links are presented to the user of the digital interface according to information that this user has provided.

Digital services are not taxable services when they are provided between companies linked to each other by a controlling relationship and therefore belong to the same “DST group” (the “Exclusion Condition”).

Since the same service cannot be artificially divided, the Exclusion Condition is assessed globally, without it being possible to apply it only to a fraction of the clientele. This means that when a taxable service is supplied to different companies, it does not benefit from the exclusion, even if some of these companies are related to the supplier.

Territorial scope

A taxable service is considered as supplied in France (and then subject to French DST) during a tax year if, during that same year, at least one user of the digital interface is located in France, according to rules specific to each of the four sub-categories of taxable digital services (see hereunder). The fact that this condition is met only during certain periods of the year is irrelevant.

³⁰ Art. 299, II-2° of the FTC.

³¹ Art. 299, II-2° of the FTC.

A user is deemed to be located in France when he or she accesses the digital interface from a terminal that is itself located in France (determined by any means including IP address and geolocation). Tax residence or citizenship of the user is not a criterion.

The following services are subject to French DST for a given fiscal year:

- Marketplaces, when, for at least one delivery of goods or a provision of services for which the transaction is carried out by means of the digital interface, either the seller or the buyer is located in France;
- Linking services, when at least one of the users of the digital interface has, during this given year, an account that was opened, during that same year or a previous year, from France and that enabled him to access all or part of the functionalities of the digital interface during the tax year. The renewal, including tacit renewal, of an account is considered as an opening of an account;
- Advertising placement services, when, during that year, at least one advertising message has been placed on a digital interface that a user has accessed by means of a terminal located in France;
- Data transmission services, when, on the one hand, all or part of the data was transmitted during this same year and, on the other hand, at least one of the users to whom this data relates was located in France when these data were generated or collected (including when the data was generated or collected during a previous year).

Tax thresholds

Services will be taxed to the extent that the following two thresholds are exceeded, based on the taxable amounts received by the members of the DST group in the calendar year preceding the chargeable event:

- EUR 750 million of taxable amounts in respect of taxable digital services supplied (“*Global Threshold*”);
- 25 million euros of taxable amounts in respect of taxable digital services taxable in so far as they are attributable to France (“*National Threshold*”).

These thresholds are assessed on the basis of the addition of taxable amounts at the level of a DST group.

Thus, once the list of taxable services to be taken into account at the level of the DST group for year N has been determined, the amount of DST withheld is, for each of these services, the taxable amounts collected in N-1.

Computation and payment

The chargeable event is set at 31 December of the year in which sums were received in consideration for the supply in France of a taxable service.

The entity liable to pay the DST is the one which collects the sums paid in consideration for taxable services. The liability to pay the DST arises at the same time as the chargeable event.³²

³² Art. 299 ter of the FTC

The amount to be paid is equal to the product of the following three terms:

- the total sums received, at world level, in consideration of taxable services, referred to as “taxable sums”;
- a percentage representative of the share of taxable services relating to France, referred to as the “national presence coefficient”, which is determined differently for each sub-category of services. For instance, (i) for placement services, this is the proportion of advertising messages that have been targeted, during a calendar year, to a user located in France, and (ii) for data transmission services, this is the proportion of users for whom all or part of the data transmitted has been generated or collected when consulting a digital interface from France.
- the rate of 3%.³³

4.2. Incentives

IP Box

According to the French “IP Box” regime provided for under article 238 of the FTC, eligible companies can benefit from a reduced rate of 10% on their net proceeds deriving from the sale, license or sub-license of patents and similar eligible intangible assets.

The eligible intangible assets include “software protected by copyright”, defined by the FTA as a set of instructions, programs, processes and rules, as well as any associated documentation and preparatory design material, relating to the operation of an information processing tool. The software is characterised by intangible elements including the programs necessary for processing information and their developments as well as any tangible elements serving as support for the intangible elements.

This regime should not apply to the mere access to data, transfer of a copy of structured data, or authorization to display structured data, if there is no sale or concession of the software itself.

Research and development tax credit

Some companies that incur research or innovation expenses can benefit from the research and development tax credit (*R&D Tax Credit*), under certain conditions. The R&D Tax Credit also applies to certain companies exempt from corporate income tax such as innovative start-ups.³⁴

Eligible research operations are (i) basic research activities, (ii) applied research activities and (iii) experimental development activities.³⁵

- Basic research consists in experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.³⁶

³³ Art. 299 quater II of the FTC

³⁴ Art. 244 quater B, I of the FTC

³⁵ Art. 49 septies F of the Annex III of the FTC, and the FTA have defined the research operations eligible for the tax credit on the basis of Frascati Papers drawn up by the OECD (BOI-BIC-RICI-10-10-10-20-13/07/2021 No. 1)

³⁶ French tax authorities doctrine (BOI-BIC-RICI-10-10-10-20-13/07/2021 n°20 et seq.)

- Applied research consists in original work undertaken in order to acquire new knowledge, directed towards a specific practical goal or objective.³⁷
- Experimental development is work carried out in a systematic way, based on existing knowledge obtained through research and/or practical experience, in order to initiate the manufacture of new materials, products or devices, establishing new processes, systems and services, or substantially improving existing ones.³⁸
- More specially, the FTA guidelines refer to R&D operations related to information and communication science and technology.³⁹
- The study and modelling of the properties of large networks of interactions, complex systems and related game theory elements are part of fundamental research.
- The analysis of the functioning of tools (search engines, recommendations, rating, decision support) working on these large volumes of data in order to use, anticipate or guide the results provided by these tools is applied research.
- The large-scale implementation and study of new tools in sectors where their effectiveness remains uncertain or may depend on strong real-time constraints is experimental development.

The R&D costs to be taken into account for the calculation of the R&D Tax Credit are the depreciation of fixed assets allocated to research, staff and outsourced expenses allocated to eligible research activities, costs corresponding to the filing and maintenance of patents etc.

In addition, innovation costs incurred by small and medium enterprises (“SMEs”) (*i.e.* with less than 250 employees, and less than 50 million in turnover or 43 million in balance sheet total) are eligible for the R&D Tax Credit as well, until 31 December 2024. These expenses are incurred to carry out design operations for prototypes of new products or pilot installations of the same nature, other than prototypes and pilot installations relating to the research phase, including when these operations are subcontracted to approved companies or design offices.

The R&D Tax Credit amounts to 30% of the fraction of research expenses not exceeding €100 million and 5% above this threshold.

For innovation costs incurred by SMEs, the R&D Tax Credit is equal to 20% (or 30% for expenditure incurred from 1 January 2023) of eligible expenditure retained within the overall limit of €400,000 per year, *i.e.* a maximum R&D Tax Credit amount of €80,000 per year (or €120,000 for expenditure incurred from 1 January 2023).

The credit is set off against the CIT payable by the company for the year in which the research expenditure was incurred. The excess credit that could not be set off may be used for the payment of the tax due for the three following years.

Example 1: Broker Co which pays engineering personnel to develop data analytics software, could benefit from R&D tax credit.

³⁷ French tax authorities doctrine (BOI-BIC-RICI-10-10-10-20-13/07/2021 n°40 et seq.)

³⁸ French tax authorities doctrine (BOI-BIC-RICI-10-10-10-20-13/07/2021 n°70 et seq.)

³⁹ French tax authorities doctrine (BOI-BIC-RICI-10-10-10-20-13/07/2021 n°160 and 170)

Tax Credit for Collaborative Research

The Finance Act for 2022 has created a tax credit for expenses invoiced to companies by research and knowledge dissemination organisations under a collaboration contract concluded between 1 January 2022 and 31 December 2025.⁴⁰ Under certain conditions, companies may benefit from a tax credit equal to 40% of the expenses invoiced to them by research organisations for carrying out the research operations provided for in the collaboration contract, subject to an overall limit of €6 million per year. Research work needs to be located within the European Union or in a state party to the agreement on the European Economic Area which has concluded an administrative assistance agreement with France to combat tax evasion and avoidance (i.e. Norway, Iceland or Liechtenstein).

Innovative start-ups

Innovative start-ups may benefit from exemption from corporate income tax for their first profitable fiscal year, and then a 50% exemption of the profit made during the following profitable fiscal year.⁴¹ The exemption applies if:

- the company is a SME,
- it has been constituted for less than eleven years,
- it incurred R&D expenses representing at least 15% of the tax-deductible expenses for that fiscal year,
- at least 50% of its capital must be held by (i) an individual person, (ii) companies meeting the same conditions, (iii) certain limited funds listed in the article of the FTC, (iv) foundations or associations, or (v) public research and educational institutions,
- the activity exercise by the start-up must be genuinely new.

They may also be exempt from local taxes (i.e. property tax and territorial economic contribution) if they have been constituted for less than eight years.

Example 1: as Broker Co incurs R&D expenses (i.e., engineering personnel is paid to develop data analytics software), it could benefit from this regime if the other conditions were met.

Investment in innovative start-ups

Companies subject to corporate income tax may depreciate over five years the sums paid from 3 September 2016 to 3 September 2026 (i) for cash subscriptions to the capital of innovative SMEs located in the EU or the EEE and meeting certain conditions listed in article 217 octies of the FTC; or (ii) indirectly by subscribing to shares or units in certain French or European investment funds or open partnership companies.

This tax regime provides that:

- during the depreciation period, the beneficiary SME is not more than 20% directly or indirectly owned (capital or voting rights) by the subscribing company and its affiliates within the meaning of article 39, 12 of the FTC;

⁴⁰ Art. 244 quarter B bis of the FTC.

⁴¹ Art. 44 sexies o A of the FTC.

- at the date of subscription, the subscribing company does not hold any shares of the innovative SME for which it has not applied the exceptional depreciation;
- the payments do not exceed, for each beneficiary SME, the limit of €15 million provided under European state aid regulation in connection with state aid for risk financing;
- the securities are retained for at least two years.

Exceptional depreciation applies to the value of the securities which does not exceed 1% of the total assets of the holding company at the end of the subscription period. In a French tax consolidated group, this value is equal to 1% of the total assets of the companies in the group.

When securities are sold after the two-year period, the capital gain (or the excess of the sums distributed by the fund over the amount of the subscription minus the depreciation applied) is taxed at the standard corporate tax rate up to the amount of the depreciation applied.

4.3. Barter treatment

A vast majority of websites and applications allow users (usually individuals) to enjoy free digital service. These websites and applications collect users' data.

From a legal standpoint, the Commission of abusive clauses considered that “many contracts for the provision of social networking services include clauses stating that the services offered are free of charge; that these clauses lead the consumer or non-professional user to believe that the service is free of any consideration on his part, whereas, if any monetary consideration on his part is excluded, the data, information and content that he deposits, consciously or unconsciously, on the occasion of the use of the social network, constitute a consideration which can be analysed as a remuneration or a price, potentially recoverable by the trader”.⁴²

The Paris Tribunal (*Tribunal de Grande Instance de Paris*) held that the collection of platform users' data without any monetary consideration is an advantage, pursuant to article 1107 of the French civil code, and this advantage is the counterpart of the advantage that the platform provides to the users of the platform.⁴³

For the time being, FTA did not attempt to consider the exchange of data for free services as a barter transaction. Such a characterization would be very challenging in terms of administration.

From an income tax perspective, the transfer of data in exchange of services should be neutral for platform companies (*i.e.*, income from provision of services is offset by expenses of paying for data). Income would not be subject to withholding tax in France assuming the platform recipient is resident in a tax treaty jurisdiction. However, the individuals would be taxed on non cash income (payment for data by services) without being able to deduct the payment for services.

From a VAT perspective, if the FTA considers that the digital services are remunerated by the collected data, such provision of services would be subject to VAT. For this analysis,

⁴² Commission of abusive clauses, Recommendation n°14-02 dated 7 November 2014 “Contracts for the provision of social network services”.

⁴³ *Tribunal de Grande Instance de Paris*, 7 August 2018, n°14/07300.

the nature of the consideration is not important; it can be a sum of money, goods or services but a direct link must exist between the service rendered and the consideration received. In this respect, the platform which renders services to individuals (i.e., non-taxable users for VAT purposes), would be subject to VAT and would have to file VAT returns, this VAT would be recoverable. However, the individuals that provide data to the platform, would certainly be outside the scope of the VAT and would be exempt from filing any VAT returns.

Summarising, the barter treatment would be neutral to platforms (subject to compliance burden) but detrimental to the users.

Part Five: Indirect tax

The VAT regime is different for the sale of goods and the provision of services. Concerning transfer of data, as mentioned above, there is no rule that makes a clear distinction between “raw data” and “aggregated data”. However, in general the transfer of intangible assets qualifies as a provision of services.

5.1. Characterization of transfer of data

The European VAT Directive defines the sale of goods as the “transfer of the right to dispose *tangible* property as owner”.⁴⁴ On the contrary the provision of services is defined negatively as an operation that is not a sale of tangible assets.⁴⁵

In the same way, the European Commission considers that any transaction carried out by electronic means must be analysed as a provision of services,⁴⁶ and the OECD stated that “delivery of digitized products should not be treated as delivery of goods”.⁴⁷

Moreover, two articles of the FTC qualify the transfer of “information” or databases as a provision of services.

Article 259 B, 5° of the FTC qualifies the “data treatment and the provision of information” as provision of services. FTA indicated that this includes the provision by a company of the names and addresses registered in its data folders.⁴⁸

Article 259 B, 12° of the FTC referring to article 98 C of Annex III to the FTC provides examples of “services provided by electronic means”:

- provision of images, texts, “information” and databases. FTA provide some examples of “information”: newspapers publications, books, road, weather or financial information such as stock market prices.⁴⁹ But there is no other precision regarding whether “information” means raw data, aggregated data or analyses of aggregated data.

⁴⁴ European Directive 2006/112/CE, art. 14.

⁴⁵ Art. 14.1 of the European Directive 2006/112/CE.

⁴⁶ Art. 9 §2 (e) n°12 of the European Directive 77/388/CEE dated 1998.

⁴⁷ Report of OECD Committee on tax and electronic trade, dated 23 February 2006.

⁴⁸ French tax authorities doctrine BOI-TVA-CHAMP- 20-50-50-25/09/2019.

⁴⁹ French tax authorities guidelines BOI-TVA-CHAMP-20-50-40-20-22/12/2021 n°180.

- provision of online databases, within the meaning of article L. 112-3 of the French Intellectual Property Code, is also considered to be an electronic service.
- remote maintenance of programs and equipment. This includes automated program maintenance, online data warehousing (electronic data storage and retrieval), etc.⁵⁰

The FTA indicated that to qualify as “services provided by electronic means” the services must be (i) largely automated services, (ii) provided by internet or by an electronic network, (iii) with a minimal human intervention, and (iv) impossible to provide in the absence of technology.⁵¹

In addition, tax courts and authorities provided details in connection with software that might be applicable to big data transfer (even though software and data must be distinguished) and consider that the transfer of “standard” software made *without any material support* is a “provision of service” and not a “sale of good”. When the transfer involves “specialised” software (adapted to clients’ wishes and needs), the transfer is always a “provision of services”.⁵²

Thus, the access to raw data, transfer of a copy of structured data, or authorization to display structured data should be considered as a “provision of services by electronic means” for VAT purposes.

5.2. VAT regime

The VAT regime applicable to provision of services depends on whether the services are rendered to a VAT taxable beneficiary (*B to B transaction*) or a non VAT-taxable beneficiary (*B to C transaction*). A “taxable beneficiary” is a person who independently carries out an economic activity, irrespective of the place where such activity is carried out, its purpose or its results. In certain circumstances, it can also be a non-taxable person who has a VAT number.

“B to B” transaction

When a provision of services is deemed to take place in France within the meaning of the rules set out below, it should be subject to French VAT (unless exceptions or exemptions apply).

The place of supply of services is located in France when the taxable beneficiary (i) has his place of business in France, unless it has a fixed establishment not situated in France to which the services are supplied, (ii) or a fixed establishment in France to which the services are supplied, (iii) or, if the conditions under (i) and (ii) are not met, its domicile or habitual residence.⁵³ Conversely, the place of those services is not located in France when the taxable beneficiary is a taxable person acting as such who meets the same conditions in another member state of the European Union or outside the European Union.

When the service provider and the beneficiary are both located in France, the VAT taxpayer is the provider of services.

⁵⁰ French tax authorities doctrine BOI-TVA-CHAMP-20-50-40-20-22/12/2021 n°160.

⁵¹ French tax authorities doctrine BOI-TVA-CHAMP-20-50-40-20-22/12/2021 n°70.

⁵² EUCJ 27 October 2005, n°16165; BOI-TVA-CHAMP-20-50-50-25/09/2019 n° 40.

⁵³ Art. 259 1° of the FTC – BOI-TVA-CHAMP-20-50-20.

When the service provider is not located in France and the supply of services is subject to French VAT (*i.e.*, the beneficiary is located in France), the VAT taxpayer is the beneficiary of service (so-called VAT reverse charge mechanism).⁵⁴

Example 1: if Broker Co is located in France, and Website Co is located in another country, French VAT will apply, and Broker Co will have to pay VAT by reverse charge. However, if Broker Co and Website Co are located outside France, even if the transferred data relate to French individuals, the transaction will not be subject to French VAT.

“B to C” transaction

The place of supply of electronic services provided for in article 259 B,12° of the FTC is deemed to be in France when they are made to non-taxable persons who are established (or have their domicile or habitual residence) in France, regardless of the place of establishment of the supplier.⁵⁵

VAT is payable by the provider of services.⁵⁶ If the non-French service provider is not established in the European Union, it must appoint a specially licensed tax representative who undertakes to complete the formalities incumbent on that person and, in the case of taxable transactions, to pay the tax in his place.⁵⁷

Example 2: if Information Site Co charged its users (who are not VAT taxpayers) a fee, French VAT would apply if the users were located in France, and the VAT taxpayer would be Information Site Co.

Part Six: Tax Accounting

6.1. Capitalization and depreciation

General conditions

Only fixed assets (i) recorded in the balance sheet of the company (*i.e.*, that meet the definition of assets and that are intended to be used in a sustainable manner within the company) and (ii) whose expected use by the company is limited in time, may be depreciated.

Intangible fixed assets may be depreciated if it is normally foreseeable, at the time they

⁵⁴ Art. 283, 2 of the FTC.

⁵⁵ Art. 259 D, I-1 of the FTC. By exception, the place of supply of such services shall not be deemed to be in France where they are supplied by a supplier who is established in another EU member state (or, in the absence of such establishment, who has his permanent address or usually resides in that other member state), to non-taxable persons who are established (or have their permanent address or usually reside) in France, and the total value of those services does not exceed, during the calendar year in progress at the time of the supply and during the preceding calendar year, the threshold of €10,000 (excluding VAT). Suppliers whose services do not exceed that threshold may elect, in the member state where they are established, for the place of supply of those services to be in the state of the non-taxable customer – art. 259 D, I-2 and 3 of the FTC and art. 259 D II of the FTC.

⁵⁶ Art. 283, I of the FTC.

⁵⁷ Art. 289 A of the FTC.

are created or acquired, that the benefit to the enterprise will cease at a given date.⁵⁸ This is the case for patents, models, industrial processes, and designs.⁵⁹ Software acquired by companies can also be depreciated over its actual useful life.⁶⁰

In the same way, licences granting the use of industrial property rights are capitalized and depreciable when they (i) constitute a regular source of profit, (ii) are sufficiently permanent and (iii) are transferable.⁶¹ In practice, the assessment of the condition relating to the existence of a regular source of profits has led judges to impose the booking of the licensee's rights as fixed assets only in situations where their prerogatives were granted to them on an exclusive basis. This decision has been applied to rights to use and commercialise software,⁶² and the right to use a domain name.⁶³

More generally, the rights attached to contracts (*e.g.* exclusive distribution agreements), could also be considered as intangible fixed assets subject to depreciation.

When this qualification is retained, these rights may give rise to the recognition of depreciation, taking into account the duration of the contract (if they are granted on a temporary basis) or the period during which they are likely to have beneficial effects on the business.

Neither the FTA, nor judges have adapted these solutions to the transfer of big data, but if all the conditions are met, the right to access/use data should be considered as fixed assets subject to depreciation.

Example 1: Broker Co should be able to depreciate the data analytics software. However, the right to access Website Co's data should not be treated as an intangible fixed asset as it is unlikely that the right to access Website's data is exclusive.

Example 2: Animal Data Co should be able to depreciate the analytics tools. Concerning Information Site Co, it should not be able to depreciate the right to display structured data provided by Animal Data Co because it does not constitute a regular source of profit (*i.e.* Information Site Co does not charge its users a fee to view the information).

Exceptional depreciation

Companies meeting the European definition of SMEs may deduct from their taxable income in addition to the "standard depreciation" a sum equal to 40% of the original value of certain goods (in the robotics and digital sectors) used in an industrial activity:

- goods acquired in new condition or manufactured as of 1 January 2019 to 31 December 2020 that have been the subject to a firm order or a final decision to manufacture them as of 20 September 2018;
- goods acquired in new condition as of 1 January 2021 if they are ordered by paying down payments at least equal to 10% of the price of the good before tax, between 1 January

⁵⁸ French Administrative Supreme Court, 4 April 1989 n°08153, and French tax authorities guidelines BOI-BIC-AMT-10-20-01/03/2017 n°340.

⁵⁹ For instance: French Administrative Supreme Court, 28 December 2007 n° 284899 and 285506.

⁶⁰ French Administrative Supreme Court, 22 February 1984, n°39535.

⁶¹ French Administrative Supreme Court, 21 August 1996 n°154488.

⁶² French Administrative Supreme Court, 19 July 2019 n°368473.

⁶³ French Administrative Supreme Court, 7 December 2019 n°369814.

2019 and 31 December 2020, if the acquisition takes place within twenty-four months from the date of the order.

The deduction is spread on a straight-line basis over the useful life of the asset.

The deduction is especially applicable to integrated machines for high-performance computing (or “supercomputers”), physical sensors collecting data on the company’s production site, production line or transitic systems or programmable or numerically controlled production machines.

Part Seven: Other

7.1. DAC6 reporting

In 2018 the member states of the European Union adopted the so-called “DAC 6” Directive.⁶⁴ It requires intermediaries, or taxpayers where applicable, to report to the tax authorities cross-border schemes that are considered potentially aggressive for tax purposes.

In particular, cross-border transfers between related entities of intangible assets which are difficult to evaluate, are considered as a “potential aggressive scheme” for tax purposes.

As a result, cross-border transfers of big data between related entities could trigger reporting obligations for intermediaries or taxpayers.

7.2. Open data from online platforms used for tax audit

In order to detect certain fraudulent behaviour, the Finance Act for 2020 provided that as of 1 January 2020 for a period of three years, the FTA and customs can collect and exploit, by means of computerised and automated processing (that does not use any facial recognition system), the content freely accessible on the websites of online operators. Only content that is clearly made public by users shall be covered. This disposal is only experimental and is designed to find operations of unregistered businesses deploying taxable activity on social networks as well as to track fraudsters.

7.3. Reporting obligations of platform operators who facilitate transactions on their website

The Finance Act for 2022 transposes into national law EU Directive 2021/514 of 22 March 2021 (DAC 7 Directive) providing that certain internet platforms that put people in contact with each other with a view to selling a good, providing a service or exchanging or sharing a good or service must (i) file a declaration with the French tax authorities regarding transactions carried out through the platform by sellers and service providers, when these platforms enable directly or indirectly the rental of real estate, the provision of a service by natural persons, the sale of goods and/or the rental of a means of transport, and (ii) inform users of their social and tax obligations, send them a summary of the information transmitted

⁶⁴ European Directive n°2018/822 dated 25 May 2018.

to the French tax authorities to each vendor or service provider concerned on the same date and inform them that such information may also be communicated to foreign tax authorities.⁶⁵ These new obligations replace the comparable obligations that are provided for in article 242 *bis* of the FTC, but only in respect of users residing in France or carrying out sales or services there. The new reporting obligation and automatic exchange between tax authorities will take effect in 2024 for transactions carried out in 2023.

7.4. French tax authorities' right of communication with internet operators limited to the most serious offences

With the prior authorisation of a controller of connection data requests, the French tax authorities can be provided with various data held by electronic communication operators and Internet access and hosting providers.⁶⁶ Since 2019, this right of communication can only be used for the purposes of investigating or establishing certain serious offences, which are listed exhaustively. The Finance Act for 2022 has restricted the list of offences concerned.

⁶⁵ Arts 242 bis and 1649 ter A to 1649 ter E of the FTC.

⁶⁶ Art. L. 96 G of the French Tax Procedure Code.

Summary and conclusions

There are no specific substantive tax laws in Germany relating to data transactions. As a result, the tax consequences of any given transaction must be determined by applying the pertinent sections of the Income Tax Act (ITA – Einkommensteuergesetz), the VAT Act (Umsatzsteuergesetz) and the Foreign Tax Act (FTA – Außensteuergesetz), which contains Germany's transfer pricing and CFC rules. In a purely domestic setting, all income from commercial data transactions carried out for profit would be characterized as "business income" under section 15 ITA. Income from services arises if the taxpayer is paid to perform a certain activity (contract for services under section 611 of the Civil Code (CC) – Bürgerliches Gesetzbuch) or to supply a pre-defined non-tangible work result such as performing a test and reporting the results thereof (contract for work results under section 631 CC). For example, a contract under which the taxpayer is required to use his own expertise to deliver results or data without having to also divulge his methods would not be classified as a know-how license agreement but as "knowledge-based services". A contractual "license to use and access the services" granted by the operator of an electronic platform to his customers will be treated as a contract for services even though the parties use the term "license" to describe the services. It does not matter in this regard that the platform incorporates a self-service interface and that transactions are carried out automatically without human intervention. More specifically, it is not possible to treat this type of automated service as a lease of tangible property or a license for the use of an intangible such as a computer program. The same analysis applies with respect to fully automated online advertising services even if the provider's business model requires large amounts of personal data to target advertising to specific audiences and utilizes advanced algorithms to maximize conversions. Transactions of this type are services and not licensing transactions.

Germany imposes tax on certain items of income derived by foreign taxpayers under section 49 ITA. With respect to data transactions, however, only three income categories of section 49 ITA need to be discussed: The first potentially relevant category is domestic business income, which includes income from a domestic permanent establishment and income derived through a domestic permanent agent under section. 49(1) no. 2a ITA. Germany's permanent establishment concept is fairly similar to article 5 of the OECD Model Convention (OECD MC), so there are no surprises to be expected. In particular, an automated server that is at the disposal of – and operated by – the foreign taxpayer will create a server permanent establishment under sections 49(1) no. 2a ITA and 12 of the General Tax Code (GTC – Abgabenordnung). The concept of permanent agent, however, is much broader than even the recently expanded concept of agency permanent establishment under article 5 OECD MC. It includes not only brokers but also unrelated internet marketing affiliates that

¹ Dr., LL.M International Taxation (NYU) lawyer, tax advisor, and associated partner with Flick Gocke Schaumburg, Germany's leading tax firm.

(i) solicit business for the foreign taxpayer regularly and (ii) are paid on a contingent basis (e.g., pay-per-sale model, revenue sharing). The second potentially applicable category of income includes royalty income of foreign corporations and income from the transfer of rights by foreign corporations under section 49(1) no. 2a ITA. Fortunately, the German Federal Ministry of Finance issued guidelines in 2017 that favor a narrow interpretation so that a tax liability is triggered only if the licensee is granted the right to commercially exploit the copyright in a database. The guidelines do not mention the supply of streaming data for display on a customer's website. While the customer has arguably been granted a right to publicly display the content of the database, which might trigger a tax liability (similar to a license to show a movie to a cinema audience), the customer neither reproduces nor sublicenses the data. In addition, the data streaming contract may be classified as a "data delivery contract", under which the database owner is required to perform services that include frequent updates and reliable transmission of the data to the customer. The third potentially relevant category of income is royalty income from know-how under section 49(1) no. 9 ITA. Provided that the transaction does not involve the licensing or sale of a database protected under copyright law, payments for the collection and transfer of raw data can be characterized as income from services, which is not taxable in Germany. The same analysis applies to "knowledge-based services" such as targeted online advertising and big data analyses prepared by a foreign taxpayer for use by a customer in Germany.

The issue of barter transactions involving user data has come up in Germany in a VAT context. While the EU VAT Committee laid down some useful guidelines on 3 November 2018, the German tax authorities do not feel bound by these guidelines as the EU VAT Committee has a strictly advisory function. It is likely that there will be more cases in the future and that the controversy will ultimately come before the ECJ. No official guidance has been published by the German tax authorities on transfer pricing issues resulting from intragroup transfers of data. In particular, it is not clear whether an enterprise that collects data for other associated enterprises that process and monetize the data should be entitled to a share of the group's residual profits. There are also cases in which two associated enterprises have joint controllership of personal data. So, the outcome of the analysis would depend on the facts and circumstances of each case.

Introduction: Legal background

From a private law perspective, there is a clear distinction between (i) raw data such as unstructured sensor readings and (ii) aggregated or processed data which has been organized into a database that allows retrieval of single datasets or elements using specific search criteria. While the maker of a database is entitled to copyright protection under sections 87a, 87b of the Copyright Act (CA – Urheberrechtsgesetz), which includes the exclusive right of the maker to exploit the database commercially by granting usage rights to other persons, an originator of raw data or "piles of data" (Datenhaufen) is not protected under copyright law. Moreover, data as such is not considered to be property as it is just a way of expressing, storing or conveying information. The recently enacted Trade Secrets Protection Act (Geheimnisschutzgesetz), which transposes the European Trade Secrets Directive into national law, provides some legal protection for trade secrets including all forms of raw data and aggregated data. However, the new rules do not reach the level of copyright protection in that a business owner does not have any exclusive right to exploit

his trade secrets commercially. As a result, legally protected trade secrets are not on a par with intellectual property rights such as copyrights and patents.²

Being a member state of the EU, Germany is bound to apply the GDPR. Consequently, the processing of personal data requires individual consent in almost all instances.³ It is also undisputed under private law that an internet user who consents to the processing of his personal data in order to obtain a service “for free”, is actually engaging in a barter transaction in which he trades non-monetary consideration for services provided to him by the other party.⁴

Typical “raw data transactions” are the collection of personal data at source which requires obtaining consent from the other party, the collection of other data which may or may not require a contract with another person (e.g., sensor readings), the processing of data under a services contract between the controller and the processor, the disclosure of personal data by the controller to a recipient of this data and the transfer of other data to a recipient. It should be noted that “consent” to use personal data and the grant of a “license” for intellectual property rights are two completely different concepts. In particular, an internet user who consents to the use of his personal data for commercial purposes of the controller is not entitled to receive compensation for the commercial exploitation of the data. In other words, once the controller has cleared the legal hurdle of properly obtaining consent from an internet user, only the controller will reap the benefits of any subsequent “monetization” of the data. “Aggregated data transactions” often involve databases that are protected under copyright law (e.g., end user license agreement, license to commercially exploit the database). “Big data analytics”, if performed for another person, can either involve the provision of services or a transfer of knowledge. The business of licensing analytical software to commercial users is another example of “big data analytics” but will not be discussed in this report.

Part One: Basic principles: Character, source and nexus

1.1. General overview

There are no specific substantive tax laws in Germany relating to data transactions. This is consistent with the premise that tax legislation should be as “technology neutral” as possible in order to ensure equal treatment of all taxpayers in accordance with the ability-to-pay principle. As a result, the tax consequences of any given transaction must be determined by applying the pertinent sections of the Income Tax Act (ITA – Einkommensteuergesetz), the VAT Act (Umsatzsteuergesetz) and the Foreign Tax Act (FTA – Außensteuergesetz), which contains Germany’s transfer pricing and CFC rules. German GAAP may also play a role as tax accounting is largely based on financial accounting. Finally, German municipalities impose

² This is clear from the legislative materials, cf. BT-Drucksache no. 19/4742, 26. However, some commentators argue that protected trade secrets should be treated as intellectual property rights for income tax purposes (Cloer/Heckerodt, FR 2021, 709; Petersen/Herbst, IStR 2021, 745).

³ Art. 6(1)(a) GDPR.

⁴ LG Berlin, 11 November 2013, MMR 2014, 563. By contrast, obtaining a user’s consent in connection with the provision of services that are free of charge does not by itself result in a barter transaction (Klink-Straub, NJW 2021, 3217 (3219)).

local income taxes (trade taxes) on certain business activities. Section 8 of the unified Trade Tax Act (TTA – Gewerbesteuerengesetz) disallows part of a taxpayer's royalty deductions to prevent erosion of the local tax base.

1.2. Character

In a purely domestic setting, all income from commercial data transactions carried out for profit would be characterized as “business income” under section 15 ITA. This section of the tax code utilizes a comprehensive concept of income, so there is no need to differentiate between certain types of transactions such as the provision of services or transfers of property. The analysis is different, however, for cross-border transactions as Germany imposes income tax only on certain categories of income derived by foreign taxpayers under section 49 ITA. Characterization of income is also necessary under section 34d ITA (domestic taxpayers' foreign income) and section 8(1) FTA (CFC income). Section 8 TTA requires taxpayers to categorize deductions for trade tax purposes.

While income characterization is a specific income tax principle, there are some connections to tax accounting principles, which in turn mostly rely on private law and various economic doctrines such as “beneficial ownership”. Digital data will be treated as tangible property only if the data is very simple or trivial in nature (e.g., a sequence of names and telephone numbers) and physically stored on a disk or other medium (e.g., a list of names and telephone numbers stored on a compact disc).⁵ The transfer of this physical object for consideration would be classified as a sale of tangible movable property (chattel) just like the sale of a telephone book. The same analysis may also apply to raw data regardless of the number of data points. However, if the data is more complex and structured or even subject to protection under intellectual property law, it will be treated as intangible property for income tax purposes regardless of how it is stored or conveyed to the buyer.⁶ Within the category of intangible property, a distinction can be made between intellectual property rights (e.g., copyright on a database) and other intangibles such as unprotected information (e.g., aggregated data the compilation of which did not require a significant investment by the person which compiled the data). The transfer of an intellectual property right as such would require assignment under section 398 CC (Bürgerliches Gesetzbuch), whereas unprotected information would simply be handed over or conveyed by the seller to the buyer (e.g., paper document or electronic file containing know-how). It should be noted that a grant of perpetual license is also treated as a sale under tax accounting principles (sale of a right to use the intellectual property of the seller). However, certain copyrights cannot be transferred under section 29 CA (Urheberrechtsgesetz), which may require treating the transfer as a license for the purposes of section 49 ITA.⁷ Apart from that, a transaction involving the use of data for a limited period will be characterized as a license with respect to intangible property.

Income from services arises if the taxpayer is paid to perform a certain activity (contract for services under section 611 CC) or to supply a pre-defined non-tangible work result such as performing a test and reporting the results thereof (contract for work results under section

⁵ BFH, 5 February 1988, BStBl. II 1988, 737.

⁶ BFH, 30 October 2008, BStBl. II 2009, 421.

⁷ BFH, 24 October 2018, BStBl. II 2019, 401.

631 CC). For example, a contract under which the taxpayer is required to use his own expertise to deliver results without having to also divulge his methods would not be classified as a know-how license agreement but as “knowledge-based services”. This is especially true for mere analyses of big data which do not also include the transfer of specific know-how that would allow the customer to reproduce the results. It is also important to understand that the courts do not feel bound by the language of a contract if there is a mismatch between the purported rights and obligations of the parties to the contract and economic reality. For instance, a contractual “license to use and access the services” granted by the operator of an electronic booking platform to his customers will be treated as a contract for services even though the parties use the term “license” to describe the services. It does not matter in this regard that the platform incorporates a self-service interface and that transactions are carried out automatically without human intervention. More specifically, it is not possible to treat this type of automated service as a lease of tangible property or a license for the use of an intangible such as a computer program for the purposes of section 8 TTA.⁸ The same analysis applies to fully automated online advertising services even if the provider’s business model requires large amounts of personal data to target advertising to specific audiences and utilizes advanced algorithms to maximize conversions. Transactions of this type are services and not licensing transactions.⁹

1.3. Source

Income derived from data transactions will be foreign source income under section 34d no. 2a ITA if the income is connected to a foreign permanent establishment of the taxpayer or derived through a permanent agent’s activities in a foreign country. This source rule applies to all types of transactions involving data. In the absence of a foreign permanent establishment or foreign permanent agent, a taxpayer may have foreign source income if the transaction involves a cross-border copyright license or know-how license. Copyright royalties are foreign source income if the licensee has the right to use the copyright in a foreign country (section 34d no. 2a and no. 7 ITA). By contrast, know-how license fees and income from know-how transfers are sourced in the country of residence of the licensee or buyer under section 34d no. 2a and no. 7 ITA.

Income of a domestic taxpayer that is not foreign source income under section 34d ITA will be treated as domestic source income. With respect to income of foreign taxpayers, as German source and nexus rules are inseparable, foreign taxpayers’ income sourced in Germany will be taxed. In particular, there are no additional requirements or thresholds for taxation if a domestic source has been established. The details will be discussed in the following subsection.

1.4. Nexus

Germany imposes an income tax on certain items of income derived by foreign taxpayers under section 49 ITA. This section of the tax code applies to individuals as well as to

⁸ BFH, 26 April 2018, BFH/NV 2018, 1199.

⁹ BMF, 3 April 2019, BStBl. I 2019, 256.

corporations. While there must be some connection between the foreign taxpayer's income and Germany's territory, section 49 does not differentiate between the concepts of "source" and "nexus". Instead it provides an exhaustive catalog of different categories of "taxable domestic income" each of which has its own rationale and triggers a tax liability if all statutory criteria within the specific category of income are met. For data transactions, however, only three income categories of section 49 ITA need to be discussed:

- i. The first potentially relevant category is domestic business income, which includes income from a domestic permanent establishment and income derived through a domestic permanent agent under section 49 I no. 2a ITA. Germany's permanent establishment concept is fairly similar to article 5 OECD MC so there are no surprises to be expected. In particular, an automated server that is at the disposal of and is operated by the foreign taxpayer will give rise to a server permanent establishment under sections 49 I no. 2a ITA and 12 GTC (Abgabenordnung). The concept of permanent agent, however, is much broader than even the recently expanded concept of agency permanent establishment under article 5 OECD MC. It includes not only brokers but also unrelated internet marketing affiliates that (i) solicit business for the foreign taxpayer regularly and (ii) are paid on a contingent basis (e.g., pay-per-sale model, revenue sharing). By contrast, online advertising services provided by a domestic website operator to the foreign taxpayer under a pay-per-mille compensation scheme do not trigger a tax liability of the foreign taxpayer. Even if tax is triggered under section 49 ITA, the existence of a server permanent establishment or a permanent agent may not result in a significant tax liability under the Authorized OECD Approach.¹⁰
- ii. The second potentially applicable category of income includes royalty income of foreign corporations and income from the transfer of rights by foreign corporations under section 49(1) no. 2a ITA. This category of income requires that the foreign taxpayer licenses or sells a database that is protected under copyright law and the database is being "exploited" under a license contract or has been "exploited" (before the sale) in a domestic permanent establishment of the licensee/buyer or any third party. The wording of the statute is fairly vague because "exploitation" could either mean "mere usage of a database" (e.g., right to access a database and retrieve data from it) or "commercial exploitation of a database" (e.g., right to exploit the copyrighted database by reproducing it in order to sell copies to customers or by sublicensing it to other persons). Fortunately, the German Federal Ministry of Finance issued guidelines in 2017 that favor a narrow interpretation so that a tax liability is triggered only if the licensee is granted the right to commercially exploit the copyright. This approach is based on copyright law (sections 87a and 87b CA) and largely consistent with paragraphs 13, 14.1 and 17.1 through 17.5 of the Commentary on article 12 OECD MC, which also differentiate between the mere use of a copyrighted article by an end user and the right to commercially exploit a copyright. As a result, routine inbound data transactions such as the retrieval of data by end users from a database operated by a foreign taxpayer do not trigger a tax liability under section 49 I ITA. This is true even if the customer uses the retrieved data in his domestic business (e.g., a bank retrieves stock prices or company ratings from a database to advise its own customers on their investment decisions).¹¹ By contrast, any grant of more extensive rights of use such as the right to reproduce

¹⁰ BMF, 17 December 2019, BStBl. I 2020, 84.

¹¹ BMF, 27 October 2017, BStBl. I 2017, 1448, note 36.

the database for distribution or the right to make the database publicly available for download would trigger a tax liability for the foreign licensor. The guidelines do not mention the supply of streaming data for display on a customer's website. While it could be argued that the customer has been granted a right to publicly display the content of the database, which might trigger a tax liability (similar to a license to show a movie to an audience in a cinema), the customer neither reproduces nor sublicenses the data. In addition, the data streaming contract may be classified as a "data delivery contract", under which the database owner is required to perform services which include frequent updates and reliable transmission of the data to the customer.¹² Another issue that often comes up with copyrighted databases is withholding taxes. Withholding tax is levied under section 50a I no. 3 ITA on domestic royalty income of foreign taxpayers whereas capital gains are not subject to withholding at source (but may still be taxable under section 49 I no. 2f ITA, meaning that the foreign taxpayer must file an income tax return in Germany). The legislative rationale for excluding capital gains was that Germany cannot tax capital gains under article 13 OECD MC. There is no point in imposing a withholding tax that would have to be refunded to the foreign taxpayers in virtually all cases. The different treatment of royalties and capital gains for withholding tax purposes, however, raises the issue of whether database transactions should be structured as transfers rather than license agreements so as to avoid the withholding tax. In 2018 the Federal Tax Court held that income from a full or partial transfer of a copyright is subject to withholding tax anyway because (i) copyrights are not fully transferable under section 29(1) CA and (ii) and the creator retains an economic interest in the copyright under sections 32a, 32b CA if the transferee's proceeds from the exploitation are in excess of what the parties could reasonably expect when they concluded the contract. It can be argued, however, that this analysis applies only to creative works such as works of literature and music, whereas database copyrights are fully transferable under copyright law and the only purpose of copyright protection is to preserve the maker's investment in the database. As a result, the full or partial transfer of copyrights in a database should not trigger withholding taxes under section 50a ITA.

- iii The third potentially relevant category of income is royalty income with respect to know-how under section 49(1) no. 9 ITA. Payments for the use of know-how are taxable in Germany if the know-how is used in Germany. The term "know-how" includes inventions which have not been patented and therefore are not intellectual property "rights" within the meaning of section 49(1) no. 2f ITA, and special expertise in the areas of commerce, science and technology. In addition, an invention or method will be treated as know-how only if it is valuable in that the recipient can save time or money by obtaining it from the foreign taxpayer.¹³ By contrast, trivial knowledge and publicly available knowledge do not qualify as "know-how" under section 49 I no. 9 ITA. It is also not relevant for the purposes of section 49(1) no. 9 whether the information is kept secret and would be protected under the European Trade Secrets Directive (EU) 2016/943.¹⁴ The nexus criterion "know-how used in Germany" refers to any use in the territory of Germany and thus should be construed more broadly than the corresponding nexus criterion of section 49(1) no. 2f ITA that requires "exploitation in a domestic permanent

¹² FG Niedersachsen, 6 December 2018, BeckRS 2018, 42909; Badde, BB 2021, 2460 (2461).

¹³ BFH, 13 November 2002, BStBl. II 2003, 249.

¹⁴ Haase, DStR 2019, 761 (764),

establishment". Income tax is imposed on a wide range of know-how transactions such as irrevocable licenses and "know-how transfers" or "know-how duplications", under which the recipient is allowed to use the know-how forever and is not required to return anything to the foreign taxpayer. Even an outright know-how sale will be classified as taxable know-how license unless the foreign taxpayer can prove that he has fully and finally disposed of the know-how and no longer has access to it.¹⁵ As explained above (1.2), "knowledge-based services" are categorized as commercial services and are therefore not taxable in Germany. Payments for the development of know-how which is then to be transferred to the payor are taxable income under section 49 I no. 9 ITA. In a recent decision, the Regional Tax Court of Munich did not even contemplate bifurcation of the remuneration although development work can be analyzed to include a provision of services followed by the transfer of the development results.¹⁶ It is somewhat difficult to apply section 49(1) no. 9 ITA to data transactions. Provided that the transaction does not involve the licensing or sale of a database protected under copyright law, payments for the collection and transfer of raw data can be characterized as income from services, which is not taxable in Germany. The same analysis applies to "knowledge-based services" such as targeted online advertising and big data analyses prepared by a foreign taxpayer for use by a customer in Germany. On the other hand, the transfer of know-how on how to analyze pools of data would result in a tax liability under section 49 I no. 9 ITA and require the payor to withhold income tax under section 50a I no. 3 ITA.

Reference case studies

Under Germany's source and nexus rules, payments made by customers to the data broker/information reseller in reference case study #1 would be characterized as business profits which are not taxable in Germany. In particular, Website Co does not solicit customers for Broker Co and does not act as a permanent agent of Broker Co within the meaning of sections 49(1) no. 2a ITA, 13 GTC. The payments made by customers to Broker Co can also not be characterized as royalties for the use of a copyright protected database under section 49(1) no. 2f ITA because the customers do not have the right to commercially exploit the datasets. There is also no royalty income under section 49(1) no. 9 ITA, which would require the conveyance of know-how from Broker Co to its customers. The customers merely receive pre-sorted data without gaining any knowledge beyond that. If Broker Co were a domestic taxpayer receiving payments from foreign customers, the income would be domestic source income and not foreign source income under section 34d no. 8c ITA. The same analysis applies to payments received by Website Co, a domestic taxpayer, from foreign taxpayer Broker Co for the permission to collect user data on its website.¹⁷

Payments made by Information Site Co to Animal Data Co for the right to display a data stream publicly (reference case study #2) are difficult to characterize. In an inbound case, the German tax authorities would likely take the position that foreign taxpayer Animal Data Co is liable to income tax under section 49(1) no. 2f ITA because Information Site Co

¹⁵ FG Muenchen, 14 May 2018, EFG 2018, 1184 (BFH review pending, docket no. I R 18/18).

¹⁶ FG Muenchen, 14 May 2018, EFG 2018, 1184 (BFH review pending, docket no. I R 18/18).

¹⁷ Contrary to its broad language, which appears to include services income of all kinds, s. 34d no. 8c ITA applies only to specific categories of income (*Klein/Link*, in H/H/R, § 34 EStG note 101).

is entitled to publicly display major parts of a database protected by copyright. The royalty income would be sourced in Germany as Information Site Co exploits the data in its business in Germany. On the other hand, it could be argued that Animal Data Co is merely providing a service to Information Site Co which essentially consists of timely and uninterrupted “delivery” of actual migration data and forecasts of migration patterns.

Payments for the delivery of automated services by Services Co, a foreign taxpayer, to its customers in Germany (reference case study #3) are not taxable in Germany under section 49(1) ITA if Services Co does not have a permanent establishment in Germany. If Services Co's business requires use of an internet server in Germany to perform automated services in real time, the outcome of the analysis depends on whether Services Co maintains a fixed place of business that is at its disposal (e.g., data center owned and operated by Services Co). By contrast, a website or software hosted on a server that is operated by a web hosting business in Germany would not create a permanent establishment for Services Co. If the provider of the webhosting services is a related party, the German tax authorities might take a closer look to determine whether the transaction is a lease of computer equipment, which could constitute a fixed place of business for Services Co. Even in this case, it is not likely that Services Co would face any substantial tax liability in Germany because only little or no profits can be attributed to a server permanent establishment. This analysis would also apply to sensors that have been attached to products sold to customers in Germany and which remain the property of Equipment Co or Services Co. Even if the sensors were at the disposal of these foreign taxpayers and constituted multiple permanent establishments of Equipment Co and Services Co, which is hard to imagine given the fact that the equipment is under exclusive control of the buyers,¹⁸ there would not be any substantial tax liability under the Authorized OECD Approach. As a result, there is virtually no incentive for the German tax authorities to open a case.

The income tax analysis for analytics-based consultancies (reference case study #4) is fairly simple: Income from consulting services provided by Consultant Co, a foreign taxpayer, to a customer in Germany is not taxable in Germany under section 49(1) no. 9 ITA. While the services are based on Consultant Co's know-how, there is no conveyance of this know-how to the customers. Consultant Co also has no taxable royalty income from German sources under section 49 I no. 2f ITA. The researchers are not entitled to commercially exploit the database as such. Commercialization of research results obtained from a scientific database is not sufficient to trigger a tax liability under section 49(1) no. 2f ITA.¹⁹

Part Two: Application of treaty principles

2.1. General overview

Germany mostly adheres to the OECD Model Convention when negotiating tax treaties with other OECD member countries. As a result, there is a tendency to limit taxation at source to facilitate cross-border commerce and investment. Business profits will be taxed

¹⁸ BFH, 16 December 2009, BStBl. II 2010, 492 (automated sensor station); 9 January 2019, BFH/NV 2019, 681 (locker).

¹⁹ BMF, 27 October 2017, BStBl. I 2017, 1448 note 36.

only at source if they are derived through a permanent establishment as defined by article 5 OECD MC, and many German tax treaties employ a zero withholding tax rate for royalties as recommend under article 12 OECD MC. In its tax treaties with developing countries and emerging market jurisdictions, however, Germany often has to concede broader taxing rights to the other contracting state. This applies, for instance, to the tax treaties with the People's Republic of China (PRC) and India, which reflect the different tax policy objectives of these two capital-importing countries. Germany's concessions to developing countries may include taxation of income from services permanent establishments and – most notably – imposition of withholding taxes on royalties for the use of copyrights and withholding taxes on income from technical services and equipment leases. It should be noted, however, that treaty provisions cannot create additional tax liabilities of foreign taxpayers as the purpose of a tax treaty under German law is the allocation and limitation of those taxing rights that already exist under domestic law. More specifically, Germany will not be able to make use of broader taxing rights under a tax treaty if the foreign taxpayer's income is not taxable under section 49(1) ITA in the first place. As imports of goods and services from the PRC and India have increased over the years, there are cases in which inbound transactions are not taxable in Germany although Germany would have the right to impose a tax under the applicable tax treaty (e.g., services permanent establishment, technical services).

2.2. Detailed comments

Income from services will be generally characterized as business profits under article 7(1) OECD MC. Germany has a right to tax this category of income only if the foreign taxpayer has a permanent establishment in Germany under article 5 OECD MC. It is clear from paragraphs 127 through 130 of the Commentary on article 5 that an automated server located in Germany will create a permanent establishment if it is at the disposal of the foreign taxpayer and is either used in a business that is based on operating servers (e.g., webhosting or data storage) or is necessary to perform core functions of the foreign taxpayer's business (e.g., solicitation of database customers, processing of payments and delivery of data from database to customers). By contrast, independent domestic marketing affiliates that solicit customers for the foreign taxpayer and are therefore treated as "permanent agents" (brokers) under sections 49(1) no. 2a ITA and 12 GTC, will not trigger a tax liability for their foreign client under article 5(6) OECD MC. An automated server that is at the disposal of a foreign taxpayer and used only to collect user data in Germany would probably not constitute a permanent establishment under article 5(4)(d) of the 2014 version of the OECD MC as it would be performing a preparatory or auxiliary activity that is deemed not to create a permanent establishment (fixed place of business that is merely used to collect information for the taxpayer's business). Under the 2017 version of article 5 OECD MC, however, data collection through a local server could result in taxation in Germany if the activity qualifies as a core function in respect to the taxpayer's individual business activities, which might be the case if the taxpayer collects data for direct monetization through targeted advertising or by selling data to third parties. While the foreign taxpayer would have to file a tax return in Germany, the tax consequences should be manageable as "little or no profit" can be attributed to a server permanent establishment under paragraph 66 of the OECD's 2010 Report on the

Attribution of Profits to Permanent Establishments.²⁰ Although some of Germany's tax treaties incorporate the concept of the services permanent establishment (e.g. article 5(3) (b) of the tax treaty with the PRC), under which the source country may tax business profits from temporary services performed by employees of the taxpayer in the source country, this type of permanent establishment does not appear to be relevant to automated data services that do not require any of the taxpayer's employees to work in the source country.

Payments for the use of or the right to use a database that is protected under copyright law will be characterized as royalties under article 12(2) OECD MC. Capital gains from the sale and transfer of all rights in a database should be characterized as capital gains under article 13(5) OECD MC, resulting in taxation in the country of residence. Unlike copyrights in creative works, database copyrights are fully transferable under private law, so the transaction should be treated as a sale under article 13 and not as a license agreement under article 12 OECD MC. The transfer or "delivery" of raw data, which is not protected under copyright law and not even considered to be property under private law, could fall under either article 7(1) (business profits) or article 13(5) (other property). In most cases, this kind of transaction will be categorized as the provision of services (e.g., data streaming) or the delivery of "digital goods", so the business-profits category is applicable. If, however, a pool of raw data is sold as part of an ongoing business (asset deal), it seems more appropriate to apply article 13(5) OECD MC.

The provision of big data analyses or "knowledge-based work results" to a customer in Germany will not trigger a tax liability under section 49 I ITA, so it is moot to ask whether the remuneration paid for it should be characterized as royalty income under article 12(2) OECD MC or payments for technical services under article 12(4) of the tax treaty with India. In a reverse situation, where a German taxpayer provides services of this kind to an Indian customer, Germany would take the position that the big data analysis should not be categorized as know-how under article 12(3) because it reports mere work results without conveying any special knowledge to the Indian customer. The analysis under article 12(4) of the treaty (technical services) is less straightforward and would probably depend on whether the big data analysis was prepared by the taxpayer's employees or was generated fully automatically. In the latter case, performance of the services arguably does not involve the taxpayer's personnel as would be required under article 12(4) of the treaty (provision of automated services that do not involve human intervention). It should be noted, however, that there are no decisions by German courts to support this distinction between "traditional" or "human" and fully automated services for the purposes of article 12.²¹ The provision of big data analyses that include the taxpayer's know-how about how to analyze data so that the customer would be able to reproduce the results, would clearly qualify as provision of know-how under article 12(3) OECD MC, leading to taxation at source if the applicable tax treaty provides for a taxing right.

While some of Germany's tax treaties contain special provisions for payments in connection with equipment leases (e.g., article 12(3)(b) of the treaty with the PRC), it is hard to imagine a situation in which they could apply to transactions involving data due to the "intangible" nature of these transactions.

²⁰ BMF, 17 December 2019, BStBl. I 2020, 84.

²¹ India at least seems to take the position that fully automated services cannot be categorized as technical services; Kamath, TNI 2012 (Vol. 68), 349.

Reference case studies

Broker Co's income from selling the data sets (reference case study #1) would be characterized as business profits under article 7(1) OECD MC. The same is true for Website Co's income.

In reference case study #2, the German tax authorities would likely treat Animal Data Co's income as royalties under article 12 OECD MC. However, it could also be argued that Animal Data Co charges its customers a services fee, which cannot be taxed in Germany under article 7(1) OECD MC. In any event, the fees would not be characterized as payments for know-how, use of equipment or technical services.

Services Co's income from automated services (reference case study #3) would be characterized as business profits under article 7(1) OECD MC.

Consultant Co's income from consultancy services and the user fees generated by its database (reference case study #4) would be characterized as business profits under article 7(1) OECD MC. However, if article 12 of the applicable tax treaty provides for a right to tax payments for consultancy services, some part of Consultant Co's income can be taxed in the contracting state where the payments arise.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

There appears to be a consensus in the literature that the DEMPE concept should be applied to analyze big data transactions for transfer pricing purposes.²² This is appropriate because data can be an intangible even in cases where it is not protected under copyright law or classified as property under private law.²³ While almost all businesses use data in some form, substantial transfer pricing issues will likely come up with data-centric business models.

Some practitioners have argued that collection of data could be treated as a routine function of an associated enterprise, whereas the associated enterprise that aggregates or processes the data into a database should be entitled to residual profits.²⁴ If there is a third associated enterprise that monetizes the data, this enterprise too should be treated as a principal for the big data business of the group.²⁵ No official guidance has been published by the German tax authorities on this issue, but high-ranking members of the federal tax administration have indicated that they do not agree with this analysis.²⁶ In their view, an enterprise that collects data and then transfers it to another enterprise within the group should receive compensation that reflects its value (as opposed to merely being compensated for the performance of collection services to the transferee). If it is not possible to determine the value of the data that was transferred within the group because it qualifies as a unique intangible for which there are no comparables available, these members of the federal tax administration would require all three associated enterprises to determine their

²² Schwarz/Stein, DB 2017, 1525 (1528); Cloer/Postler, FR 2020, 486 (494); Kristl, Ubg 2018, 481 (484).

²³ Kristl, Ubg 2020, 706 (714).

²⁴ Schwarz/Stein, DB 2017, 1525 (1528); Cloer/Postler, FR 2020, 486 (494).

²⁵ Schwarz/Stein, DB 2017, 1525 (1528).

²⁶ Greil/Fehling, IStR 2017, 757 (762).

respective incomes under the residual profit split method, as suggested by the OECD for unique contributions to the creation of an intangible.²⁷

In my view, it does not make much sense to allocate residual profits to an associated enterprise that collects non-personal data for other members of a corporate group such as generic weather data even if the data is essential for the business model.²⁸ The mere collection of data does not result in the creation of anything new or unique.²⁹ It would also not be appropriate to treat single points of data as intangibles for transfer pricing purposes.³⁰ What is more, companies have a tendency to overstate the value of “their” data when they communicate business expectations and hopes to investors, claiming that they will figure out a way to monetize the data later. Tax administrations should be aware of this fact and keep in mind that income tax is levied on current profits.

The collection of personal data is different in that it requires the affected person's consent and will trigger a large fine under the GDPR if the controller did not bother to obtain consent properly. So, arguably an associated enterprise that collects personal data acting in its own name bears specific risks that go beyond the performance of routine services for other members of the group.³¹ On the other hand, it is also conceivable that an associated enterprise contractually assumes all risks of the other associated enterprise that has the role of controller vis-à-vis the users.³² There are also cases in which two associated enterprises have joint controllership with respect to personal data.³³ So the outcome of the analysis would depend on the facts and circumstances of each case, taking into account the risks assumed and functions performed by the enterprises involved in the transaction.³⁴ As a result, it cannot be assumed that the transactional profit split method is the standard method for the collection and preparation of personal data.³⁵ Apart from the risks associated with complying with the GDPR, a pool of consent statements obtained from many individuals may be seen as a self-created intangible at the level of the data collecting enterprise, which would entitle it to receive a share of residual profits.³⁶ But again, there is no guidance yet and it remains to be seen how the courts will resolve this contested issue and other transfer pricing issues raised by the reference case studies.³⁷

²⁷ Greil/Fehling, IStR 2017, 757 (762).

²⁸ This seems to be consistent with the position taken by German companies which were sampled by Oestreicher/Muntermann/Schwager, ifst-Schrift 537 (2020), 67.

²⁹ Schmalenbach-Gesellschaft Transfer Pricing Group, European Taxation, 2020, 489 (493). Data mining, by contrast, is a way to transform data into knowledge and can be considered as a value creating activity.

³⁰ Schmalenbach-Gesellschaft Transfer Pricing Group, European Taxation, 2020, 489 (492). By contrast, a (raw) data set may qualify as an intangible for transfer pricing purposes. But it would still be very difficult to determine its value.

³¹ For a more detailed analysis of such a scenario see Schmalenbach-Gesellschaft Transfer Pricing Group, European Taxation, 2020, 489 (496).

³² For example, a full-fledged distributor owning the customer base pays a fee to an associated enterprise that provides marketing services to the distributor and collects additional customer data acting in its own name but on behalf of the distributor.

³³ Kristl, Ubg 2020, 72 (75).

³⁴ Schmalenbach-Gesellschaft Transfer Pricing Group, European Taxation, 2020, 489 (496).

³⁵ Schmalenbach-Gesellschaft Transfer Pricing Group, European Taxation, 2020, 489 (497).

³⁶ For a more detailed analysis of such a scenario see Schmalenbach-Gesellschaft Transfer Pricing Group, European Taxation, 2020, 489 (497).

³⁷ For a detailed analysis of the potential pricing implications of an intragroup transfer of an analytically processed database see Schmalenbach-Gesellschaft Transfer Pricing Group, European Taxation, 2020, 489 (497).

Two recent scholarly studies analyze the TP implications of data transactions in a broader context of value creation.³⁸ While there are still many unresolved issues, the authors reach some noteworthy conclusions:

- It is very difficult to tie income from data transactions to a geographical location.³⁹
- Raw data as such has only little value because monetization requires the data to be processed first. As a result, there is virtually no value creation in the country of residence of users.⁴⁰
- Data from clinical trials is different in that it is considered to be quite valuable within the pharmaceutical industry. However, value creation is attributable to the companies that generate the data and not to the patients.⁴¹
- Traditional TP methods can also be applied to digital transactions, but there should be a re-evaluation of the transactional profit split method.⁴²
- Profit splits should not be based on sales but on R&D expenses.⁴³

Part Four: Special regimes

4.1. General overview

German policymakers are rather reluctant to introduce special tax regimes. New taxes that target certain industries can easily result in unlawful discrimination of these taxpayers, and tax preferences invariably strain the budget. However, a strong consensus has emerged in Germany that the government should do more to incentivize technological progress in order to defend Germany's position as an international leader in (industrial) technology. The following special regimes are relevant to the development and sale of big data enabled goods or services.

4.2. DST

Germany had politically supported the Commission's push for introduction of an EU-wide digital services tax (DST). However, these efforts failed in 2019 when it became clear that EU member countries could not reach a unanimous decision on the DST as would be required under articles 114(2) and 115 TFEU. There are currently no plans to introduce a DST in Germany as a unilateral measure. In addition, such a unilateral tax would likely require an amendment to article 115 of the German constitution as there is currently no constitutional framework for the allocation of DST revenues among state governments and the federal government.⁴⁴

³⁸ Heidecke et al., ifst-Schrift 536 (2020); Oestreicher/Muntermann/Schwager, ifst-Schrift 537 (2020).

³⁹ Oestreicher/Muntermann/Schwager, ifst-Schrift 537 (2020), 67.

⁴⁰ Oestreicher/Muntermann/Schwager, ifst-Schrift 537 (2020), 68.

⁴¹ Oestreicher/Muntermann/Schwager/Companies, ifst-Schrift 537 (2020), 68.

⁴² Oestreicher/Muntermann/Schwager, ifst-Schrift 537 (2020), 106.

⁴³ Oestreicher/Muntermann/Schwager, ifst-Schrift 537 (2020), 135.

⁴⁴ Valta, IStR 2018, 765 (770).

4.3. Incentives

The German government opposes patent boxes of all kinds and was one of the leading forces behind BEPS Action 5. However, it also realized that some input-oriented tax preferences should be granted to stimulate investment. As a result, Germany introduced a research tax credit on 1 January 2020 (RTCA – Forschungszulagengesetz). Under section 2(1) RTCA, a tax credit is granted for wage expenses for eligible research and/or development projects including “industrial research” and “experimental development”. As the tax credit is designed to facilitate research and early stage development activities only, it does not include wage expenses for product-specific development activities and commercial exploitation of development results. The tax credit amount is 25 percent of eligible wage expenses but cannot exceed one million euros per project (section 4(1) RTCA). It is possible to claim research tax credits for several projects at the same time, which enables a taxpayer to multiply the benefits of the new incentive. However, the total sum of research tax credits and other forms of government subsidies granted to a taxpayer must not exceed EUR 15 million per year (section 4(2) RTCA).

Based on the broad language of section 2(1) RTCA (“industrial research and experimental development”) that includes any activities by a business to develop new commercial services or methods,⁴⁵ at least the first stages of research and development of data-based business models or products should qualify for the tax credit. However, the subsidy will cease once the taxpayer has created the new product or service and makes it ready for distribution. Wage expenses for the improvement of an existing product do not qualify for the subsidy either (section 2(2) RTCA). The input-based approach of the research tax credit and the overall limitation of the subsidy make sure that the taxpayer will not be able to obtain preferential treatment for any income derived from selling the new product or service to customers. This is in stark contrast to output-based R&D incentives offered by other countries such as the Irish Knowledge Development Box (KDB) or the revised Dutch Innovation Box.

4.4. Barter treatment

The issue of barter transactions involving user data has come up in Germany. The discussion was started by two members of the tax authorities who – not acting in their official capacities – published two articles in 2015 claiming that advertising business models such as internet search engines and social media platforms are not free of charge for the users but, rather, are based on barter transactions between the platform operator and internet users.⁴⁶ In their view, there is a taxable supply of services within the meaning of section 1(1) VAT Act, and they suggest that the tax base should be determined by looking at the expenses the platform operator incurs for obtaining consent from each user (“subjective value”).⁴⁷ The same argument was put forward by the local tax office in a recent court case which was decided by the Federal Tax Court on 16 January 2020.⁴⁸ However, the court was able to dodge the contested barter issue based on the specific facts of the case. The court analyzed the

⁴⁵ Blümich/Riehl FZuLG § 2 notes 2-5.

⁴⁶ Melan/Wecke, DStR 2015, 2267 and 2811.

⁴⁷ Melan/Wecke, DStR 2015, 2811 (2815).

⁴⁸ BFH, DStR 2020, 713.

taxpayer's terms of service and found that even though obtaining user data clearly was one of the taxpayer's motives for offering the services, there was no language in the terms of service that would have created a contractual link between a user's permission to use the data and the supply of services by the taxpayer to this user. The lack of specific contractual provisions on personal data can be explained by the fact that the case dates back to 2008 when businesses used much simpler terms of service and did not have to comply with the GDPR. Today's environment is entirely different, also taking into account that supply of services to a consumer is treated as a barter transaction under private law if the consumer has to consent to the processing of his data if he wants to receive the service "for free". It remains to be seen how the tax courts will decide similar cases that involve more up-to-date terms of service. Finally, it should be mentioned that the German Ministry of Finance also submitted several questions to the EU VAT Committee under article 398 VAT Directive aiming to clarify the application of the VAT Directive to possible barter transactions between platform operators and internet users. While the EU VAT Committee laid down some useful guidelines on 3 November 2018,⁴⁹ the German tax authorities do not feel bound by these guidelines as the EU VAT Committee has a strictly advisory function.⁵⁰ It is likely that there will be more cases in the future and that the controversy will ultimately come before the ECJ.

As of now, there have not been any similar attempts by the German tax authorities to levy income tax on purported barter transactions between internet companies and users.⁵¹ One possible reason is the lack of potential tax revenue. Unlike VAT, which is a tax on consumption and may well apply to "free" services provided to and consumed by internet users, income tax is based on the ability-to-pay principle and requires an accession to the taxpayer's wealth which was realized in a market transaction (realization principle). Firstly, it is doubtful how there could be an accession to a taxpayer's wealth if he provides services for free. Secondly, any income realized on the exchange of services for user data would immediately create a corresponding deduction as the data is acquired for the taxpayer's business and either expensed immediately as a self-created intangible asset or held as inventory resulting in a deduction at the time of the sale of the data. It is also obvious that an income tax base will arise only in cases where the taxpayer has found a way to monetize the data by means of a subsequent transaction that involves the payment of money.

Reference case studies

In reference case study #2, NGO Animal Data Co is engaged in two separate B2B barter transactions with Information Site Co that would become subject to income tax and be treated as a taxable supply of services for VAT purposes: grant of a license to Information Site Co to commercially exploit Animal Data Co's database in exchange for (i) advertising services provided by Information Site Co to Animal Data Co (referral of users to Animal Data Co's website) and (ii) supply of user data to Animal Data Co.

⁴⁹ UR 2019, 575.

⁵⁰ BMF, 4 January 2014, BStBl. I 2014, 67.

⁵¹ However, the Federal Ministry of Finance recently circulated draft regulations on the income tax treatment of cryptocurrency transactions in which it seems to take the position that the provision of personal data by an individual taxpayer in exchange for virtual currency tokens or airdrops is a barter transaction that may give rise to taxable income in the amount of the fair market value of the token under s. 22 ITA (other income).

Part Five: Indirect tax

Apart from the contentious issue of barter transactions involving user data, the VAT treatment of data transactions is mostly clear: Electronic transfers of raw data as well as transfers of aggregated or structured data will be categorized as a supply of services under section 3(9) VAT Act. The same is true for a grant of usage rights with respect to a copyright in a database. The supply of big data analyses is also a supply of services. In rare cases, where the raw data or structured data is stored on a physical disk, which is transferred to the customer who is the end user of the data, the German tax authorities might take the position that the transaction should be treated as a supply of goods under section 3(1) VAT Act instead. This would be in line with the VAT treatment of sales of standardized software that is stored on physical media and sold to end users. Transactions involving physical storage media are similar to the sale of books and are treated as a supply of goods regardless of the “intangible nature” of the information stored on the media.⁵²

As a rule, the supply of services is taxable where the customer resides (destination principle). This applies to B2B transactions (section 3a(2) VAT Act) as well as to B2C transactions that are electronically supplied services or “ESS” (section 3a(5) VAT Act). Novel virtual currencies such as bitcoin that are based on encrypted entries in a database (“blockchain”) may also involve the creation and transfer of data. However, bitcoin is treated as a means of payment under article 135e VAT Directive so that a transfer of bitcoins (or currency tokens) to another person does not result in a taxable transaction for the transferor.⁵³ If a taxpayer, e.g. a bank, sells bitcoins to its customers and charges a small fee for exchanging euros into bitcoins, there is a supply of services by the bank to the customer, but the fee (“spread”) is tax-exempt under article 135e VAT Directive.

Part Six: Tax accounting

6.1. Recognition of transactions

Under German tax accounting rules, neither the collection of raw data nor the processing of raw data into structured data or into a database protected by copyright will create taxable income even if the data has a certain value and could be sold at any time. Income will arise only once the taxpayer monetizes the data through a market transaction such as providing advertising services to customers or selling the data on the market. The transfer of data for consideration will create taxable income once the taxpayer has fulfilled his obligations to the buyer, e.g. conveyance of data to the buyer or transfer of ownership in the storage media to the buyer. Income from data-related services such as provision of big data analyses is realized once the taxpayer has fulfilled his obligations towards the customer (e.g., delivery of the work results). Income from subscriptions is realized at the end of each billing period. If the customer is required to pay fees in advance, profit will be realized at the end of the billing period or per rata temporis.

⁵² S. 3.5(2) Umsatzsteueranwendungserlass.

⁵³ BMF, 27 February 2018, BStBl. I 2018, 1402.

6.2. Capitalization and amortization

Under section 5(2) ITA, costs incurred by the taxpayer in creating intangible assets such as pools of raw data, structured data and databases that are not held as inventory, must be immediately expensed even if the taxpayer elected to capitalize these expenses under section 248(2) CC (tax accounting supersedes financial accounting). Acquisition costs for data or databases must be capitalized and amortized over the useful life of the intangible asset using the straight line method under section 7(1) ITA. Maintenance costs for databases and analytical tools are currently deductible, regardless of whether the intangible asset is self-created by the taxpayer or was acquired from another person.

Summary and conclusions

The 21st century is known as “the information age” and its digital revolution has permeated India as well. With nearly 450 million Internet users and a growth rate of 7-8%, India is well on the path to becoming a digital economy, which has a large market for global players. At the same time, the unregulated and arbitrary use of data, especially personal data, has raised concerns regarding the privacy and autonomy of an individual. This was also the subject matter of the landmark judgment of the Supreme Court, which recognized the right to privacy as a fundamental right. Following this, Justice B. N. Srikrishna committee was entrusted with the responsibility of identifying lapses in the present data protection regulations and preparing more robust and comprehensive data protection laws. Based on this committee report and responses from stakeholders, a revised Personal Data Protection Bill, 2019 (Draft Bill), has been cleared by the Union Cabinet on 4 December 2019, which was examined by the Joint Parliament Committee which gave its report in December 2021, and is pending enactment.

The tax implications of data in India have been analysed in detail in the paper. Summarised these are:

- (i) If the non-resident has stored the data on the server in India whether owned or otherwise at its disposal, it could create its permanent establishment.
- (ii) India has introduced the concept of significant economic presence in its domestic legislation widening the source based taxation based on business connection. The SEP can be created based on transaction in goods, service or property in India (including downloading of data or software) or through systematic and continuous soliciting of business activities or engaging in interaction with Indian users, above a threshold. This would come into effect from Financial Year 2021-22. It would generally not have any effect in treaty situations.
- (iii) India has also widened the scope of income attributable (and hence taxable) to operations in India by including targeted advertisement, sale of Indian data and sale of goods or services using Indian data. This has already come into force from the financial year 2020-21.
- (iv) Transfer of all or any right in data could also result in its taxation as royalty in India. Data could represent Industrial, Commercial or Scientific information, information concerning the working or use of patent, invention etc, or it could represent right in copyright. Under Indian domestic law customized electronic data is included in the definition of computer software. Whether use of computer software amounts to use

¹ Officer of Indian Revenue Service who has worked in tax administrations of India and Papua New Guinea. He is currently Joint Secretary Tax Policy with Indian Ministry of Finance.

² Partner of N M K & Co LLP, Chartered Accountants.

of right in copyright (hence royalty) or use of copyrighted article (hence not royalty) was an issue before the Indian apex court³ as different High courts have given different judgments. With respect to access to data base or furnishing of report based on data access, Indian courts have held it as royalty where the information is not public and have held it as not royalty if it is publicly available information. Under the treaty, the definition of royalty could be narrower.

- (v) The source rule of taxation is payment based. Payment made by the government is sourced in India. Payment made by a resident is sourced in India unless it is for business or profession outside India or for earning income from source outside India. Payment made by a non-resident is sourced in India only when it is for business or profession in India or for earning income from source in India.
- (vi) There could also be an issue of taxation of payment for use of data as Fees for Technical Services (FTS). The Indian apex court has made an important distinction between a facility and service. The presence of human element in rendering of service is held to be no longer relevant. A standard facility has been held to be not in the nature of FTS. Most of the Indian tax treaties contain an article on FTS giving source country the limited right to tax FTS on gross basis unless effectively connected with a PE. In most cases the definition of FTS is the same as in domestic law. However, some of the Indian treaties also contain a requirement of “make available”. In those treaties the scope of FTS is narrower, as in addition the test of “make available” is required to be satisfied.
- (vii) The provisions of transfer pricing would come into play if there are transactions between two Associated Enterprises (Aes). The Indian TP regime is generally modelled on internationally accepted norms laid down in OECD/UN guidelines.
- (viii) India has also introduced the Equalisation Levy (EL) and it applies at the rate of 6% on online advertisements (from April 2016) and 2% on online supply of goods or services (from April 2020). The 2020 EL also covers transactions between two non-residents, if for targeted Indian advertisements and for sale of Indian data.
- (ix) India provides tax incentives to start ups and also taxes barter transactions.
- (x) Under the GST law, there is a specific provision for inclusion of barter within the definition of supplies liable to GST. The outward supply of data will be taxed, as the inward supply of services will also be taxed, the latter on a reverse charge basis. One of the items liable to GST, is Online Information Database Access and Retrieval services (OIDAR) a category of services provided through the medium of internet and received by the recipient online without having any physical interface with the supplier of such services. This covers all types of data accessed by the users.
- (xi) In order for a database to be treated as Intangible asset in accounts, the entity owning the same should comply with the recognition criterion laid down in the relevant Accounting Standards on Intangible Assets (AS-26, Ind-AS 38). These standards require the entity to consider certain recognition criteria before capitalizing such as identifiability, measurability of cost, control over a resource and expectation of future economic benefits flowing to the enterprise etc. There are rules for revenue recognition on monetizing the same.

³ The Supreme Court has in Civil Appeal Nos 8733-8734 of 2018 decided on March 2, 2021 held that, unless an interest in all or any of the rights contained in section 14(b), read with section 14(a), of the Indian Copyright Act is transferred through a license, it would not amount to use of right in copyright and hence it cannot be characterised as royalty. Income-tax Department has filed a review petition before the Supreme Court

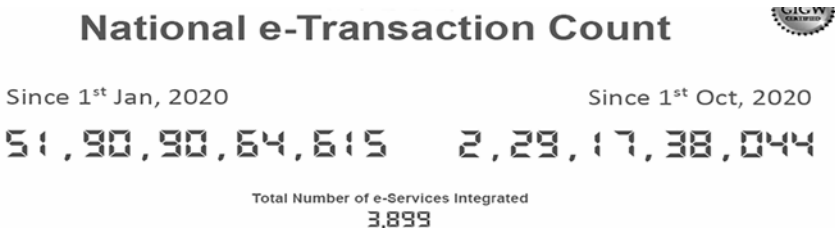
1. Introduction: Legal background

1.1 The 21st century has witnessed such an explosive rise in the number of ways in which we use information, that it is widely referred to as “the information age”. This digital revolution has permeated India as well. Recognizing its significance, and that it promises to bring large disruptions in almost all sectors of society, the government of India has envisaged and implemented the “Digital India” initiative

With nearly 450 million Internet users and a growth rate of 7-8%, India is well on the path to becoming a digital economy, which has a large market for global players. While the transition to a digital economy is underway, the processing of personal data has already become omnipresent. The reality of the digital environment today, is that almost every single activity undertaken by an individual involves some sort of data transaction or the other.

1.2 Government online services are also generating enormous data.

The volume of e-Transactions in India is growing phenomenally, as will be clear from the following.⁴



NATIONAL E TRANSACTION COUNT	
NUMBER OF E SERVICES INTEGRATED	4013
SINCE 1ST JANUARY 2021	SINCE 1ST JANUARY 2022
[TILL 8TH JANUARY 2022]	
105,265,014,789	924,681,520

While data can be put to beneficial use, the unregulated and arbitrary use of data, especially personal data, has raised concerns regarding the privacy and autonomy of an individual. This was also the subject matter of the landmark judgement of the Supreme Court,⁵ which recognized the right to privacy as a fundamental right.

⁴ <http://etaal.gov.in/> accessed on 8 January 2022

⁵ K.S. Puttaswamy v. Union of India, (2015), 8 SCC 735.

1.3 Instrumentally, a firm legal framework for data protection will:

1. Keep personal data of citizens secure and protected;
2. Act as a foundation on which data driven innovation and entrepreneurship can flourish.

1.4 In this background, amendments are being made to the Information Technology Act 2008, Section 43 which provides as:

Where a body corporate, possessing, dealing or handling any sensitive personal data or information in a computer resource which it owns, controls or operates, is negligent in implementing and maintaining reasonable security practices and procedures and thereby causes wrongful loss or wrongful gain to any person, such body corporate shall be liable to pay damages by way of compensation, to the person so affected.

1.5 The scope of the same is being expanded to provide for a comprehensive data protection framework which shall apply to processing of personal data by any means and to processing activities carried out by both the government and private entities.

1.6 Data protection law: In July 2017, the Ministry of Electronics and Information Technology (MeitY), the government of India (GoI), constituted a committee of experts under the chairmanship of the retired Supreme Court Judge Justice B. N. Srikrishna. The committee was entrusted with the responsibility of identifying lapses in the present data protection regulations and preparing more robust and comprehensive data protection laws. After working for nearly a year, the committee submitted the draft Personal Data Protection (PDP) Bill 2018, in July 2018. Based on responses from stakeholders, a revised Personal Data Protection Bill, 2019 (Draft Bill), was cleared by the Union Cabinet on 4 December 2019.

1.7 The key changes/highlights of the Draft Bill are as follows:

Definitions:

The definition of 'sensitive personal data', as laid out in section 2(36) of the Draft Bill, does not include the term 'passwords' anymore.

Sensitive personal data is now defined as such personal data which may, reveal, be related to, or constitute:

- financial data
- health data
- official identifier
- sex life
- sexual orientation
- biometric data
- genetic data
- transgender status
- intersex status
- caste or tribe
- religious or political belief or affiliation, or
- any other data categorised as sensitive personal data by the authority and the sectoral regulator concerned.

1.8 The bill seeks to provide for the following:

1. Prohibition of processing of personal data
2. Restriction on retention of personal data
3. Grounds for processing of personal data without consent in certain cases
4. Processing of personal data for other reasonable purposes
5. Right to correction and erasure
6. Privacy by design policy
7. Transparency in processing of personal data
8. Classification of data fiduciaries as significant data fiduciaries
9. Mandatory appointment of data protection officer by every significant data fiduciary
10. Prohibition on processing of sensitive personal data and critical personal data outside India:

1.9 The new provisions state that:

- sensitive personal data may be transferred outside India, subject to conditions for transfer of sensitive personal data and critical personal data, but shall continue to be stored within India
- critical personal data (the definition of which is to be notified by the central government) can only be processed in India

1.10 The Draft Bill is another step taken by the government in its initiative towards implementing data privacy laws in India. The said Draft Bill has been referred to by a joint selection committee of parliament for further review which gave its report⁶ in December 2021 with several changes suggested and the bill is expected to be tabled for approval soon.

1.11 Pending enactment of the new law, in April 2018, the Reserve Bank of India (RBI) did actually move the needle quite a bit in this regard – first through a press release on 5 April and then a Notification under the Payment and Settlement Systems Act of 2017 ('PSS' Act) dated 6 April 2018.⁷ With these documents, the RBI has introduced a local storage requirement for payment data in India. This requires all 'payment system operators' to ensure that data related to payment systems operated by them are stored inside India within a period of six months. Meanwhile, by issuing notifications under section 69A of the Information Technology Act, the Indian government has banned several Chinese apps, including popular games and video platforms, citing national sovereignty and data security concerns.

⁶ http://loksabhapn.nic.in/Committee/CommitteeInformation.aspx?comm_code=73&tab=1 accessed on 8 January 2022

⁷ Letter No. RBI/2017-18/153 DPSS.CO.OD No. 2785/06.08.005/2017-2018 dated 6 April 2018 issued by the Department of Payment and Settlement Systems, Reserve Bank of India.

2. Part One: Basic principles: Character, source and nexus

2.1 Tax effect on data

Data storage in India – Does it create a Permanent Establishment (PE)?

Going by the OECD Commentary, if the server of the non-resident is present in a state, it would give rise to a PE in the state where it is located. Accordingly, if the data is hosted on a server in India, it would expose the business to taxation under the domestic tax law of India, as also under the treaties with most countries. In a few cases, a non-resident does not own a server for parking the data in India, but stores the data by leasing a server from a local company, which would have leased it to other companies as well. Although ownership of a server is not a relevant factor for deciding existence of a PE, there could be a situation where the same server is leased by many other companies and no specific space is at the disposal of the company. In such a situation such a leased server could be argued to not create a PE in India for failing to pass the disposal test. However, based on facts if the server is at the disposal of the non-resident, it could create a PE of that non-resident. In this backdrop, the concept of Significant Economic Presence as an alternative to the concept of business connection under domestic law has recently been introduced.

A: Significant Economic Presence

2.2 India has introduced a concept of “Significant Economic Presence” (SEP) in its taxing law (the Income tax Act, 1961) by widening the definition of business connection, for the purpose of deeming income of a non-resident to accrue or arise (and therefore taxable) in India. The provision was introduced effective 2019 but was postponed. The same has been made effective with effect from the financial year 2021-22. An Explanation bearing No 2A has been inserted to expand the scope of business connection covered in section 9(1)(i). This Explanation reads as under –

Explanation 2A.—For the removal of doubts, it is hereby declared that the significant economic presence of a non-resident in India shall constitute «business connection» in India and «significant economic presence» for this purpose, shall mean—

- (a) *transaction in respect of any goods, services or property carried out by a non-resident with any person in India including provision of download of data or software in India, if the aggregate of payments arising from such transaction or transactions during the previous year exceeds such amount as may be prescribed; or*
- (b) *systematic and continuous soliciting of business activities or engaging in interaction with such number of users in India, as may be prescribed:*

Provided *that the transactions or activities shall constitute significant economic presence in India, whether or not—*

- (i) *the agreement for such transactions or activities is entered in India; or*
- (ii) *the non-resident has a residence or place of business in India; or*
- (iii) *the non-resident renders services in India:*

Provided further *that only so much of income as is attributable to the transactions or activities referred to in clause (a) or clause (b) shall be deemed to accrue or arise in India.*

A further Explanation, bearing Number 3A, has also been inserted with effect from the Financial year 20-21, which seeks to define the scope of, inter alia, such income as:

Explanation 3A.— For the removal of doubts, it is hereby declared that the income attributable to the operations carried out in India, as referred to in Explanation 1, shall include income from—

- (i) such advertisement which targets a customer who resides in India or a customer who accesses the advertisement through internet protocol address located in India;*
- (ii) sale of data collected from a person who resides in India or from a person who uses internet protocol address located in India; and*
- (iii) sale of goods or services using data collected from a person who resides in India or from a person who uses internet protocol address located in India.*

2.3 The above amendments have two effects. With effect from 1 April 2020, income attributable to operations carried out in India would also include income from targeted advertisement and sale of data even though such activities may have happened outside India. Further, effective from 1 April 2021, India will deem income earned from download of data or software, and also from income from systematic and continuous soliciting of business activities or engaging in user interactions, as taxable in India. The reference to data here is open ended, i.e., would include all data, whether raw, aggregated or analytical. Amendment relating to significant economic presence is subject to a threshold test which has still not been prescribed.

2.4 Prior to the introduction of SEP, in the case of business income, only income which could be attributed to operations carried out in India was deemed to accrue or arise in India. Under the SEP, the source rule has been substantially expanded. Now the source will cover data of Indian residents, or from persons using Indian IP address as discussed above. As such, the new rule will also include some transactions between two non-residents as well. It may be clarified that SEP is part of Indian domestic law and hence subject to provisions of DTAA's that India has entered into with other countries. Unless under the DTAA the scope of PE is expanded to include the above activities, the above amendments would have limited impact in tax treaty situations.

B: Royalty

2.5 Even prior to this amendment, certain data was treated as forming part of royalty and was deemed to accrue or arise in India. This was due to the definition of royalty, which inter alia included:⁸

- the transfer of all or any rights (including the granting of a license) in respect of a patent, invention, model design, secret formula or process or trademark or similar property;
- the imparting of any information concerning the working of, or the use of, a patent, invention, model, design, secret formula or process or trademark or similar property;
- the imparting of any information concerning technical, industrial, commercial or scientific knowledge, experience or skill;
- the transfer of all or any rights (including the granting of a license) in respect of any

⁸ Explanation 2 under s. 9(1)(vi) of ITA.

copyright, literary, artistic or scientific work including films or video tapes for use in connection with television or tapes for use in connection with radio broadcasting but not including consideration for the sale, distribution or exhibition of cinematographic films.

2.6 As such, the data which was converted to form “information” of the type referred to above, whether copyrighted or not, was deemed to be royalty, and hence taxable in India, subject to the source being in India. Further, “customized electronic data” could also be treated as part of computer software in view of Explanation 3 under section 9(1)(vi). Further, Explanation 4 mandates that transfer of all or any rights including right to use computer software is to be treated as transfer of all or any rights in respect of any right, property or information, and hence be treated as royalty. Explanation 4 was inserted in 2012 with retrospective effect from 1976. The said explanations read as follows:

Explanation 3.—For the purposes of this clause, “computer software” means any computer programme recorded on any disc, tape, perforated media or other information storage device and includes any such programme or any customized electronic data.

Explanation 4.—For the removal of doubts, it is hereby clarified that the transfer of all or any rights in respect of any right, property or information includes and has always included transfer of all or any right for use or right to use a computer software (including granting of a license) irrespective of the medium through which such right is transferred.

2.7 Prior to these amendments, there have been many rulings/judgments in India which have discussed whether access to data base or furnishing of report based on data access would amount to royalty on account of use of copyright or on account of imparting of any information. The key distinguishing points of these rulings/judgments are as to whether the information is publicly available or not.

2.8 In the case of FactSet Research Systems Inc (317 ITR 169) the Authority of Advance Ruling (AAR) held that subscription fees paid by Indian subscribers to FactSet to access the financial and economic information of various companies worldwide (being the data available on the public domain) do not qualify as payments received for information concerning industrial, commercial or scientific knowledge, experience of skill as the information is already available in the public domain. Similarly, in the case of Kinsey Knowledge Centre India Private Limited (TS-288-ITAT-2017[Del]) Delhi ITAT held that the database provided by Thomson to the assessee is a compilation of general information, relating to the share market which is neither relating to Thomson's own experience nor is it secret or divulged information, and the payments were for merely accessing the database. Similarly, in the case of Dun & Bradstreet Espana S.A. (272 ITR 99, AAR), the AAR held that purchase of standardized business information reports (BIR) publicly available on the internet upon payment of subscription charges, are akin to payment for copyrighted article and do not constitute royalties.

2.9 On the other hand, in the case of CIT v. Wipro Limited [(2011) 203 Taxman 621 (Kar.)] the Karnataka High Court held that payment for subscription to Gartner online data base was payment for license to use copyright as right to access would amount to transfer of right to use the copyright held by M/s Gartner in that database. Hence, payment to Gartner

is for the license to use the said database maintained by Gartner and such payment has been held to be treated as royalty. Mumbai ITAT followed this judgment of Karnataka High court in various cases of Garner Ireland Limited before it for different assessment years. In a judgment of ITAT Mumbai dated 7 November 2017 in ITA No 195/Mum/2016 it was again held that payment for subscription to Gartner data base amounts to royalty. While applying the ratio of the Karnataka High Court in the Wipro case, ITAT Mumbai also made an important distinction that in the Dun and Bradstreet case (*supra*) only publicly available information was there and hence the facts are different. Further, in the case of ThoughtBuzz Pvt. Ltd. vs DIT(Chennai) [AAR No. 1036 of 2010 dated 07.05.2012] the AAR held that the report contains confidential information which is not in public domain and use of that information amounts to use of commercial experience of the applicant and hence royalty.

2.10 The source rule for taxation as royalties is generally payment based. If the payments are made by the government, it is always sourced in India. When the payment is made by an Indian resident it is also sourced in India except when the royalty is payable in respect of any right, property or information used or services utilized for the purpose of a business or profession carried on by such person outside India or for the purpose of making or earning any income from any source outside India. When the payment is made by a non-resident it would be sourced in India only when the royalty is payable in respect of any right, property or information used or services utilized for the purpose of a business or profession carried on by such person in India or for the purposes of making or earning any income from any source in India.

2.11 In addition, in the context of analytical data, whether the same can be treated as computer software there have been a series of judicial pronouncements and amendments including retrospective amendments. There have been lot of judicial rulings on whether the payment for use of software is in the nature of royalty or not. The Karnataka and Madras High courts have ruled that it amounts to royalty while other High courts have ruled that it does not amount to royalty. There are AAR rulings which have also held that use of software amounts to royalty. The matter was before the Supreme Court, which has decided the matter in favour of the taxpayer.⁹ The retrospective amendments deeming such payments to be royalties [Explanations 3 and 4 to section 9(1)(vi) already discussed earlier] made to the ITA have also been held to be not clarificatory, but as expanding the scope and hence impossible of compliance by the taxpayer. Besides, the treaty's supremacy over the ITA has been reaffirmed and it is held that if the definition under the DTAA is narrower, the same shall prevail over the broad definition contained in the ITA. In this judgement, the Supreme Court has held that unless an interest in all or any of the rights contained in section 14(b), read with section 14(a), of the Indian Copyright Act is transferred through a license, it would not amount to use of right in copyright and hence it cannot be characterised as royalty. Income-tax Department has filed a review petition before the Supreme Court.

⁹ Engineering Analysis Centre of Excellence (P) Ltd. v. Commissioner of Income Tax (Civil Appeal Nos. 8733-8734 of 2018) and a bunch of 100+ other appeals vide order dated 2 March 2021

C: Fees for Technical Services (FTS)

2.12 Another aspect to be examined is whether the payment could be classified as “Fees for Technical Services” which are defined to mean managerial, technical or consultancy services. In the case of CIT v Bharti Cellular Ltd (2011) 330 ITR 0239 the Indian Supreme Court had held that human intervention is necessary for a service to qualify as FTS. However, in a later judgment in the case of CIT v Kotak Securities Ltd (2016) 383 ITR 1, the Indian Supreme Court clarified that human intervention is not the deciding criterion. The Supreme Court observed that human involvement is required for services to be characterized as technical services. However, considering that modern day scientific and technological developments may tend to blur the specific human element, a search for a more effective basis for evaluating whether services rendered are technical in nature, needs to be made. The term “technical services” indicates the seeking of specific services to cater to the special needs of the consumer and making them available by the service provider. This is an essential element of the expression “technical services”. Such services are distinguishable from services provided from a “facility”. Technical services involve services which are special and exclusive to the service recipient and are requested by the service recipient. On the other hand, services provided from a facility available to all and not specific to the service recipient, are not to be treated as FTS.

3. Part Two: Application of treaty principles

3.1 Typically, Indian treaties agree to tax income of non-residents to the extent that it is attributable to a permanent establishment of the non-resident in India. This is brought about by articles 5 and 7 of the treaties. The scope of income under the treaties has not yet undergone any change. Hence the amendments relating to significant economic presence and the corresponding profit attribution rule will have little impact on taxation of such business income till corresponding amendments are brought in treaties.

3.2 As regards royalties, these are governed by article 11 /12 of the treaties and the definitions in the treaties will prevail. In many cases, the definition in the treaties is narrower than in the domestic law, hence the scope will continue to be narrower in such cases. Payments by way of royalties are taxable in India even in the absence of any PE, subject to the source rule.

3.3 Most of the Indian tax treaties contain an article on FTS giving the source country the limited right to tax FTS on gross basis unless effectively connected with PE. In most cases the definition of FTS is the same as in domestic law and thus any FTS under domestic law would qualify to be FTS under the treaty. However, some of the Indian treaties also contain a requirement of “make available”. In those treaties the scope of FTS is narrower as in addition the test of “make available” is required to be satisfied.

4. Part Three: Transfer pricing

4.1 The Finance Act 2001, recognised that international transactions between Associated Enterprises (AEs) may not be subjected to the same market forces that shape relations between two independent firms, and therefore introduced a set of provisions in Chapter X of the Act under the title "Special Provisions relating to avoidance of tax". The statutory framework attempts to monitor transfer prices for goods, facilities and services in order to determine that they confirm to the "arm's length principle". Not only has section 92 of the Act been completely recast but new sections 92A to 92F have also been introduced to meet the desired objective of ensuring that the local tax base of a taxpayer is fair. The relevant provisions are contained in Chapter X (sections 92 to 92F) of the Act. The provisions contained in Chapter X of the Act are applicable to an international transaction entered into between two or more AEs, either or both of whom are non-residents.

4.2 International transaction covers transaction in the nature of purchase, sale or lease of tangible or intangible property or provision of services or lending or borrowing money or any other transaction having a bearing on the profits and income, losses or assets of such enterprises and includes a mutual agreement or arrangement between two or more AEs for the allocation or apportionment of, or any contribution to, any cost or expense incurred or to be incurred in connection with a benefit, service or facility provided or to be provided to any one or more of such enterprises. Further, the expression 'international transaction' has been clarified by the Finance Act 2012 with retrospective effect from 1 April 2002 to include a wide variety of arrangements.

4.3 As per section 92(3), these provisions are not intended to be applied in cases where the effect of application of these provisions reduces income chargeable to tax in India or increases the loss, as the case may be. When determining whether or not international transaction exist in the books of accounts or records of the Assessee, one also needs to consider the free of cost goods / services rendered / availed by the Assessee.

4.4 Section 92C(1) stipulates that the arm's length price is to be determined by adopting any one of the following methods, being the most appropriate method:

- Comparable Uncontrolled Price method
- Resale Price Method
- Cost Plus Method
- Profit Split Method
- Transactional Net Margin Method
- Other method as prescribed by the Board and provided in Rule 10AB.

4.5 Rule 10C(1) lays down the general guidelines in the selection of the most appropriate method. The Rule states that the method to be selected shall be the one best suited to the facts and circumstances of each international transaction or specified domestic transaction and that provides the most reliable measure of the arm's length price.

4.6 As regards transactions relating to data between AEs, it is possible that an Indian AE passes over data to its overseas AE either free or at a price. In both cases, the same will need to be tested if it is at an arm's length price or not. Being a new concept, the method to be selected for determining the arm's length price for sale / lease of data has not yet been

analysed either by the industry or the profession, or even the revenue authorities. It appears that either the profit split method (if all underlying data is available) or the Transactional Net Margin Method would be applied. For certain industries, safe harbor rules have been notified, but these do not cover transactions relating to data.

5. Part Four: Special regimes

5.1 Equalisation Levy / DST

The Equalisation Levy was introduced through the Finance Act 2016 at the rate of 6% on payments for online advertisements. The Finance Act 2020 has expanded the scope of the Equalisation Levy effective 1 April 2020. The expanded levy is at the rate of 2% of the consideration received or receivable by an e-commerce operator from e-commerce supply of goods or services made or provided or facilitated by it to an Indian resident, or to a non-resident in specified circumstances, or to a person who buys such goods or services or both using an IP address located in India. It has been clarified that if the non-resident has a permanent establishment in India and such e-commerce supply or services is effectively connected with such permanent establishment, then the EL shall not apply.

5.2 The specified circumstances for a non-resident are:

- (i) sale of advertisement, which targets a customer, who is resident in India or a customer who accesses the advertisement through an internet protocol address located in India; and
- (ii) sale of data, collected from a person who is resident in India or from a person who uses an internet protocol address located in India'.

5.3 The terms e-commerce operator and e-commerce supply of goods and services have been defined in a very broad manner and would not only include aggregators but also those making such supplies of their own goods / services online.

5.4 It being a new levy, the industry and profession have requested for clarifications on few issues. Some of these are: (1) whether intra group services rendered online e.g. HR or payroll function of the group being handled from a central location are also covered by the levy, (2) whether the levy at 2% applies on gross consideration collected by the e-commerce operator, or only on his margin; (3) whether the threshold of Rs. 20 million is a standard deduction or once it is breached the taxpayer will need to pay the tax from rupee one onwards; (4) whether the levy is payable on billing basis or on collection basis; (5) whether the levy is payable even in cases where the transaction has suffered taxation as royalty or fees for technical services, etc. Many of these issues have since been addressed by the Finance Act 2021 which has made several amendments to the law as it was originally introduced.

5.5 Tax Incentives

While no specific incentives are allowed to companies doing business relating to data collection, processing or analysing, certain incentives are available to “startups”.¹⁰ If those of the next generation businesses dealing with data qualify as such startups, then they are eligible to claim 100% exemption of profits from taxation, for any three consecutive years out of the first ten years from the date of incorporation, under section 80IAC of the ITA.

5.6 Barter Treatment

The ITA does not make any specific mention of any requirement to levy a tax on barter transactions nor does it prohibit. Hence, even if sale consideration is in kind, the income is still chargeable to tax. In addition, there are certain provisions which mandate substitution of the transaction value with a value as notified or derived from another legislation, though these generally deal with real estate transactions. In addition, there are provisions under the transfer pricing provisions and those dealing with deductions (including under section 80IAC) from taxable income, where the computation has to be done at an arms’ length price. Hence, in such cases, if the transaction is recorded at lower than arm’s length price or netted out against other transactions, the same will need to be adjusted.

6. Part Five: Indirect tax

6.1 Under the GST (Goods and Services Tax) law, there is a specific provision for the inclusion of barter within the definition of supplies liable to GST. Hence, if an Indian company provides data to its parent against which it receives certain services from the parent, both transactions will be treated separately. The outward supply of data will be taxed, as the inward supply of services will also be taxed, the latter on a reverse charge basis in the hands of the Indian company.

6.2 VAT

India levies GST as a consolidated indirect tax, including excise duty, sales tax, value added tax, etc. One of the items liable to GST, Online Information Database Access and Retrieval services (OIDAR) is a category of services provided through the medium of internet and received by the recipient online without having any physical interface with the supplier of such services. This covers all types of data accessed by the users, including (i) advertising on the internet; (ii) providing cloud services; (iii) provision of e-books, movie, music, software and other intangibles through telecommunication networks or internet; (iv) providing data or information, retrievable or otherwise, to any person in electronic form through a

¹⁰ Eligible start-up” means a company or a limited liability partnership engaged in eligible business which fulfils the following conditions, namely:

- it is incorporated on or after 1 April 2016 but before 1 April 2021;
- the total turnover of its business does not exceed twenty-five** (one hundred w.e.f. 1 April 2020) crore rupees in the previous year relevant to the assessment year for which deduction under sub-section (1) is claimed; and
- it holds a certificate of eligible business from the Inter-Ministerial Board of Certification as notified in the Official Gazette by the Central Government.

computer network; (v) online supplies of digital content (movies, television shows, music and the like); (vi) digital data storage; and (vii) online gaming.

6.3 The nature of OIDAR services is such that they can be rendered from outside India. In a borderless digital world, with faster communication velocity and infinite cloud storage space, the transactions are being rendered from any part of the globe. The same is taxed on a reverse charge basis when the recipient is a legal person who registered for GST purposes by making the place of supply the location of the recipient as per section 13(12) of the IGST Act.

6.4 For cases where individuals not registered under GST are receiving such services, it is the service provider or its authorized representatives who should obtain GST registration in India and file returns on behalf of the non-resident.

7. Part Six: Tax accounting

7.1 Entities owning big data would ultimately like to exploit and monetise the same by generating stream of revenue. The same poses interesting accounting challenges for accountants. In order for a database to be treated as intangible asset, the entity owning the same should comply with the recognition criterion laid down in relevant Accounting Standards on Intangible Assets (AS-26, Ind-AS 38). These standards require the entity to consider certain recognition criteria before capitalizing such as identifiability, measurability of cost, control over a resource and expectation of future economic benefits flowing to the enterprise etc. In case of acquisition of data from a third party against consideration or acquisition on account amalgamation (business combination), the cost can be clearly identified as against measurement of cost of internally generated databases. Certain data bases which may be raw in nature, may require further churning or adding new data points or refinement. The same may also involve the cost which can be clearly identifiable or distinguishable. In other words, big data is accounted for on historical cost basis, and if there is no cost incurred for acquiring the same, the same is not booked, capitalized or amortized.

7.2 Further, amortization of data as an intangible asset poses another challenge in view of databases becoming obsolete at a faster rate nowadays as consumer preferences and behavior keep changing. While AS-26 gives rebuttable presumption of ten years as maximum period of amortization, under Ind-AS 38, there is no such presumption of useful life. Further, the method of amortization can also play a vital role e.g., while amortization based on straight line method can be easy and simple most of the time but the same may not always reflect the usage pattern.

7.3 An entity may monetise the database in different ways viz. outright sale or license to usage resulting in a lump sum or periodic royalty etc. The recognition of revenue in this regard will depend upon contractual terms and conditions coupled with the principles laid down under relevant revenue recognition standards (AS-9, Ind-AS 115).

8. Part Seven: Other

8.1 The interplay of charge for tax as royalty or fees for technical services, and also possible exposure to Equalisation Levy and risk of permanent establishment / business connection due to SEP has been discussed above.

9. Reference Case Studies

9.1 Data Brokers / Information Resellers

A: Payment by customer to Broker Co. The response is prepared on the basis that the customer is located in India.

9.1.1 The customer (C) is paying to Broker Co (B) for data. The said data is not raw data, but data which has been processed by B and its team of engineers which has organized and structured the data, as per parameters set by C. This will help reach a conclusion as to whether C is paying for customized electronic data. In view of Explanation 3 under section 9(1)(vi), customized data is included in the definition of computer software, payment which is to be treated as royalty in view of Explanation 4. Accordingly, for source rule, if payment is made by C as an Indian resident, the same will be taxable as royalty unless the royalty is payable for the purpose of a business or profession carried on by such person outside India or for the purposes of making or earning any income from any source outside India. If C is a non-resident in India, then it will be taxed only if it is for the purpose of a business or profession carried on by such person in India or for the purposes of making or earning any income from any source in India. In both cases, C will need to withhold tax while paying for the data. If B is coming from a treaty country, one will need to refer to the definition of royalty under the said treaty. While examining the issue under the treaty, the issue of copyrighted article vs right in copyright would become relevant. As noted earlier, the Supreme Court has recently held that unless an interest in all or any of the rights contained in section 14(b), read with section 14(a), of the Indian Copyright Act is transferred through a license, it would not amount to use of right in copyright and hence it cannot be characterised as royalty. Income-tax Department has filed a review petition before the Supreme Court.

9.1.2 As the customer is getting the data from B, there are no technical, managerial or consultancy services rendered by B to the customer, and hence the payment would not be classified as FTS.

9.1.3 The new concept of SEP discussed earlier, will also include the activity of B (effective financial year beginning 1 April 2021). Hence, one would need to ascertain if the data sold by way of download, was collected from a person who resides in India or from a person who uses an internet protocol whose address is located in India. If so, one would need to check if the threshold to be prescribed under section Explanation 2A is breached or not. If both these conditions are satisfied, then so much of the income as is attributable to the transactions or activities for providing the download of data will be deemed to accrue or arise and therefore taxable in India. The following points arise in this regard:

(i) How is such income to be computed? For example, if the data downloaded by C includes

not only data collected from persons located in India or from persons who use an IP address located in India, but also from other countries, and a single price is paid by C for the same, how will the attribution be done.

- (ii) Even after determining gross revenue attributable to India, as only net income, i.e. after deducting all expenses is taxable, guidance is needed on how such expenses are to be attributed. This is more relevant considering that the majority of expenses will be incurred outside India, on which tax withholding is not done as per Indian requirements.

9.1.4 As mentioned earlier, India has introduced a special legislation by the name of Equalisation Levy effective 1 April 2020. The said levy is applicable to, inter alia, online supply of goods or services or both by a non-resident to a resident. Online download of data would be covered within the scope of the levy. It has been provided that it is not to be charged if the non-resident has a permanent establishment in India and such e-commerce supply or services is effectively connected with such permanent establishment. Permanent establishment has been defined to include a fixed place of business through which the business of the enterprise is wholly or partly carried on. As such, a business connection by way of an SEP would not be tantamount to a permanent establishment unless the non-resident has a PE in India, and hence equalization levy will be levied. As equalization levy is payable, the income will not be taxable under the ITA, in view of exemption under section 10(50).

9.1.5 If B is liable to pay tax as income by way of royalty, or for payment of Equalisation Levy, the same are taxed on a gross basis, without deduction for any expenses, whether directly or indirectly incurred for earning the same. As such, the question of any deduction of payments by way of data cost or its amortization, would not arise. For the payment for the data, the customer, would generally be entitled to deduction while computing his business income in India as wholly and exclusively for the purpose of the business.

9.1.6 Under the GST law, the Indian customer will be required to pay GST on reverse charge basis on the payment made to B for the use of data. The customer will be entitled to claim input tax credit in respect of the said GST paid, if otherwise eligible for the same.

B: Payment by B to Website Co (W). Both B and W are considered as non-residents of India

9.1.7 B is paying an annual fee to W for access to user generated data. The payment is made by one non-resident to another. Going by the source rule, for a non-resident such income is taxable as royalty only if it is payable for the underlying right, property or information being utilized for the purposes of a business or profession carried on by the non-resident in India, or for the purposes of making or earning any income from any source in India.

9.1.8 If this test is satisfied, one needs to proceed to examine whether the payment is in the nature of royalty per se. There is a view that consideration for allowing use of data is in the nature of permitting use of copyrighted data, and hence the same is in the nature of royalty. As noted earlier, the Supreme Court has recently held that unless an interest in all or any of the rights contained in section 14(b), read with section 14(a), of the Indian Copyright Act is transferred through a license, it would not amount to use of right in copyright and hence it cannot be characterised as royalty. Income-tax Department has filed a review petition before the Supreme Court.

9.1.9 Before examining the payment from the SEP perspective, one also needs to ascertain if the same is taxable as “Fees for Technical Services”. On the facts of the given case it appears that service provided is a standard facility as the service would be identical to other users if any who wish to access the data from W’s website. As such, the same would not be FTS, based on discussion above.

9.1.10 As regards SEP, Clause (b) speaks of systematic and continuous soliciting of business activities or engaging in interaction with such number of users in India, as may be prescribed. This clause may get triggered in case W’s website is engaged in such systematic and continuous soliciting of business activities or engaging in interaction with such number of users in India. If so, one will need to ascertain if such number of users exceeds the limit to be prescribed, and on that basis the existence of SEP will be determined. If one can conclude that indeed W has an SEP in India, it would be taxable on the income attributable to operations carried out in India, as provided in Explanation 3A.

9.1.11 As regards Equalisation Levy, the same is to be paid on consideration received or receivable by an e-commerce operator from e-commerce supply of services made or provided or facilitated by it, inter alia, to a non-resident in the specified circumstances. These circumstances include sale of data collected from a person who is resident in India or from a person who uses an internet protocol address located in India. If there is a customer resident in India who is buying data from B, one would assume that the said data is in the nature of data collected from Indian residents, or from a person who uses an internet protocol address located in India. On that basis., if the total payment for the same exceeds the threshold of INR 20 million, an equalization levy at the rate of 2% would be payable.

9.2 Data Feeds

9.2.1 The fee received by Animal Data Co (ADC) is for use of data feed for display of its analysed data on the Information Site Co (ISC). In view of the detailed discussion on definition of royalty earlier, there is a view that the fee, if paid by ISC as an Indian resident, will not be in the nature of royalty, as the same is not for use of data, but merely for use of the data feed. At the same time, there is another view that it may be treated as “use of copyright” or “computer software” and hence royalty. As noted earlier, the Supreme Court has recently held that unless an interest in all or any of the rights contained in section 14(b), read with section 14(a), of the Indian Copyright Act is transferred through a license, it would not amount to use of right in copyright and hence it cannot be characterised as royalty. Income-tax Department has filed a review petition before the Supreme Court.

9.2.2 As regards examination of whether the same qualifies as FTS is concerned, from the given facts it appears that the data feed sharing by ADC is in the nature of a standard facility given to its customers. On that basis, the same will also not be taxable as FTS.

9.2.3 The Equalisation Levy discussed earlier will apply to e-commerce supply or services. ADC is providing e-commerce supply of data feed to ISC. Hence if ISC is an Indian resident, EL is payable. It is interesting to note that the transfer pricing provisions do not apply to the Equalisation Levy. Hence even if ADC and ISC are associated enterprises, EL will be payable on the consideration as recorded / remitted, without any requirement of confirmation to

arms' length price. If ISC is a non-resident, then the data feed does not appear to be covered in the specified circumstances covered by the levy for a non-resident, and hence EL will not be payable. As ISC does not charge its visitors any fee for viewing the data, the question of EL on the same does not arise.

9.2.4 In case ADC does not charge any fee, but in return gets data relating to visitors to the site of ISC, from which it solicits donations, income will need to be imputed on the barter transaction as a payment in kind. Further, if both ADC and ISC are associated enterprises, the arm's length consideration will be imputed to be the income of ADC and be examined for taxation.

9.2.5 The source of the fee in order to be taxable as royalty or FTS is that the same may be paid by an Indian resident unless it is payable for the purpose of a business or profession carried on by such person outside India or for the purposes of making or earning any income from any source outside India.

9.2.6 In case ISC is in India, and pays fees to ADC, ISC will be liable to pay GST on the fees paid to ADC, on a reverse charge basis. If ADC and ISC are associated enterprises, and no fees are charged by ADC, GST will be payable on the arm's length price of the data feed. There are certain rules to determine the value to be adopted for such purposes, such as cost plus 10%. In case ISC is entitled to input credit on all its inputs, then the value disclosed will be accepted.

9.3 Performance Data Analytics

A: Royalty

9.3.1 Know-how royalty for imparting of information: In this case data tools analyse data to provide information to the equipment owner and Service Co employees relating to early warning of failure, risk prediction, suggesting preventive maintenance and needed repair. Thus, Service Co is sharing information concerning technical, industrial, commercial, or scientific knowledge, experience or skill in the form of information relating to early warning of failure, risk prediction, suggestive preventive maintenance etc. which can be classified as royalty.

9.3.2 In many cases, the repair services consist of adjustment to software or other equipment controls which can be implemented through communications from the data centre without human intervention. To the extent the repair service of the equipment of customers is happening automatically there will not be any royalty. However, where the information is provided and then the equipment owner carries out preventive maintenance, repair, etc. based on that information, it would be characterised as know-how royalty under Indian domestic law. In the case of Oncology Services India Pvt Ltd [TS-209-ITAT-2017] ITAT Ahmedabad held that payment to a German company for sharing Standard Operating Procedures is in the nature of royalties.

9.3.3 Equipment royalty for sensor: In a heavy equipment product line, the sensor is already included in the equipment which is owned by the equipment owner. Hence this cannot be royalty. The case could be different in the case of a consumer appliance product line where

the sensor is owned by Service Co and is installed in the equipment at customer place. The payment made by the customer can be either classified as for the use or right to use this sensor (ICS equipment) or for the services rendered by Service Co. This would depend on further facts analysis. There could be a case that the customer has not paid for the sensor as that was not the predominant objective to buy the equipment and that he was interested in a glitch-free running of the equipment. In that case, it would not qualify as ICS royalty. Another argument against royalty would be that the sensor is not in possession or under control of the customer. However, Explanation 5 of section 9(1)(vi) of the Indian Income tax Act provides that possession or control of right property or information with the payer is not necessary to decide whether use of right, property or information constitutes royalty.

9.3.4 In the case of consumer behavior consultancy service there does not appear to be any case of characterisation as royalty since there is no data transfer to the customer and what is provided is only consultancy service based on data provided by the customer.

B: Fee for Technical Services (FTS)

9.3.5 In all three cases the services provided by Service Co could be classified as FTS under Indian domestic law as the service rendered by Service Co would be of managerial, technical or consultancy nature. As discussed in the main report human intervention is not necessary for a service to qualify as FTS and what is important is that it should not be a facility. On the facts of the given case it appears that the service provided is not a standard facility as the service differs from customer to customer based on their specific needs and requirements. Hence, even though there is no human invention, the service could still be classified as FTS under Indian domestic law.

9.3.6 It must also be discussed that the same payment cannot be both royalty as well as FTS. We have discussed above that in the case of a heavy equipment product line and a consumer appliance product line there could be know-how royalty except where repair service to the equipment of customers is happening automatically. If characterized as royalty, the payments will not be further characterized as FTS as in that situation the final preventive or repair work is carried out by the customer himself based on the information given by Service Co. The payment which pertains to automatic repair service to the equipment would then be classified as FTS. Similarly, in the consumer appliance product line the payment can be characterized as equipment royalty. But if that payment is already covered in know-how royalty then there will not be any further need of reclassification.

C: Business income

9.3.7 All these incomes could also be characterized as business income and for that there is the business connection test under Indian domestic law even without new proposed SEP law (which will come into force on 1st April 2021). Once again there would be overlap as the income could be clarified as royalty/FTS as well as business income. Since royalty/FTS are more specific sections, the general consensus is that it would be taxed as royalty/FTS unless it is effectively connected with the PE. In the latter case it would be taxed as business income.

D: Source of income of Service Co

9.3.8 If customers paying for FTS/royalty are located in India, then under Indian domestic law both FTS and royalty would be deemed to arise in India unless it is for business or a profession carried out by that person outside India or for earning of income from any source outside India. For Indian source rule, there is no requirement for a non-resident to provide service from India or have a place of business in India.

E: Whether sensor creates nexus of Service Co?

9.3.9 The test is stricter for creating nexus under a tax treaty. It must be a fixed place of business through which the business of Service Co is required to be carried out, wholly or partly. There would be little dispute as to whether a sensor is a fixed place of business. The OECD Commentary makes it clear that fixed does mean fixed to the ground and ownership is not important. What is important is that disposal test. Prima facie, on the facts of this case it does appear that the sensor is at the disposal of Service Co and hence constitutes nexus for constituting PE.

9.3.10 Further, the rule of automatic machine as contained in the OECD Commentary, would also create a nexus since sensors are operated by Service Co to obtain data for further analysis. Similarly, in the case of MasterCard Asia Pacific Pte Limited (2018) 406 ITR 0043 the AAR has held that MIP placed in the premises of Indian banks constitute a fixed place PE of the MasterCard. Thus, a sensor placed in the equipment could create nexus if the facts show that the business of Service Co is carried out through these sensors.

F: Whether data centre creates nexus of Service Co?

9.3.11 The OECD Commentary states that websites do not constitute a PE (on which India has taken its position¹¹). However, in this case the issue under consideration is the data centre and not the website. With respect to the server or data centre it is clear that if the data centre is at the disposal of the non-resident it would constitute its PE. Hence, what is important to determine is whether the data centre if located in India is at the disposal of Service Co. The ownership of the data centre by Service Co is not important. From the facts of this case as presented it appears that data centres are at the disposal of Service Co and hence creates nexus.

G: Whether the payment is know-how royalty or ICS royalty or FTS under treaty?

9.3.12 There could be royalty on account of “imparting of information” on the facts of this case where the information is provided and then the equipment owner carries out

¹¹ The Supreme Court has observed in the Engineering Analytics case (ibid) that merely taking a position on the OECD Commentary without any amendment to the DTAA will not be a ground to deny persuasive value of the OECD Commentary. Income-tax department has filed a review petition before the Supreme Court.

preventive maintenance, repair, etc. based on that information. This will not cover the situation where a repair service to the equipment of customers is happening automatically. However, it is necessary to see whether the 'royalty' definition under the applicable treaty covers information concerning technical, industrial, commercial, or scientific knowledge, experience or skill. Many of Indian DTAA's may have a narrower scope of the term 'royalty' and this may not be included. In that case it may not be royalty unless the situation is covered in the other limb of the definition of royalty.

9.3.13 The issue of ICS royalty is relevant only in the case of a consumer appliance product line, as discussed earlier. Further, some of Indian DTAA's do not cover ICS equipment within the definition of the term 'royalty'. Hence, there could be a case of royalty only where the definition of the term 'royalty' includes ICS equipment in the DTAA. In case of ICS royalty, another issue would arise as to whether possession or control is an important criterion to decide if the payment for use or right to use of sensor, constitutes royalty. Explanation 5 to section 9(1)(vi) of Indian domestic law does state that this is an important criterion. However, in the case of *New Skies Satellite BV* (2016) 382 ITR 114, Delhi HC held that the unilateral amendment by way of explanation would not apply in a treaty situation.

9.3.14 The SLP against the Delhi HC decision in *New Skies Satellite* has been admitted to the Supreme Court and the final decision is awaited. However, if one sees the OECD Commentary the fact of it not constituting royalty is based on the reasoning that the possession is not with the payer (India has taken position on that). However, on the facts of this case it can be seen that the possession of the sensors is with the customers making the payment. Thus, this difference between the OECD Commentary and the Indian position may not be relevant for this case. The only issue that would be relevant to characterise the payment as royalty would be the purpose of making payment to Service Co. If the facts show that the payment made to Service Co is for use or right to use of sensor then it is royalty. However, if the payment is for the end result that Service Co is providing using that sensor, then it is not royalty. This would depend on further facts analysis. There could be a case that the customer has not paid for the sensor as that was not the predominant objective to buy the equipment and that he was interested in a glitch-free running of the equipment. In that case, it would not qualify as ICS royalty.

9.3.15 Most of the Indian tax treaties contain an article on FTS giving the source country the limited right to tax FTS on a gross basis unless effectively connected with PE. In most case the definition of FTS is the same as in domestic law and thus any FTS under domestic law would qualify to be FTS under the treaty. However, some of the Indian treaties also contain a requirement of "make available". In those treaties the scope of FTS is narrower. In these situations, the payments, on the facts of this case, would not qualify as FTS under those tax treaties as Service Co is not making available its technical skill or knowledge to the customers to whom service is being provided.

9.4 Analytics Based Consultancy

A: Characterisation of two revenue streams

9.4.1 The characterisation of two revenue streams is different. In the first situation where the consultant is using its database to support consultancy to educational institution,

the database is not licensed but it is used by the service provider (who is also owning the database) to render service. Hence it would be characterised as Fees for Technical Service. In the second situation, the database is licensed to a third party with their exclusive use. The database contains information of students which is not in the public domain. Hence, as per the discussion in paragraph 2.7, 2.8 and 2.9 of India's note, it is likely to be classified as royalty.

B: Treaty application

9.4.2 In the first situation it would be FTS under Indian domestic law as explained above. Some of the Indian treaties do not include an article on FTS. Some other treaties have an article on FTS but the requirement of 'make available' needs to be satisfied. In this case it cannot be said that Consultant Co while rendering service to educational institutions is making available its knowledge or skill. Hence in these treaties, it would not be characterised as FTS but as business profit, and hence not taxable in India unless the non-resident has a PE in India. In the second situation, since the information is not in the public domain the licensing of the database would be characterised as royalty under treaties as well as per the discussion at paragraph 2.7, 2.8 and 2.9 of the note.

C: Accounting standards

9.4.3 The Accounting standards require an entity to consider certain recognition criteria before capitalizing such as identifiability, measurability of cost, control over a resource and expectation of future economic benefits flowing to the enterprise. It appears that the cost of generating the database is in the nature of inhouse costs like salaries, and hardware and software costs. The hardware would be a tangible asset and its cost would be capitalized. Software cost may be capitalized in case the same is in the nature of cost of an operating system, without which the hardware cannot function. Other software costs may also be capitalized if the same is not in the nature of license fees for use of software for a period, but a software which is used to run the business of the company, like in the instant case the software used for data analytics needed to make the data saleable. Manpower costs are generally treated as revenue costs, unless attributable to a capital project.

D: EL

9.4.4 India has introduced the Equalisation Levy in 2016 whose scope has been expanded in 2020 and clarified in 2021. Under the new EL, with effect from 1 April 2020, EL is levied on online sale of goods or provision of services or both. Since in both cases there is online provision of services (assuming Consultant Co is providing services to Indian clients) it would be subjected to EL.

10. Addendum

10.1. Rationalisation of the provisions of the Equalisation Levy

The Equalisation Levy is levied at the rate of two per cent of the amount of consideration received or receivable by an e-commerce operator from e-commerce supply or services made or provided or facilitated, as discussed in Part Four of the report.

The Finance Act 2021 has carried out the following amendments in the Finance Act, 2016, which bring about clarity in several ambiguities which are mentioned in paragraph 5.4 of the report. The amendments seek to:

- Insert an Explanation to section 163 of the Finance Act, 2016, clarifying that consideration received or receivable for specified services and consideration received or receivable for e-commerce supply or services shall not include consideration which are taxable as royalty or fees for technical services in India under the Income-tax Act read with the agreement notified by the Central Government under section 90 or section 90A of the Income-tax Act.
- Insert an Explanation to clause (cb) of section 164 of the Finance Act, 2016, providing that for the purposes of defining e-commerce supply or service, online sale of goods and online provision of services shall include one or more of the following activities taking place online:
 - (a) Acceptance of offer for sale;
 - (b) Placing the purchase order;
 - (c) Acceptance of the purchase order;
 - (d) Payment of consideration; or
 - (e) Supply of goods or provision of services, partly or wholly.
- Amend section 165A of the Finance Act, 2016, to provide that consideration received or receivable from e-commerce supply or services shall include:
 - (i) consideration for sale of goods irrespective of whether the e-commerce operator owns the goods; and
 - (ii) consideration for provision of services irrespective of whether service is provided or facilitated by the e-commerce operator.

These amendments will take effect retrospectively from 1 April, 2020, i.e. the date when the original provisions were introduced.

10.2. The report also highlights in one of the case studies situations where both taxation as Royalties / Fees for Technical Services and as Equalisation Levy for the financial year 2020-21 are possible (see paragraph 9.1.4).

The Finance Act 2021 also has amended section 10(50) of the Income tax Act to:-

- (i) provide that section 10(50) will apply for the e-commerce supply or services made or provided or facilitated on or after 1 April 2020.
- (ii) clarify that exemption under section 10(50) will not apply for royalty or fees for technical services which is taxable under the Act read with the agreement notified by the Central Government under section 90 or section 90A of the Act.
- (iii) define e-commerce supply or services under section 10(50) as the meaning assigned to it in clause (cb) of section 164 of Chapter VIII of the Finance Act, 2016.

INDIA

This amendment will take effect from 1 April 2021 and will accordingly apply to the assessment year 2021-22 onwards, i.e. from the date of introduction of the Equalization Levy discussed above.

Summary and conclusions

Certain IP rights may apply to a database, if creativity or substantial investment occurs, and law of trade secret may provide an *erga omnes* protection of data, if information is secret, protected through adequate arrangements and with business value, leading to an intellectual property of data and databases. IP rights may apply to big data, depending upon the circumstances, among which whether data are raw, structured, or analyzed.

Various aspects of big data, such as transfer, analysis and sharing, may be governed by contractual arrangements. From a legal perspective, in principle data are not sold, but rather made available to the other party of the agreements through the performance of a service. Contractual restrictions on the use of data may lead to a *de facto* property right.

Italian tax laws do not specifically regulate data transaction income, which thus needs to be characterized by interpreting existing rules and principles.

In particular, income character and source of data transactions may be addressed by leveraging – where appropriate – on existing interpretation with regard to software, database, know-how and lease of equipment, to be distinguished from general provision of services. This leads to consider whether data transactions may give rise to royalty income, gains or business profits.

With regard to character, and in particular to royalty income, while copyright generally applies to software, an important aspect is whether data may *inter alia* qualify as secret business information or know-how, and exploitation of such data occurs.

Further, although data, a database and software may – under certain circumstances – constitute IP, income arising therefrom qualifies as royalty only to the extent that it constitutes consideration for commercial exploitation, rather than for personal or commercial use. This principle, which has been stated with regard to software, should be applied to data and databases.

Beside royalties, data transaction may give rise also to gains or business profits.

In this context, two recent private rulings qualified income from the sale of databases as gain; on the other hand, where a business – as a core activity – collects, organizes and/or analyzes data, in order to provide raw/structured data and data analytics, the most appropriate character is business profits: these activities require material investments, R&D and specialistic skills, which are applied to provide a service.

Against this background, in most cases source taxation should apply only if an Italian permanent establishment occurs. However, should data transaction income characterize as royalty, a withholding tax will apply, unless an exemption is available.

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² The author would like to thank Andrea Alcara, Giammarco Cottani, Paolo Giacometti, Antonino Guida, Alessandro Turina and Antonio Zambon for their insights; the author is grateful to Paolo Bertoni, Sara Molina and Jacopo Baieri for their support on IP law profiles, and to Fabio Dotti on technical matters. Contents and views expressed in this report are those of the author.

With regard to permanent establishment, two aspects are worth mentioning. First, effective from 2018, Italy enacted a “significant economic presence” threshold. The relevant provision is extremely vague and is expected to give rise to uncertainties, especially in relation to treaty provisions. Second, for a long time the Italian Tax Authorities have been assessing undisclosed permanent establishments in a quite aggressive and “novel” manner. This intertwines with issues that are posed by purely digital businesses, among which whether there may be a physical presence in Italy, constituted by servers and fiber optic cables. This is an update of the issue whether, and at what conditions, a server may constitute a permanent establishment, with certain innovative traits.

Double Tax Treaties encompass various wordings to define “software”, but it is reasonable to conclude that all definitions point to the same concept.

Among special regimes provided by the Italian tax system, the Digital Service Tax, certain incentives, and the barter theory are worth mentioning.

Effective from 2020, Italy enacted a Digital Service Tax, which is largely aligned with the Proposal for a Directive by the EU Commission; the threshold of local qualifying revenue is set at Euro 5.500.000,00. Among qualifying digital services, there is the transmission of data collected, which must be from users and generated through the use of a digital interface. The DST will be repealed as of 2023 following consensus reached at the OECD G-20 Inclusive Framework level.

Further, the Italian tax system currently encompasses certain incentives which may relate to data.

No official guidelines support the barter theory, under which free digital services would be rendered in exchange of data from the users. Academic works report a general consensus on the difficulties to identify a sufficiently direct link between the supply and its consideration.

Finally, the report addresses the case studies set out in the general report, with particular regard to income character and source.

Introduction: Legal background

The Italian legal system is largely aligned with the general principles stated in the legal background of the general report.

IP rights, such as copyright, *sui generis* right and law of trade secret, may lead to an intellectual property of data or databases.

In the first place, a dataset may be IP-protectable, if it: (A) properly constitutes a “database”; and (B) meets certain legal requirements.

As to point (A), a dataset constitutes a “database” to the extent that the elements collected and contained therein are: (i) independent, (ii) systematically or methodically arranged on a record, register, file, etc., and (iii) individually accessible.³

A set of structured or analyzed data may, in principle, qualify as a “database”. The same is doubtful in relation to raw data, such as data from machine-to-machine communication;

³ Art. 2(1)(9) of Law No. 633/1941 (the “Italian Copyright Law”).

however, a set of raw data that can be “executed” through a search engine, allowing to access each data object, may qualify as a “database”.⁴

As to point (B), a database may be protected under two statutes, *i.e.*, copyright⁵ and *sui generis* right,⁶ upon fulfillment of the criteria set out in the general report (*i.e.*, creativity and substantial investment, respectively).

Scholars agree that big data tend to be incompatible with copyright, to the extent that data selection choices are made on the grounds of technical drivers and through software or algorithms, rather than creativity.⁷ Under any circumstance, copyright on a big data database would cover the specific relational model, not data objects.

Further, scholars generally agree that investments aimed at creating raw data should not be taken into consideration for the purposes of *sui generis* right, insofar as the database is a spin-off of a different core activity; on the other hand, in principle, a database of structured or analyzed data may be protected by *sui generis* right,⁸ but this would not prevent extraction/reuse of a non-substantial part of the data therein.

As far as law of trade secret is concerned, under Italian law the notion of trade secret comprises reserved business information, technical experiences (*e.g.* know-how) and commercial information (*e.g.* the list of clients); no specific distinction is provided between know-how and other secret information.⁹

Big data may fall into the scope of the notion of trade secret,¹⁰ to the extent that information is secret, has business value and is subject to reasonable arrangements aimed at keeping such information secret. Information is also deemed “secret” if single pieces of information may be knowable but cannot be known as a whole or in their combination:¹¹ case-law upheld that big data fall into the scope of reserved business information.¹²

Finally, various aspects of big data, such as transfer, analysis and sharing, may be governed by contractual arrangements.

From a legal perspective, in principle data are not sold, *i.e.*, there is not a change in ownership, but made available to the other party of the agreements,¹³ although the so-called Data Transfer Agreements may impose restrictions leading to a *de facto* property right.

⁴ G. Bonelli et al., *Big data: privacy, gestione, tutele*, 2018, pp. 138-139.

⁵ Art. 2(2) Italian Copyright Law.

⁶ Art. 102-bis Italian Copyright Law.

⁷ G. Bonelli, *supra*, p. 143.

⁸ G. Bonelli, *supra*, p. 146.

⁹ Art. 98(1) of Legislative Decree No. 30/2005. See R.-A. Papotti-C. Setti della Volta, *Italian Tax Authorities Address Treatment of Data Transaction Income*, in *Tax Notes International*, 5 April 2021, pp. 58-59.

¹⁰ G. Bonelli, *supra*, p. 153.

¹¹ According to A. Ottolia, *Big data e innovazione computazionale*, 2017, p. 51, an example of this is Internet-of-Things or machine-to-machine communication data.

¹² Tribunal of Bologna, decision No. 2222 of 2017; Tribunal of Turin, decision of 15 November 2018; Tribunal of Turin, decision of 6 July 2012, holding that “clients” information such as names, addresses, products preferences, purchase habits” constitute business information.

¹³ G. Bonelli, pp. 289-290.

Part One: Basic principles: Character, source and nexus

1.1. General overview

Italian tax laws do not specifically regulate data transactions income, which thus needs to be characterized into traditional categories and items of income, by interpreting existing rules and principles.

Income character and source will be addressed in the next two paragraphs, leveraging – where appropriate – on existing interpretation with regard to software, database, know-how and lease of equipment, to be distinguished from general provision of services; the subsequent third paragraph will deal with nexus (*i.e.*, permanent establishment, “PE”).

1.2. Character

Income characterization derives from civil law framing of facts and arrangements: a key-role is played by IP rights and law of trade secret.

In light of this, data transaction income may characterize as profit, gain and royalty: it thus seems appropriate to address these characters, distinguishing, to the needed extent, whether they arise in the hands of a resident business or an individual, whose tax treatment applies also to non-residents with no PE in Italy.¹⁴

Resident businesses

With regard to resident businesses,¹⁵ income from the sale of assets which are manufactured and sold as core activity, and from the provision of services, qualifies as profit.¹⁶ Income from the sale of other assets qualifies as gain.¹⁷ Characterization as profit and gain applies also to the exploitation of IP, depending upon contractual arrangements (*i.e.*, license or alienation) and the nature of the IP-right transferred (*i.e.*, as core business or not).¹⁸ In these cases, the characterization as income from IP (*i.e.*, royalty) is relevant for the purposes of double tax relief.

¹⁴ Income generated by individuals and non-residents must be allocated into specific categories of income, in particular, from: land, capital, employment, self-employment, business and other sources (“other income”). The allocation to a certain category of income is relevant for the purposes of tax base determination, source rules and double tax relief.

¹⁵ Corporate income tax applies at a 24% rate and regional business tax applies at a 3.9% rate. Corporate tax rules also apply to PEs of non-resident companies, with no force of attraction.

¹⁶ Art. 85 of Presidential Decree No. 917/1986, *i.e.*, the Italian Income Tax Code (“ITC”).

¹⁷ Art. 86 ITC.

¹⁸ Circular letter No. 32/9/2267/1980, ch. 5.

Resident individuals

With regard to resident individuals,¹⁹ income qualifies as profit and gain along the lines of the principles that govern income of resident businesses, to the extent that the relevant item arises in the context of self-employment²⁰ or a *stricto sensu* business activity.²¹ In contexts other than self-employment and business activity, a gain is not taxable if it relates to assets which are not specifically listed as other income; such gain, however, is taxable, if it falls into the scope of either a non-recurring self-employment or business activity,²² or – under a certain interpretation – of an obligation to do, not do and let do.²³ Royalty income qualifies as self-employment or other income,²⁴ unless it derives from a *stricto sensu* business activity, in which case it qualifies as profit.

Royalty is identified by reference to income from IP, which is defined in different types of rules, i.e., characterization, source²⁵ and administration (withholding)²⁶ rules, with a certain degree of inaccuracy and the need to refer to civil law categories:²⁷ this determines an overall fragmented picture.²⁸ Against this background, it seems appropriate, first, to narrow down the scope of analysis only to certain IP-rights and, then, draw some conclusions on characterization of data transaction income as royalty, gain or profit.

Among IP rights which may give rise to royalty income, copyright covers software and – together with *sui generis* right – databases if certain requirements are met (see the section legal background *supra*). Also, law of trade secret should be considered, covering secret business information, including data, databases and know-how.

In addition, consideration should be given to lease of equipment, which, from a domestic perspective, gives rise to other income, but is subject to the same withholding as income from IP;²⁹ income from lease of equipment is covered by the Interest and Royalty

¹⁹ Personal income tax applies at rates ranging from 23% to 43%. Local surcharges may apply.

²⁰ Art. 53 ITC. Self-employment covers artistic and intellectual professions (e.g. activities that are restricted and require registration to a Bar, Professional Order, etc.).

²¹ Art. 55 ITC. An individual carries on a *stricto sensu* business activity if he/she performs the following activities: (i) industrial, manufacturing, intermediation, transportation, financial and insurance activities; (ii) activities which are ancillary to those sub (i); (iii) certain agricultural activities; (iv) any provision of service carried out in an entrepreneurial manner; (v) exploitation of natural resources.

²² Art. 67(1)(i and l) ITC. According to the Italian Tax Authorities, the character as non-recurring may depend upon the activities put in place to carry out a deal, even if one-off, and upon its size (Ruling No. 204/2002). A case-by-case approach is advisable.

²³ Consultive Opinion No. 32/2006 issued by the Consultive Committee of Tax Auditors interpreted the wording “economic exploitation” for both self-employment and other income to encompass licensing and alienation of IP; however, in the context of other income, Regional Tax Court of Venetia decision No. 524/2019 excluded that the alienation of a trademark by individuals in their personal capacity could constitute a taxable event as an obligation to do, not do or let do. See also *infra* in relation to source rules.

²⁴ Respectively, art. 58(2)(b) and art. 67(1)(g, h, l) ITC.

²⁵ Art. 23(2)(c) ITC.

²⁶ Arts. 25(4) and 26-*quater* of Presidential Decree No. 600/1973 (“WHT Code”), for the purposes of – respectively – the statutory withholding tax on royalties and the exemption from withholding pursuant to Council Directive 2003/49/EC (“Interest and Royalty Directive”).

²⁷ Supreme Court decision No. 21220/2006, on neighboring rights; Ruling No. 143/E/2017, on icons for furniture pieces.

²⁸ For a comprehensive analysis, A. Brazzalotto, *Chapter 16 – Italy*, in G. Maisto (Ed.), *Taxation of Intellectual Property under Domestic Law, EU Law and Tax Treaties*, 2018, pp. 479 et seq..

²⁹ Art. 67(1)(h) ITC and art. 25(4) WHT Code.

Directive and qualifies as royalty in Double Tax Treaties (“DTTs”) entered into by Italy.

Lease of equipment covers lease of vehicles, equipment, and other mobile assets, and of industrial, commercial, and scientific equipment. The Italian Tax Authorities specified that these definitions include cars, ships, aircrafts, and train coaches,³⁰ machineries such as industrial robots, containers, cranes for constructions, cement mixers, tractors, and threshing machines.³¹

Character of data transaction income – Royalty

It is now possible to provide some remarks on how data transaction income may be characterized, starting from royalty, and then moving to gain and profit.³²

Copyright, as mentioned, does not apply to data *per se*, but only to the relational model of a database: this does not seem incompatible with the relational model of a database of structured data or data analytics. On the other hand, *sui generis* right may protect the substantial part of data objects in a database, but only to the extent that a material investment, specifically related to the development of the database, is made: this should exclude *sui generis* right over a database of raw data, while the development of structured data and data analytics may qualify. Further, tools for analytics may fall into the scope of copyright.

Data may qualify as secret business information and thus be protected pursuant to law of trade secret. Also, a specific activity put in place to provide structured data or data analytics targeted for the client may constitute a separate know-how, *i.e.*, the application of skills which are already available and are not transferred.³³

Since, in light of this analysis, data, a database and software may – under certain circumstances – constitute IP, it must be ascertained whether income arising therefrom always qualifies as royalty and, if not, at what conditions.

According to the relevant law provisions, income qualifies as royalty to the extent that it derives from “use” of IP: the meaning of “use” has been addressed with regard to software.³⁴

The Tax Authorities clarified that consideration paid to a software producer by a user who simply operates the software does not give rise to royalty income, which by contrast arises from the economic exploitation of IP-rights.³⁵ On these grounds, the Tax Authorities maintained that consideration for the distribution rights of a software gives rise to royalty income.³⁶

It is worth noting that this latter position was adopted before the 2008 amendments to the OECD Commentary to article 12 MTC, in relation to which, and with specific regard to paragraph 14.4, Italy registered an observation pointing out that “it will examine each

³⁰ Circular Letter No. 42/1981, para. II.7.

³¹ Circular Letter No. 47/E/2005, para. 2.1.1.

³² In line with Italian laws and art. 7(4) MTC.

³³ OECD, *Tax Treaty Characterisation Issues Arising from E-Commerce*, 2001, para. 35.

³⁴ The wording of use of IP slightly differs in the relevant provisions: arts. 53(2)(b) and 67(1)(g) ITC refer to “economic utilization”; art. 23(2)(c) ITC refers to “utilization”; art. 26-*quater* WHT Code refers to “use and letting use”.

³⁵ Ruling No. 169/E/1997.

³⁶ Ruling No. 128/E/2008, regarding a case where the licensed Italian business had the right to market and distribute the software to final users.

case taking into account all circumstances, including the rights granted in relation to the acts of distribution”.³⁷ Through this observation, Italy shifted from the position put forward in 2008 to a case-by-case approach: indeed, unpublished guidelines and case law seem to confirm that if a distributor is granted only distribution (and not reproducing) rights, then income does not characterize as royalty.³⁸ A different case would occur where owners of copyrighted content license it to a platform, which in turn reproduces such content to users: in this case, royalty income may occur and contractual arrangements will be key to assess income characterization.

In light of the above, “use” of IP rights refers to commercial exploitation of IP, rather than to the personal or commercial use of IP. The same interpretation should apply to exploitation of data and databases, where applicable.³⁹

Finally, lease of equipment, insofar relating to tangible assets, seems incompatible with data and database. In particular, the author disagrees with the interpretation characterizing fees paid to online travel agencies as royalty for the use of websites, that would constitute “virtual shop windows” and, as such, “potentially characterizable as commercial equipment”.⁴⁰ By contrast, lease of equipment may apply to servers, but should be distinguished from web hosting services: in particular, a server should be deemed leased if the lessor has control of the hardware, rather than mere availability of a space on a server operated by a professional internet service provider.

Character of data transaction income – Gain and profits

In light of the above principles, it is appropriate to ascertain also whether income from data qualifies as gain or profit.

The Tax Authorities qualified the sale of a database as gain in two private rulings.

In the first case (*i.e.*, sale of a trademark, web domain and a database of attendants to a certain recurring specialized event), character as gain was confirmed; also, this gain was allowed to be spread over a five-year period, insofar deemed held for three years, notwithstanding the fact that these intangible assets had never been recorded in financial statements.⁴¹

In the second case (*i.e.*, intra-group transfer of a registry of users who have signed up on the website and other digital platforms (for example, on the Apple Store or using Google Play), known as “Member-List”; the member list contains users’ personal information and data about their activities, behavior, and purchases), the Tax Authorities specified that the

³⁷ OECD Commentary to art. 12 MTC, para. 31.2.

³⁸ Private Ruling No. 39171/2012, issued by Lombardy Regional Directorate of Tax Authorities, quoted in Regional Tax Court of Lombardy decision No. 60/2017. D. Avolio-D. Pezzella, *Il sottile confine tra royalties e diritto di distribuzione del software*, in CT, No. 14/2017, p. 1081.

³⁹ C. Galli, *Italy*, in IFA *Cahiers, Taxation of income derived from electronic commerce*, 2001, p. 531. Also, OECD Commentary to art. 12 MTC, para. 17.1.

⁴⁰ Guardia di Finanza (ed.), *La tassazione della digital economy*, 2019, available at <http://www.leoassociati.it/pdf/1569330793-pdf-La-tassazione-della-digital-economy.pdf> (last visited 21 October 2020), p. 289. This publication is by the Italian Tax Police. This issue was raised also in OECD, *Addressing the Tax Challenges of the Digital Economy, Action 1*, 2015, para. 269, and in OECD, *Tax Challenges Arising from Digitalisation – Interim Report*, 2018, para. 356, but no consensus was reached.

⁴¹ Private Ruling No. 19/2020.

transfer of the Member-List gives rise to a capital gain, fully taxable in the year of realization, since the Member-List is subject to continuous change/update and, therefore, cannot be deemed held for three years.⁴²

In both cases, data transfer was not the transferors' core business. By contrast, the rulings diverged on the eligibility to spread the gain over a five-year period: this may be due to the nature of the relevant databases, *i.e.*, apparently, static (in ruling No. 19/2020) and dynamic (in ruling No. 609/2020), but this point is not expressly addressed in ruling No. 19/2020.

Also in light of these remarks, where a business – as a core activity – collects, organizes and/or analyzes data, in order to provide raw/structured data and data analytics, the most appropriate character is profit: in most cases, these activities require material investments, R&D and specialistic skills, which are applied to provide a service.⁴³

With regard to profit, a remark should be made in light of certain assessment activities carried out by the Tax Authorities towards distributors of trademarked goods.

In this context, the Tax Authorities claimed that, under certain circumstances, the Cost of Goods Sold (COGS) embedded a component for the use of the trademark and requalified a portion of COGS as notional royalty, on which withholding tax applies.

While it cannot be excluded that the Tax Authorities might in principle replicate the same rationale to services rendered by leveraging on an IP-intensive background, this interpretation is highly debatable⁴⁴ and so far, case-law has rejected it.⁴⁵

1.3. Source

While residents are taxed according to the worldwide income principle,⁴⁶ non-residents are taxable only on their Italian-source income.

Source is determined according to the categories of income provided for taxation of resident individuals (*i.e.*, for this analysis, self-employment, business, or other income); royalty income, however, constitutes an exception, insofar its tax treatment is governed by a specific source rule regardless of the category of income in which royalty income falls into.

Source rules for royalty, gains and profits

With respect to royalty, the relevant source rule revolves around the payor and provides as follows: "income derived from the utilization of IP works, patents, trademarks, processes, formulae and information concerning industrial, commercial or scientific experience paid by the Italian state, an Italian resident person or an Italian PE of a non-resident" is deemed

⁴² Private Ruling No. 609/2020, on which see R.-A. Papotti-C. Setti della Volta, *supra*, p. 57.

⁴³ OECD, *Tax Treaty Characterisation*, *supra*, para. 35.

⁴⁴ M. Antonini-R.-A. Papotti, *Royalty "occulte" e transfer pricing: la giurisprudenza apre un varco*, in CT, No. 14/2018, p. 1077.

⁴⁵ Provincial Tax Court of Milan decisions No. 442/2019 and No. 7134/2017, both in favor of the taxpayers.

⁴⁶ Italy taxes residents on their worldwide income and relieves double taxation through the credit method. Art. 165 ITC provides for a unilateral tax credit and certain procedural rules, which – in general terms – apply also to foreign tax credit granted by DTTs entered into by Italy.

Italian-sourced.⁴⁷ This rule has been interpreted as excluding source taxation in relation to the transfer of IP from a non-resident to a resident.⁴⁸

With respect to gains and profits, the relevant source rules vary depending upon the allocation to the relevant category of income, *i.e.*, self-employment, business, or other income.

Self-employment income is deemed Italian-sourced if the activities are performed in Italy,⁴⁹ while business income is deemed Italian-sourced if derived through a PE located in Italy.⁵⁰

In general terms, other income is deemed Italian-sourced if derived from properties located in Italy or activities performed therein.⁵¹

This source rule is relevant for the purposes of income from lease of equipment, which – from a domestic perspective – falls into the scope of other income: income from lease of equipment is Italian-sourced if the equipment is located in the Italian territory. If the equipment (such as cars, trains, ships, aircrafts, etc.) is used both in Italy and abroad, Italian source will occur to the extent that equipment is used “preponderantly” in Italy; otherwise, partial but not preponderant use in Italy would determine no source right for Italy.⁵²

Royalty income is subject to a 30% final withholding tax.⁵³ This rate is applied to the taxable portion of royalty income, which is equal to 75% (*i.e.*, effective tax rate equal to 22,5%) if income is received by the author/inventor⁵⁴ or by a person who purchased IP for consideration.⁵⁵

The same 30% withholding tax applies to self-employment income, if activities are performed in Italy, and to income from lease of equipment located in Italy; no withholding tax applies to business income.⁵⁶

This latter withholding tax applies to the extent that income is paid by a withholding agent; otherwise, non-residents must file a tax return, reporting the relevant income and the applicable withholding tax, possibly reduced under DTTs.⁵⁷

Source rules for data transaction income

In light of these principles, and of the above conclusion on characterization, in most cases source taxation should apply only if an Italian PE occurs. However, should the data transaction characterize as royalty, a withholding tax may apply, unless an exemption is available.

⁴⁷ Art. 23(2)(c) ITC.

⁴⁸ M. Piazza, *Guida alla fiscalità internazionale*, 2004, p. 766, who also refers to the parliamentary explanatory report to art. 23 ITC.

⁴⁹ Art. 23(1)(d) ITC.

⁵⁰ Art. 23(1)(e) ITC.

⁵¹ Art. 23(1)(f) ITC.

⁵² Circular Letter No. 42/1981, para. II.7.

⁵³ Art. 25(4) WHT Code.

⁵⁴ Art. 54(8) ITC. Taxable income is reduced to 60% (*i.e.*, effective tax rate equal to 18%), if author/inventor is younger than 35.

⁵⁵ Art. 71(1) ITC. Acquisition of IP through gift or inheritance does not qualify for the reduced tax base.

⁵⁶ Art. 25(2 and 4) ITC.

⁵⁷ Private Rulings No. 379/2019 and 41/2018, regarding non-residents receiving interest from individuals in their personal capacity.

Interpretative difficulties may occur in case income arises within self-employment, due to the need to locate the place of performance. However, if core activities (*i.e.*, those aimed at structuring and analyzing data) are not run from Italy, performance would reasonably occur abroad. Overall, this category of income should occur rarely, also due to automation of processes; further, DTTs entered into by Italy also adopt a PE threshold for self-employment income.

Finally, it should be excluded that data transactions may give rise to Italian-sourced income from lease of equipment which has a strong link with tangible assets; lease of equipment may apply to servers, but not to the data stored therein.

1.4. Nexus

Italian tax laws provide for a PE threshold which is mostly aligned with article 5 MTC.⁵⁸ However, PE may be an area of potential development with regard to data mainly for two reasons.

First, effective from 2018 Italy enacted a “significant economic presence” (“SEP”) threshold.

Second, for a long time the Italian Tax Authorities have been assessing undisclosed PEs in a quite aggressive and “novel” manner.⁵⁹ In the area of digital economy, hidden PEs have been found within Italian subsidiaries of various tech giants, often through the identification of teams located in Italy carrying out meaningful functions:⁶⁰ although these cases are not strictly connected to data, they should be looked at prospectively and most recent developments seem to confirm this approach.

This being said, as to SEP, it amounts to PE “a significant and continuous economic presence in Italy, construed in a way that a physical presence in the Italian territory does not occur”.⁶¹

This provision raised several doubts: on the one hand, the SEP is included in the “positive list” of physical PE and, on the other, it has an anti-avoidance flavor.⁶²

Certain scholars deemed that the SEP constitutes a new case of PE, other than a physical and personal one.⁶³ This would be supported by the similarity with the SEP concept at OECD level⁶⁴ and the proposal of the EU Directive on significant digital presence.⁶⁵ Under a certain interpretation, direct and indirect e-commerce models now fall into the scope of SEP.⁶⁶

By contrast, others argued that SEP is not a new case of PE, insofar as it does not set out SEP indicia from which the PE would result, but rather constitutes an anti-avoidance

⁵⁸ Art. 162 ITC.

⁵⁹ At least, after Supreme Court decisions No. 3367/2002, 3368/2002, 3369/2002 and 7682/2002, putting forward the concept of “multiple permanent establishment” in the well-known *Philip Morris* case.

⁶⁰ Guardia di Finanza, *supra*, pp. 259 et seq., with an extremely thorough analysis of certain cases.

⁶¹ Art. 162(2)(f-bis) ITC.

⁶² Certain issues on the – at the time – potential enactment of a PE based on SEP had been anticipated by G. Maisto, *Web economy, da concertare la territorialità allargata*, ne *Il Sole 24 Ore*, 12 April 2014, p. 14.

⁶³ S. Mayr-G. Fort, *La nuova definizione di stabile organizzazione (art. 162 del TUIR)*, in *BT*, No. 7/2018, pp. 496-497.

⁶⁴ OECD, *Action 1, supra*, para. 277.

⁶⁵ EU Commission Com(2018)147, 21 March 2018, Proposal for a Council Directive on significant digital presence.

⁶⁶ M. Leo, *Le imposte sui redditi nel testo unico*, 2020, p. 2903.

provision aimed at countering certain strategies of hiding physical presence in Italy.⁶⁷

Notwithstanding the specific character of the SEP provision, there is no doubt that this provides for a requirement that non-residents' operations must be construed in a way that physical presence is avoided, which may exclude from the SEP scope all businesses that – inherently – do not have a physical presence.⁶⁸ This should be the case of all businesses which are purely digital and whose operations are not construed so that physical presence in Italy is avoided.

This leads us to certain recent developments on whether a purely digital business may have a physical presence in Italy, constituted by servers and fiber optic cables,⁶⁹ an issue that mixes traditional and innovative traits.

With respect to servers as PE, Italy used to have a specific provision, under which it did not *per se* amount to a PE “the availability under any right or arrangement of computers and connected auxiliary equipment for the collection and transmission of data and information, aimed at the sale of goods and services”.⁷⁰

However, effective from 2018, this provision has been repealed: according to certain scholars, this constitutes an acknowledgment that – after the 2015 Action 1 Report – the exclusion of servers was too ambiguous;⁷¹ while others stress the importance of a case-by-case analysis.⁷² It is also worth noting that the collection and transmission of information through a server may still fall into the scope of the current “negative list”.⁷³

In this context, pending the rule on exclusion of servers, the Tax Authorities held that a server located in Italy, at the disposal of a French company offering online videogaming services upon subscription, could qualify as PE, to the extent that the server was exclusively dedicated to such company and the activity carried out through the server qualified as direct e-commerce.⁷⁴ Most importantly, the French company was the owner of the server and in charge of the connected maintenance: this pattern must be distinguished from basic web-hosting services, which do not lead to a PE constituted by the websites hosted in the server.⁷⁵

On the other hand, case-law does not appear to have dealt with this issue, with the exception of a Supreme Court decision where a PE case encompassed *inter alia* the presence of a server and a software in Italy.⁷⁶ However, this decision did not address whether a server may *per se* give rise to a PE, but rather held that a server and a software may enhance the activities of a sales team whose members acted on the Italian territory. It was thus the combination of the server/software and employees which led to the identification of a PE.

This being the traditional background, press sources and certain academic works published by the Italian Tax Police recently focused the attention on providers of digital contents and their infrastructure.⁷⁷

⁶⁷ Assonime, Circular Letter No. 15/2018, pp. 67-68; D. Conti, *Luci e ombre dei diversi volti della “nuova” stabile organizzazione (anche “virtuale”)*, in CT, No. 45/2018, pp. 3470-3471.

⁶⁸ M. Antonini-M.L. Mariella, *Stabile organizzazione: la parola ad Assonime*, in CT, No. 34/2018, p. 2596.

⁶⁹ According to press sources, the case regards a digital content provider. H. van den Hurk, *Tax and the Digital Economy – Will Pillar One be the solution?*, in *The EC Tax Journal*, Vol. 18, February 2020, pp. 135-136.

⁷⁰ Art. 162(5) ITC, in force until 2017.

⁷¹ S. Mayr-G. Fort, *supra*, p. 502.

⁷² Guardia di Finanza, *supra*, pp. 306-307.

⁷³ Art. 162(4)(e) ITC.

⁷⁴ Ruling No. 119/E/2007.

⁷⁵ M. Giaconia-L. Greco, *Quando il server è stabile organizzazione*, in CT, No. 28/2007, p. 2324.

⁷⁶ Supreme Court decision No. 5649/2015.

⁷⁷ Guardia di Finanza, *supra*, pp. 301 et seq..

This literature claims that a Content Delivery Network, made of servers physically located in Italy and set up in order to offer an improved Quality of Experience (*e.g.* to prevent latency), constitutes a physical PE.⁷⁸ This would be also in light of the fact that the servers forming the network are provided with a smart software, and are able to collect information about users' behavior and to interact with the clients.

Many aspects of the case are unclear, but a PE should be excluded when the relevant servers are operated by a cloud-computing service provider; further, it should be ascertained whether the activity performed through these servers is auxiliary and what profits should be attributed to them.

Part Two: Application of treaty principles

2.1. General overview

DTTs entered into by Italy generally follow the 1977 MTC.

However, with regard to royalty income, Italy retains source taxation at different rates,⁷⁹ depending upon the DTT, generally ranging from 5% to 20%, save under certain DTTs which exempt royalty income.

In following the 1977 MTC, Italy still qualifies income from lease of equipment as royalty, despite the 1992 amendments to the MTC.⁸⁰

Within the EU environment, source taxation on royalty may be excluded pursuant to the Interest and Royalty Directive, where applicable.⁸¹

Source taxation does not apply in relation to gains on movable assets,⁸² while a PE is required to tax not only business profits, but also self-employment income, thus limiting Italian source taxation under domestic law where source rule is the place of performance.

In the next section, a selection of issues on royalty, gains and profits are considered.

2.2. Detailed comments

The definition of “royalty” included – in most cases – in article 12 of DTTs entered into by Italy, is generally consistent with the 1977 MTC.

As to the IP-rights covered by DTTs, it is worth mentioning that a number of DTTs

⁷⁸ Guardia di Finanza, *supra*, p. 303. The author notes that, in the past, the Italian Tax Authorities held that a train track and a station owned by a Swiss company constitute a PE: Ruling No. 282/E/1995.

⁷⁹ Observation registered by Italy in OECD Commentary to art. 12 MTC, para. 37.

⁸⁰ Observation registered by Italy in OECD Commentary to art. 12 MTC, para. 41.

⁸¹ Analysis of the Interest and Royalty Directive is out of the scope of this report. In extreme summary, exemption is available upon fulfilling the following requirements: 1) EU taxable parent, subsidiary or sister company, depending upon the relevant flows; 2) 25% direct shareholding; 3) 1-year uninterrupted holding period. Exemption covers consideration for the use of: 1) copyright of literary, artistic or scientific work, including cinematograph films and software; 2) patent, trademark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience; 3) industrial, commercial or scientific equipment.

⁸² Few DTTs provide for an exception for substantial shareholdings.

expressly include income from “software” in the definition of “royalty”; further, in certain DTTs, royalty also includes income from “other intangible property”;⁸³ no DTT mentions “database”.

In this context, if article 12 of DTTs does not define certain terms, reference should be made to the definitions of domestic law.⁸⁴ Where a conflict of interpretation arises, reference should be made to the domestic definition of the source state.⁸⁵

This being said, first, the relevant DTTs cover software with a slightly different wording: “software”,⁸⁶ “computer software”,⁸⁷ “informatic software”,⁸⁸ “computer programs”⁸⁹ or “electronic processors programs”⁹⁰ or “electronic calculator programs”;⁹¹ slightly different wordings may have been influenced by languages of the relevant states and, in particular, by the historical context of signing, whereas:

- the DTT with the Soviet Union (1985) refers to “electronic calculator programs”;
- the DTT with Bulgaria (1988) to “electronic processors programs”;
- the DTT with South Africa (1995) to “computer programs”;
- the DTT with Iceland (2002) to “informatic software”, while later DTTs simply refer to “software”.

At the OECD level, software is defined as “a program, or series of programs, containing instructions for a computer (...) for the operational processes of the computer itself (operational software) or for the accomplishment of other tasks (application software)”.⁹²

In light of this broad definition, it seems reasonable that the various treaty definitions point to a single concept, commonly known as “software”, which applies to any program of instructions for operational processes of a computer or, in principle, hardware.

Secondly, the definition of IP may be relevant where a DTT provides for different rates in relation to IP-rights.

With regard to “software”, it should be noted that in most cases “copyright” will cover software. However, definition as “software” prevents conflicts in case of different treatment between copyright and other rights.

A similar issue may arise with respect to data or databases, which – as seen – may be protected under the statutes of copyright, *sui generis* right and trade secret.

Further, a question arises on whether data transactions may qualify as technical service, where provided.⁹³

Italy does not enact a concept of “technical service” and services are sourced in Italy upon PE; this concept however is relevant for foreign tax credit purposes.⁹⁴

In this respect, it should be excluded that data transmission qualifies as “technical

⁸³ DTTs with Canada and Chile.

⁸⁴ Art. 3(2) MTC. Ruling No. 143/E/2017, with regard to the DTT with France.

⁸⁵ Supreme Court decision No. 21220/2006, with regard to the DTT with the United States.

⁸⁶ DTTs with Armenia, Chile, the People's Republic of China, Congo, Denmark, Hong Kong, France, Israel, Panama, Qatar, Romania, San Marino, Saudi Arabia.

⁸⁷ DTTs with Azerbaijan, Canada, Moldova, United States.

⁸⁸ DTT with Iceland.

⁸⁹ DTT with South Africa.

⁹⁰ DTT with Bulgaria.

⁹¹ DTT with the Soviet Union, currently in force with Kyrgyzstan and Tajikistan.

⁹² OECD Commentary to art. 12, para. 12.1.

⁹³ DTTs with Brazil, India, Sultanate of Oman, Panama, Soviet Union, Uganda and Vietnam.

⁹⁴ Private Ruling No. 23/2019, with regard to the DTT with Albania.

service”: while undoubtedly technical skills are used to collect, structure, and analyze data, the provision of a dataset *per se* does not qualify as a technical service.⁹⁵

At last, it should be considered that the above-mentioned definition of “other intangible property” is certainly broad to cover data and database: royalty income will occur subject to the exploitation of these intangibles.

As far as gains are concerned, the transfer of an intangible asset, even if IP-protected, qualifies as a gain, at least insofar as the transfer regards full ownership of IP rights; and this is despite recent guidelines⁹⁶, which seem to refer to royalty income in a case of full alienation of neighboring rights and appear to contrast both with the Commentary⁹⁷ and an express observation registered by Italy.⁹⁸

A final issue regards the interaction between the SEP and PE under DTTs. Given the standard language adopted by Italy in DTTs, it should be excluded that the SEP applies; however, the relevant SEP provision is extremely vague and is expected to give rise to uncertainties.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

No rule or official guidelines deal with data transactions. However, there appears to be consensus on the fact that the cycle of data may be broken down into the following functions:

- Collection;
- Cleanse;
- Structuring;
- Analysis;
- Storage and indexing.

In this context, according to certain scholars, “the value generated can be split, attributing to the processing activities (...) via (...) hardware and software a cost-plus markup (...) and to the data provided by the users the residual value”.⁹⁹

Under a different line of interpretation, customers are “active” and may be part of the significant people functions that result in the attribution of the economic ownership of assets and risks to a PE.¹⁰⁰

⁹⁵ OECD, *Tax Treaty Characterisation*, *supra*, paras. 41-42.

⁹⁶ Private Ruling No. 493/2020.

⁹⁷ OECD Commentary to art. 12, para. 8.2.

⁹⁸ OECD Commentary to art. 12, para. 27.

⁹⁹ Y. Brauner-P. Pistone, *Some Comments on the Attribution of Profits to the Digital Permanent Establishment*, in *Bulletin for International Taxation*, 2018, No. 4a.

¹⁰⁰ R. Petruzzi-S. Buriak, *Addressing the Tax Challenges of the Digitalization of the Economy – A possible Answer in the Proper Application of the Transfer Pricing Rules?*, in *Bulletin for International Taxation*, No. 72, 2018, ch. 5.3.2.1.

Also, it has been argued that a standard DEMPE analysis of data is not possible, because data are “developed/created/built by the unconscious contribution of the users”, while storage and analysis are the core activities of data-driven businesses.¹⁰¹

Part Four: Special regimes

4.1. General overview

This section provides some highlights on the Digital Service Tax (“DST”), certain tax incentives which may relate to data, and the barter theory addressed in academic work.

4.2. DST

Effective from 2020, Italy enacted a DST,¹⁰² which is largely aligned with the Proposal of Directive by the EU Commission (the “EU DST Proposal”).¹⁰³ The Tax Authorities issued guidelines in 2021.¹⁰⁴

The DST aims at fixing the misalignment between where profits are taxed and where value is created, assigning taxing rights to the jurisdiction where users are located.

The DST applies to (resident and non-resident) businesses that, individually or as a consolidated group, exceed the following thresholds:¹⁰⁵

- total worldwide revenues over Euro 750.000.000,00;
- Italian revenues over Euro 5.500.000,00¹⁰⁶ from certain digital services.

Among qualifying digital services, there is the transmission of data collected from users and generated through the use of a digital interface.¹⁰⁷

Revenues from data transmission are relevant to Italy to the extent that the user providing data is located therein. This occurs when data – generated by the user through a device used in the Italian territory to browse a digital interface – are transmitted against consideration in a certain tax period.¹⁰⁸ A device is deemed used in Italy with reference to the IP address or other geolocation systems.¹⁰⁹

This is mostly in line with the EU DST Proposal, which however refers to the “access”,¹¹⁰

¹⁰¹ P. Ludovici, *Comments on the Possible Solutions to the Tax Challenges Arising from the Digitalisation of the Economy*, 6 March 2019, pp. 7-8.

¹⁰² Art. 1(35-50) of Law No. 145/2018, as amended by art. 1(678) of Law No. 160/2019.

¹⁰³ Com(2018) 148 final.

¹⁰⁴ Circular Letter No. 3/E/2021.

¹⁰⁵ Art. 1(36) of Law No. 145/2018.

¹⁰⁶ This threshold considers that the Italian market is 11% of the EU market and applies this percentage to the Euro 50.000.000,00 threshold of EU DST Proposal.

¹⁰⁷ Art. 1(37)(c) of Law No. 145/2018: for the purposes of this report, other qualifying digital services (*i.e.*, targeted advertisement and multi-sided interfaces) are not considered. Also, certain exclusions and exemptions apply.

¹⁰⁸ Art. 1(40)(c) of Law No. 145/2018.

¹⁰⁹ Art. 1(40-bis) of Law No. 145/2018.

¹¹⁰ Art. 5(2)(c) of the EU DST Proposal.

rather than to the “browsing” of a digital interface: this may give rise to double taxation in case of users travelling across borders.¹¹¹

The portion of taxable revenues is equal to the total revenues from digital services in proportion to the pertinent revenues generated in Italy. As to data transmission, this percentage is determined in proportion to the number of users from whom the data transmitted in a given tax period have been generated in Italy (according to the location of the users).¹¹² It has been noted that the DST tax base may be “over-inclusive”, as a significant part of the value-creation derives from intangibles and skills that may not be located in Italy; further, data collected are raw data, while transmitted data against consideration are generally organized and analyzed.¹¹³

The DST applies at a 3% rate and is deductible from corporate income tax, if due.¹¹⁴

The DST will be repealed as of 2023, following consensus reached at the OECD G-20 Inclusive Framework level; along with other DST States, Italy agreed to a Credit Amount to align DST with Pillar 1 outcome.¹¹⁵

4.3. Incentives

The Italian tax system currently encompasses a number of incentives that may relate to data.¹¹⁶

Starting from 2020, Italy enacted a tax credit for investments in certain capital assets, including intangibles, as part of the Italian project for “Industry 4.0”, amended and enhanced for 2021.¹¹⁷

For the purposes of this report, businesses may benefit from a tax credit equal to 15%-20% of purchase cost of intangible assets listed in Annex B to Law No. 232/2016.¹¹⁸ Among these assets, there are software, IT systems, platforms and applications which: (i) enable forecasting, modelling, simulation, testing and prototyping of industrial processes for product design and development, and/or the digital storage within IT systems of product life-cycle data to perform big data analytics; and (ii) process and analyze data from Internet-

¹¹¹ Risks from inconsistent application of local levies are highlighted by Y. Brauner-P. Pistone, *Adapting Current International Taxation to New Business Models: Two Proposals for the European Union*, in *Bulletin for International Taxation*, 2017, No. 12, para. 2.

¹¹² Art. 1(40-ter) of Law No. 145/2018.

¹¹³ D. Stevanato, *A Critical Review of Italy's Digital Services Tax*, in *Bulletin for International Taxation*, July 2020, p. 416. Also, G. Sprague, *A Critical Look at the European Commission Staff Impact Assessment Relating to the Proposed EU Directives on Taxation of the Digital Economy*, in *Tax Management International Journal*, No. 7, 2018, pp. 468 et seq., notes that, from certain calculation, the EU DST Proposal would lead to an 87%/13% profit split allocation in favor of users' location, which does not reflect the fact that “aggregation, structuring, processing, and analysis of data does not occur at the user's location”.

¹¹⁴ Pursuant to art. 99 ITC. Circular Letter No. 3/E/2021, par. 10.

¹¹⁵ Joint statement available at <https://www.mef.gov.it/ufficio-stampa/comunicati/2021/documenti/195-JOINT-STATEMENT-FROM-AUSTRIA-FRANCE-ITALY-SPAIN-THE-UNITED-KINGD....pdf>

¹¹⁶ Ruling No. 46/E/2018 held that Internet-of-Things technology and big data analytics tools to perform machine learning and cognitive marketing do not fall into the scope of the R&D tax credit provided by art. 3 of Law Decree No. 145/2013, now replaced by R&D&I tax credit pursuant to art. 1(198-209) of Law No. 160/2019, insofar as this technology is already available and widely used.

¹¹⁷ Art. 1(184-197) of Law No. 160/2019; art. 1(1051-1063) of Law No. 178/2020.

¹¹⁸ Up to Euro 700.000,00 and Euro 1.000.000,00 depending upon the time of purchase, over a three-year period.

of-Things sensors to perform data analytics and visualization, simulation and forecasting.

Starting from 2015, Italy enacted a patent box regime, in line with the OECD nexus approach.¹¹⁹

Taxpayers that perform qualifying R&D activities in relation to certain IP assets are eligible for the patent box regime. Qualifying IP assets are patents, copyrighted software, processes, formulas, IP-protectable designs, models, and know-how. As of 2017, income arising from licensing (*i.e.*, royalties) and direct use of suitable IP (or a portion thereof) may qualify for a 50% exemption, under a nexus-driven calculation. This exemption applies to corporate income tax and regional business tax.

Big data are not expressly mentioned by patent box legislation, nor by the guidelines. We note, however, that the Tax Authorities have drawn a distinction between know-how and “commercial know-how,” such as “lists of providers and clients, containing aggregate information, which can be used by businesses for direct marketing activities”.¹²⁰ In turn, in line with international consensus, the Tax Authorities defined know-how as an “undivulged complex of technical information, that may be patented or not, needed for the industrial reproduction of a product or a process, which constitutes a complement of what a manufacturer cannot know through the analysis of a product or the general knowledge of the progress of a technique”.¹²¹

By distinguishing know-how and “commercial know-how”, the Tax Authorities carve-out of the scope of the patent box regime business information which is protected as trade secret. This position is highly debatable¹²² and a case-by-case approach is advisable, especially for businesses that are intensively data-driven (*e.g.* social and networking platforms). On the other hand, designing, updating, and customizing a copyrighted software are eligible activities.¹²³

The patent box regime has been repealed as of 21 October 2021 and substituted by an enhanced deduction up to 190% of eligible costs. Pending patent box elections should be valid until 2024.

In the wake of COVID, an extraordinary step-up of tax basis of intangible assets was provided subject to a 3% substitute tax.¹²⁴ Due to the loss of revenues caused by the amortization of the stepped-up tax basis, the draft Budget Law for 2022 provided for that the stepped-up amount of intangibles ordinarily amortizable over a eighteen-year period (*i.e.*, trademarks and goodwill) shall be amortized over a fifty-year period, unless an additional substitute tax at 9%-11%-13% is paid.¹²⁵ Intangibles amortizable over a shorter period (*e.g.* patents, know-how and software) should instead keep their ordinary amortization period, and this should apply also to databases.

¹¹⁹ Art. 1(37-45) of Law No. 190/2014.

¹²⁰ Circular Letter No. 11/2016, para. 4.1.6.

¹²¹ Circular Letter No. 42/1981; Circular Letter No. 11/E/2011, para. 4.1.5. OECD Commentary to art. 12 of the OECD Model Tax Convention (“MTC”), 2017, para. 11.

¹²² R.-A. Papotti-P. Bertoni, “L’Ambito Oggettivo di Applicazione del ‘Patent Box’”, in *Patent Box* 9 (2016).

¹²³ Ruling No. 28/E/2017.

¹²⁴ Art. 110 of Law Decree No. 104/2020.

¹²⁵ Art. 160 of the draft Budget Law for 2022.

4.4. Barter treatment

Scholars dealt with barter treatment from VAT and income tax perspectives.

As to VAT, a barter transaction cannot, in principle, be excluded: a provider allows users to access certain digital services in exchange of the consent to collect data and preferences.¹²⁶

However, there appears to be consensus on the difficulties to support this approach, in particular: (i) the identification of a sufficiently direct link between the supply and its consideration;¹²⁷ and (ii) the economic evaluation of the data provided by the users,¹²⁸ in particular with respect to raw data or data on a stand-alone basis.

Part Five: Indirect tax

As far as VAT is concerned, processing and provision of data is a service that takes place in the country of the customer in B2B transactions (*i.e.*, through reverse charge) and in the country of the provider in B2C transactions, unless the consumer is domiciled in an extra-EU jurisdiction, in which case the service takes place in the country of the consumer.

Data transfer qualifies as service as well, if the relevant data is IP-protected. The transfer of a database does not amount, *per se*, to the transfer of a going concern, which would be subject to *ad valorem* registration tax.¹²⁹

If a certain service is electronically supplied, this service takes place in the country of the consumer in B2C transactions, to the extent that overall annual consideration paid by Italian consumers exceeds Euro 10.000,00 (threshold enacted as of 2019).¹³⁰ Providers which are not established in Italy may comply through the Mini-One-Stop-Shop regime.

Part Six: Tax accounting

Corporate income tax is determined by applying book-to-tax adjustments to the profit or loss arising from P&L. Big data transactions are not expressly addressed: pertinent general principles will be considered.

6.1. Recognition of transactions

No specific rule or guidelines are available.

¹²⁶ G. Beretta, *VAT and the Sharing Economy*, in *World Tax Journal*, August 2018, pp. 381 et seq.. Reference is made also to EESC, "Taxation of the collaborative economy", 19 October 2017.

¹²⁷ G. Beretta, *supra*, p. 424, points out that the direct link must not only exist, but also be sufficiently tight.

¹²⁸ Although difficulties in evaluation of goods or services do not prevent VAT barter treatment, it is acknowledged that it is controversial how to value the data that a single user makes available to the service provider (see F. Antonacchio, *Big data al bivio tra IVA e imposta sui servizi digitali*, in *Il Fisco*, No. 35/2020, p. 3358; D. Stevanato, *supra*, pp. 415-417; Commission Staff Working Document, *Impact Assessment*, SWD(2018) 81 final/2, p. 56).

¹²⁹ Private Ruling No. 609/2020.

¹³⁰ Art. 7-sexies(1) (f) VAT Law.

6.2. Capitalization and amortization

Expense deduction is, in principle, subject to P&L recognition.

Certain intangible assets, such as patents and copyright, are recorded at purchase or creation cost, including certain ancillary costs, which can be capitalized, if certain conditions are met, until feasible use of the asset begins.

The tax basis of intangible assets is equal to the cost gross of amortization charges; ancillary, related financial and certain other expenses are capitalized.¹³¹

As to tax deductibility, costs of patents and copyright is amortized over a two-year period,¹³² while cost of other IP rights is amortized on a systematic basis over their useful life.¹³³ A similar treatment applies to expenses with a deferred benefit.

With specific reference to software, three categories should be distinguished:

- basic operational software, equated to hardware and subject to depreciation as a tangible asset;¹³⁴
- copyrighted application software, treated as intangible asset and subject to amortization over a two-year period;
- non-copyrighted application software, not deemed as a proper intangible asset, but connected costs are deductible on a deferred basis, if useful over a number of years.

Data analytics tools are likely to fall into the scope of application software.

The Tax Authorities maintained that the purchase cost of the already mentioned Member-List should be capitalized and amortized over a two-year period.¹³⁵ This however may not be the case of big data, whose collection/structuring/analysis costs are borne on an ongoing basis as core activity: this seems coherent with a position under which big data cannot be capitalized as intangible assets, at least in the environment of International Accounting Standards (IAS).¹³⁶

Part Seven: Other

No other tax issues appear relevant.

Part Eight: Reference Case Studies

Data Brokers / Information Resellers

Website Co realizes business profits from letting Broker Co apply the APIs on its website: unless a PE occurs in Broker Co's jurisdiction, no source taxation will apply to Website Co.

¹³¹ Art. 110 ITC.

¹³² Art. 103(1-first sentence) ITC.

¹³³ Art. 103(2) ITC.

¹³⁴ Art. 102 ITC. See G. Andreani-A. Dodero-G. Ferranti, *Testo Unico Imposte sui Redditi*, 2020, p. 2067.

¹³⁵ Private Ruling No. 609/2020.

¹³⁶ I. Vacca, *Adeguatezza dei principi contabili internazionali per immobilizzazioni materiali e immateriali*, in *Assonime – Note e Studi*, No. 2/2017, p. 4.

Broker Co realizes business profits from the service of providing datasets, either in copies or customized.

It is not specified if the dataset constitutes IP, but the fact that Customers cannot sell it should exclude exploitation, hence royalty character.

DST may apply to Broker Co's revenue from the transfer of datasets with respect to data collected through Website Co, should the API qualify as a digital interface of Broker Co (and not of Website Co). DST may apply to user contributed data from social media websites, acquired by Broker Co, but social media websites should be subject to DST (not Broker Co).

Data Feeds

Animal Data Co realizes business profits from fees paid by Information Site Co, with no source taxation.

In case no DTT applies, domestic SEP rule should be excluded, given that Animal Data Co has no physical presence, and its business is not construed in a way that physical presence is avoided. This aspect, however, should be closely monitored, in light of ongoing interpretations and developments.

Where Information Site Co grants Animal Data Co NGO to display its logo, in exchange of data feeds, barter treatment cannot be excluded, also in light of the fact that both providing data feeds and making space available on the website are commercial activities. However, no royalty character (and thus no withholding obligation) should arise, given that data are not exploited for business purposes.

Performance Data Analytics

Character

In general terms, monitoring services provided by Service Co to equipment purchasers give rise to business profits. Further, certain DTTs may qualify this service as technical service, subject to source taxation.¹³⁷ In this latter case, Italy would not apply source taxation, but – from a residence perspective – would grant foreign tax credit, subject to treaty provision.¹³⁸

This treatment applies, for instance, where heavy equipment purchasers purchase additional terms (after the first year) according to a service contract with Service Co.

By contrast, where the monitoring service is sold with no specific consideration on a bundled basis, together with heavy equipment, the purchase of equipment appears predominant over monitoring services: this seems confirmed by the short contractual length of the bundled service (one year) and the elective nature of additional terms.¹³⁹ In this situation, Equipment Co should recognize a fee to Service Co under transfer pricing rules.

¹³⁷ DTTs with Brazil, India, Sultanate of Oman, Panama, Soviet Union, Uganda, and Vietnam.

¹³⁸ Private Ruling No. 23/2019.

¹³⁹ Private Ruling No. 258/2020.

Nexus—Sensors

No guidance regarding sensors is available. In finding suitable existing categories, sensors might be equated to servers, given that also sensors combine hardware and software.

In this context, where sensors applied to heavy equipment are owned by the purchasers, no nexus of Equipment Co or Service Co should be found: data transmitted by the sensors do not entail physical presence, akin to a website.

By contrast, where sensors applied on consumer appliance products are owned by Service Co, it needs to be explored whether such sensors may amount to a PE and, if so, the amount of income that should be attributed to it.

First, sensors combine hardware and software components: therefore, where owned by Service Co and sufficiently “fixed” in the products, they may constitute a fixed place of business of this latter company. This seems coherent with case law which, although in a very different setting, endorsed the possibility that multiple education centers may constitute a single PE.¹⁴⁰

Second, it needs to be ascertained whether Service Co carries on a business “through” the sensors and, in this case, if the negative list may apply.

Service Co collects and receives information which are needed to provide after-sales automated services. It thus seems that a part of Service Co’s business is carried on through the sensors. It should be recalled that there is conflicting case law in this area: while certain case law held that—for a PE to exist—the fixed place should perform a full cycle of business,¹⁴¹ from a different perspective, certain other case law held that a PE is not required to be able to produce income.¹⁴²

Also, and although sensors provide information to Service Co only, it should be excluded that this activity may fall into the scope of the exception provided in the negative list for “collecting information”:¹⁴³ indeed, collection of information is not ancillary to the business cycle of Service Co.

In light of this analysis, it cannot be excluded that sensors may amount to a PE of Service Co: it is thus appropriate to address income attribution to the PE, under a functionally separate entity approach, endorsed by Italy.

To this end, sensors perform an automated, low-value, segment of the business cycle of Service Co, in light of the fact that the high-value segment of the services is provided by the software and the database: accordingly, very limited risks of failure should be attributed to the sensors¹⁴⁴ and, also in light of full automation of Service Co, little or no profit would be attributed to such a PE.¹⁴⁵

¹⁴⁰ Supreme Court decision No. 32078/2018.

¹⁴¹ Supreme Court decision No. 21693/2020.

¹⁴² Supreme Court decision No. 32078/2018.

¹⁴³ Art. 5(4)(d) MTC.

¹⁴⁴ OECD, *Attribution of Profit to a Permanent Establishment Involved in Electronic Commerce Transactions*, 2001, paras. 60–61.

¹⁴⁵ OECD, *2010 Report on the Attribution of Profits to Permanent Establishments*, 2010, para. 66.

Data centers

Data centers owned by Service Co may constitute a PE, in light of the fact that such centers are hardware that host data and software which are core to the activity of Service Co (*i.e.*, no auxiliary character).

By contrast, data centers should not constitute a PE of Service Co, to the extent that such centers are owned and operated by a third-party service provider or by an affiliate entity acting as such. In this latter case, however, the following should be considered.

Service Co's activity performed through the software and the database does not amount to a PE due to its non-physical character, rather than to its auxiliary character: therefore, the anti-fragmentation rule – where enforceable – should not be applicable.

On the other hand, the possibility that a PE of Service Co arises according to the SEP rule should be explored under the facts and circumstances of the case.

Analytics Based Consultancies

Consultant Co realizes business profits from advisory services.

The profits are taxable in the jurisdictions of the educational institutions only if a PE of Consultant Co arises therein, unless a DTT provides for source taxation of advisory services.¹⁴⁶ In this latter case, Italy would not apply source taxation, but – from a residence perspective – would grant foreign tax credit, subject to treaty provision.

Consultant Co realizes business profits also from fees for database access.

Indeed, researchers do not exploit the database, but use it in the course of their activity: permission to commercialize the research is irrelevant for the purposes of exploitation.

¹⁴⁶ DTTs with India, Sultanate of Oman, Panama, Uganda, and Vietnam.

Summary and conclusions

Japan is losing tax revenue on income derived from big data transactions because of traditional tax rules on new e-commerce business models, such as big data, which produces more profits without physical or human capital in a source state. Despite Japan's active contributions to Base Erosion and Profit Shifting (BEPS) Projects, this challenge has not yet been solved.

In principle, big data transactions require a platform providing the information technology (IT) infrastructure for their sales or services. Generally, the more significant in scale they are, the more profit they gain. Although there is no established definition of big data and its market size remains unknown, Japan does not have platforms comparable to the so-called Big Tech, which consists of the largest dominant companies in the IT industry. In this way, Japan may have assumed the position of a source state for most big data transactions.

This report provides an in-depth analysis of the existing Japanese tax system relating to big data transactions. It mainly explores taxation for corporations at the national level. The introduction covers the background of big data. It delves into the legal classification of big data and examines data protection techniques, which are crucial in ascertaining how the Japanese tax system treats big data.

Part one explains the basic principles of tax treatment on the legal character of income. The highlight is the existence of a permanent establishment (PE) and the attributed income. There have been several amendments to PE-related articles in the past, and important guidance has been provided in advanced rulings.

Part two reviews the application of tax treaties. In the Japanese legal hierarchy, treaties take precedence over domestic law, and consequently, the application of each treaty changes legal classifications and source rules under domestic law.

Part three examines transfer pricing taxation on big data transactions. The application of the transfer pricing rule depends on the facts and circumstances of each case. Since it is impossible to determine a calculation method for the cases provided, this section discusses the specific issues affecting intangible transactions, including big data.

Part four reconfirms that Japanese tax law does not have any particular provisions that apply to the development and sale of big data. It also notes that Japan has not enacted a

¹ LLM in Taxation (Georgetown University Law Center), National Tax Agency of Japan (on Leave).

² Deputy Director of Economic Treaty Division, International Law Bureau, Ministry of Foreign Affairs of Japan, LLM (Vienna University of Economics and Business (WU)).

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digital services tax or any similar tax on the acquisition and use of data.

Part five describes how the 2015 tax reform altered the Japanese consumption tax's criterion for determining the place of supply of specific electronic services to the "address of the service recipient" (destination principle). Even foreign platformers, like Big Tech, can be registered taxpayers under this system. Accordingly, the potential of consumption tax on new electronic transactions needs to be explored.

Part six analyzes basic rules of recognition standards and capital amortization of tax accounting regarding data transactions, including updates of current recognition standards and capital amortization rules for software essential for data transactions. There are no specific regulations for data transactions themselves.

In conclusion, the current Japanese tax system may not accommodate new businesses, such as big data transactions, which affects the amount of tax revenue collected from such companies. More specifically, corporation tax, withholding tax, and transfer pricing rules cannot fully encapsulate big data transactions. First, for corporation tax, it is difficult to find a PE in data transactions. Even if a source state successfully identifies a PE, the attributed income may be insignificant due to their limited human functions, as most data transactions are automated, and no human labor is required. In addition, the corporate tax rate has been reduced in recent years,³ resulting in a further decline in the amount of tax. Second, withholding tax on royalties has been exempted under several tax treaties since the 2004 revision of the Japan-US tax treaty. Third, transfer pricing taxation faces difficulties in transactions involving intangible assets. Whatever method is selected, it is challenging to find a comparable transaction and adjust the differences. On the other hand, consumption tax on specific cross-border services can barely catch big data transactions by foreign businesses, but unanswered questions remain regarding the extent of their compliance.

Fundamental reforms are needed to address these issues. However, the authors of this report choose to respect the global tax certainty reaffirmed in the 2019 G20 Osaka Declaration and do not seek unilateral measures for big data taxation in Japan. By coincidence, we came to the same conclusion as the Japanese branch report written twenty years ago. The report states that "(t)he discussion on the taxation of electronic commerce should proceed with due consideration to the development of new business models. At the same time, it should aim at a balanced revenue sharing in this diversified and pluralistic world."⁴ We hope that a new framework for digital taxation will be designed through international cooperation.

Introduction: Legal background

Taxation in Japan primarily depends on the legal nature of transactions under private law. As Japanese law does not define "big data" or "data," (big) data transactions must be analyzed by concepts existing in the Japanese legal system. Part one gives an overview of the Japanese legal system for the protection of (big) data transactions.

³ The 2016 amendments reduced the effective corporate tax rate for national and local governments to below 30%; the current effective tax rate is 29.74%.

⁴ Y. Masui, Japan Branch Report, IFA Cahiers (2001).

Civil code

Under a general law of private law in Japan, the Civil Code, data is treated as an intangible entity not subject to ownership or possession rights, usufruct, or any mortgage or charge. Thus, data is not eligible for protection based on legal concepts such as ownership or right of a property.⁵ Further, as a general rule, injunctive relief cannot be used against unauthorized acquisition, use, or provision of data under the tort law in the Civil Code.⁶

Intellectual property law

Protection of the database as a copyrighted work

Data protection is mainly discussed in the scope of intellectual property law. Article 2(1) (i) of the Copyright Act defines work as “a creatively produced expression of thoughts or sentiments that falls within the literary, academic, artistic, or musical domain.”⁷ Both claims for damage and injunction relief can be applied under the Copyright Act and the Civil Code.⁸ Foreign works are also protected by the Copyright Act where Japan is obliged to do so by conventions.⁹ One of the examples is the data of a creative image or a motion picture.¹⁰

In addition, “database works” are separately defined as “a database that, by reason of the selection or systematic construction of information contained therein constitute intellectual creations.”¹¹ “Database” means an aggregate of data in relation to articles, numerical values, or diagrams, which is systematically constructed so that such data can be searched using a computer.¹²

Big data tends to collect as much information as possible in a standardized way. However, besides setting up the information to be collected and uniformly processing the stored data, creativity in the products is an essential requirement for any big data “work” to be protected under the Copyright Act.

⁵ Civil Code, arts. 85 and 206.

⁶ A. Kubota (ed.), *New Commentary on the Civil Code of Japan* Vol.15, p.372 (2017).

⁷ Source: Japanese Law Translation Database System, <http://www.japaneselawtranslation.go.jp/law/detail/?id=3379/>.

⁸ Copyright Act, art. 100 and Civil Code, art. 709.

⁹ Copyright Act, art. 6 (iii). The Berne Convention for the Protection of Literary and Artistic Works falls under the scope of the “Convention” in this context.

¹⁰ Ministry of Economy, Trade and Industry, *Contract Guidelines on Utilization of AI and Data version 1.1* (2019), p.93, available at <https://www.meti.go.jp/press/2019/12/20191209001/20191209001-1.pdf> (accessed 31 October 2021).

¹¹ Copyright Act, art. 12-2(1). Translated in note 7 above.

¹² Copyright Act, art. 2(1)(x)-3. Examples of database works accepted by courts are database designed to cover all the occupations by classifying each occupation and combining them hierarchically for convenience of searching, a relational database for developers of new condominiums, including a database that chronologically tracks information from the start of condominium development to the end of sales and a relational database for search and process creation services.

Protection of data out of the scope of “work”

This section explores data protection that does not meet the requirements set out in the Copyright Act and falls outside the scope of copyright law protection.

Protection by tort law

For protecting data outside the scope of the Copyright Act, some lecturers propose protection under tort law as “legally protected interests.”¹³ The Supreme Court, however, held that the act of exploitation of a work that does not fall under the works specified by the Copyright Act as a protected work did not constitute a tort, unless there were exceptional circumstances, such as the infringement of legally protected interests which the Act does not protect for the use of the works.¹⁴ This decision did not completely deny the protection of proprietary data not covered by the Copyright Act under the tort law. However, a judicial research official of the Supreme Court raised concerns that it is challenging to protect data as a copyrighted work not specified by the Copyright Act as protected works. This is because the interests subject to the Copyright Act had already been decided, including whether or not it shall be protected, by the enactment of the Copyright Act.¹⁵ Given the narrow scope of protection under tort law and the fact that the remedy is limited to a claim for damages, it can be said that protection by tort law is not sufficient for any data owner.

Protection by contract law

Broadly speaking, even if the information in question is not protected by intellectual property laws such as the Copyright Act, it is possible to assert contractual rights and enforcement of performance or damages due to default against the other party to the contract in the event of non-performance of obligations by concluding contracts for the protection of information.¹⁶

Parties have the discretion to decide upon the information to be covered, the subjects, the terms and conditions, including protection in foreign countries, and the content of the rights that can be exercised by contractual protection. Such data contracts, consisting of provisions regarding the use, processing, transfer, and other data handling, make it possible to set detailed terms and conditions and distribute profits based on the extent of the contribution and the amount of investment made by the parties concerned.

However, this idea is derailed by the limitation of the protected scope. More specifically, contracts are effective only between the parties stated in the agreement; the scope of application of the contracts cannot be extended outside of the parties. Therefore, it cannot protect in instances where information leaks to them. There is also concern that contracts

¹³ Civil Code, art. 709.

¹⁴ Supreme Court, 8 December 2011, Minshu 65-9-3275.

¹⁵ M. Yamada, *Explanations of case law (hanreikaisetsu)*, Saikou Saibansyo Chosakan Kaisetu Minjihen Heisei 13 Nendo (ge), p.734 (2014).

¹⁶ Civil Code, arts. 414 and 415.

may not necessarily secure fair distribution of profits and utilization between the involved parties.¹⁷

Amendment to a law for data protection that is not protected by copyright law

As stated above, the scope of protection under the Copyright Act is relatively limited, and protection by tort law or contract law is also limited and not sufficient to protect a data holder. However, data can be protected as a “trade secret” under the Unfair Competition Prevention Act. Trade secrets refer to “technical or business information useful for business activities, such as manufacturing or marketing methods that are kept secret, not publicly known.” They are legally protected by civil remedies (i.e., injunctive relief and claims for damages) and criminal penalties under the Act.¹⁸ However, protection as a trade secret has its limitations, as the information is no longer protected when it is made “publicly known” due to leakage.¹⁹ For this reason, Japan has developed laws for the protection of data in recent years, as well as other countries.

A noteworthy legislative development for data protection outside of Japan is the enactment of Directive 96/9/EC in the European Union (EU),²⁰ which establishes “*Sui Generis* Rights” as exclusive rights related to database copyrights and databases are not protected by copyright.²¹ Unlike Japanese tort law and the Unfair Competition Prevention Act, these rights do not require a competitive relationship between the creator and user of a database and affirm the rights’ transferability.²²

The government of Japan finally decided to introduce a different approach from the EU. To safeguard value-added-related industries, the Unfair Competition Prevention Act was amended in 2018. By the amendment, the concept of “Protected Data” was newly introduced to protect data provided by businesses to third parties through transactions, such as data widely supplied as a product or shared data within a group.²³ As a result, Japan

¹⁷ See T. Ueno, *Legal protection of large volumes of automatically accumulated data (Jido Shuseki Sareru Tairyo Data no Houtekihogo)*, 2 patent 70, p.32-33 (2017). Data contracts tend to be incomplete contracts and do not cover problems that may arise after the conclusion of the contract. The Ministry of Economy, Trade and Industry has published guidelines regarding stipulations which should be included in the contract in order to promote reasonable contract negotiation and conclusion, reduce the transaction costs of such contracts, and promote the spread of data contracts. See Ministry of Economy, Trade and Industry, *supra* n. 10, p.20.

¹⁸ Unfair Competition Prevention Act, arts. 3, 4, and 21.

¹⁹ See T. Ueno, *supra* n. 17, p.33-34.

²⁰ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.

²¹ Directive 96/9/EC, art. 7(1). The “*Sui Generis* Rights” are rights granted to the creator of a database where there has been a substantial qualitative and quantitative investment in either the acquisition, verification, or presentation of the content. According to arts. 7(1) and 10 of the Directive, when a database is substantially invested, the creator is granted a right to prohibit the extraction and reuse of all or substantially all of the contents of a database for 15 years from the date of creation of the database.

²² Directive 96/9/EC, art. 7(3).

²³ “Protected data” means technical or business information that is stored and managed in a substantial amount by electromagnetic means as information provided to a specific person as a business, excluding information managed as confidential in art. 2(7) of the Unfair Competition Prevention Act. The legal protection for protected data is, as well as above mentioned, civil remedies such as injunctive relief and damages, but no criminal penalties.

introduced a new protection system, but digital practices are being developed day by day. Therefore, the legal system for the protection of data is required constant review.²⁴

Data trading and personal data

The development of borderless data transactions creates new chances and risks of irreparable damage by personal information leakage. This section explores how the Act on the Protection of Personal Information (APPI) offers protection of personal information and examines the description of the new concept of “anonymously processed information,” which was introduced to facilitate the collection and analysis of diverse and massive data (big data) in regard to personal information protection. Provisions of the APPI mentioned below apply to handling personal information or anonymous personal information in foreign countries by business operators who have acquired personal information to supply goods or services to Japan.²⁵

Protection of personal information under the Act on the Protection of Personal Information

Personal information protected under the APPI is defined as information about a living individual who can be identified by name, date of birth, or other descriptions or information that contains a personal identification code.²⁶ Presently, since personal information is often converted into data and managed by databases, a “personal information database, etc.,” is defined as a collection of information including personal information that is systematically organized in a way that a computer can retrieve specific personal information or that contains a personal identification code that allows specific personal information to be retrieved easily.²⁷ “Personal data” means “personal information constituting a personal information database, etc.”²⁸

Personal information handling business operators²⁹ must specify the purpose of use and cannot change the purpose of use beyond the extent that is reasonably deemed relevant to the purpose of use before the change.³⁰ Further, personal information handling business operators are prohibited from handling personal information outside the scope necessary to achieve the purpose of use without the prior consent of the individual concerned.³¹

Moreover, personal information handling business operators should make every effort to keep personal data accurate and current, to the extent necessary to achieve the purpose

²⁴ An approach for granting rights had concerned that it might distort the utilization of data. Therefore, it should be continued to study the necessity of such a rule, taking into account business trends related to the use of data, data trading market, and foreign countries' consideration.

²⁵ APPI, art. 75.

²⁶ APPI, art. 2(1).

²⁷ APPI, art. 2(4). A Cabinet Order excludes any cases specified as having a little risk of harming the rights and interests of individuals.

²⁸ APPI, art. 2(6). Source: Japanese Law Translation Database System, <http://www.japaneselawtranslation.go.jp/law/detail/?id=2781&vm=04&re=01/>.

²⁹ APPI, art. 2(5).

³⁰ APPI, art. 15.

³¹ APPI, art. 16.

of use, and delete personal data that is no longer required without delay. They also take necessary and appropriate action to prevent leakage, loss, or damage to personal data.³²

In principle, the consent of the individual concerned must be obtained in advance to allow access to personal data by a third party, except for specific cases outlined in article 23(1) of the APPI. Technically, personal information handling business operators should be allowed access to the personal data of a third party in a foreign country by the individual in advance.³³ Where personal data is received from a person residing in a foreign country, it is necessary to comply with that country's laws and treat it in accordance with the APPI after it is received.³⁴ As seen above, the APPI has strict and comprehensive provisions on protecting personal information related to personal identifiability while also considering its usefulness.

Anonymously processed information

It was necessary to collect and analyze a broad range of diverse and enormous data such as big data while maintaining a sense of security for consumers through proper handling of personal data that requires protection.³⁵ In 2015, a new system of “anonymously processed information” was created to enable the processing of personal data into data containing reduced personal identifiability that could then be provided to a third party without an individual's consent.

“Anonymously processed information” refers to information about individuals obtained by processing personal data in such a manner that a specific individual cannot be identified. This is done by adopting measures according to the classification of personal information, and that personal information cannot be restored.³⁶ Further, “anonymously processed information databases” refer to “a collective body of information comprising anonymously processed information that has been systematically organized to be able to search using a computer for specific anonymously processed information or similar others prescribed by cabinet order as systematically organized to be able to search easily for specific anonymously processed information.”³⁷

The anonymously processed information can be provided to a third party without the consent of the individual. Instead, in such cases, the details to be included and provided in the anonymously processed information for third-party use and the method of provision of the data must be disclosed beforehand on the website or elsewhere.³⁸ Note that this reform allows the industry to efficiently collect and transfer personal data through the anonymization of personal information. The next step is how to create new value through data transactions on the new regulations.

³² APPI, arts. 19 and 20.

³³ APPI, art. 24.

³⁴ See the Ministry of Economy, Trade and Industry, *supra* n. 10, p.48.

³⁵ With respect to enhancing data transactions, the Banking Act and the Insurance Business Act have been amended to allow banks and insurance companies to conduct business regarding the provision of retained information to third parties under special conditions.

³⁶ APPI, art. 2(9).

³⁷ APPI, art. 2(10). Translated in note 28 above.

³⁸ APPI, arts. 36(4) and 37.

Part One: Basic principles (character, source, and nexus)

1.1. General overview

General tax rules apply to big data transactions because Japanese tax law does not have specific provisions. As the legal consequence depends on the detailed facts relevant to each case, this section provides the implications instead of the definitive conclusions.

1.2. Character

There are two direct taxes on corporations: corporate income tax and withholding income tax. The nature of the income determines the type of taxation. The question here is the characterization of income arising from cross-border payments made by users accessing databases or downloading data. Generally, the income may constitute: (i) business profit, (ii) royalty for the use of data, or (iii) income from personal services rendered by the provider. In Cases 1 to 4, these three classifications should be analyzed.

1.2.1. *Business profits*

In Case 1, assume that Broker Co. sells copies of data sets to Japanese customers. Under the Corporation Tax Act, revenue from sales or transfers of assets, or services conducted by a domestic corporation, other than capital transactions, is taxed as business profit.³⁹ For domestic corporations, their worldwide income is taxable for corporation tax purposes, whereas for foreign corporations, the scope of taxation differs depending on whether they have a PE or not. A foreign corporation with a PE in Japan is only liable for corporate income taxes on the income attributable to the PE. In Case 1, if Broker Co., which gains profits from the sale of the data set, has a PE in Japan and the income is attributable to it, it is taxed as business profit.

1.2.2. *Royalty*

In Case 2, assume that Japanese Information Site Co. makes a payment to a foreign Animal Data Co. Under Japanese domestic tax law, royalties paid for the use of copyrights are subject to taxation.⁴⁰ The question here is whether access to the data constitutes copyright use for Japanese tax purposes, where payments for the use of copyright are subject to withholding tax as a royalty.

The rights included within the category of “copyrights” for Japanese tax purposes are generally interpreted as those prescribed under the Japanese Copyright Act. As noted in the introduction, “data” may also fall under the category of works under the Copyright Act. Whether or not the payment in Case 2 constitutes a royalty depends on the facts, but suppose here the payment for the use of data classified as a royalty for copyright paid in

³⁹ Corporation Tax Act, art. 22-2(1).

⁴⁰ Income Tax Act, art. 161(1) item 11. See also Income Tax Basic Circular 161-35.

Japan to a non-resident or foreign corporation. In that case, it shall be subject to withholding tax at the rate of 20% as domestic source income.⁴¹ In addition, from 2013 to 2037, the special income tax for reconstruction is levied on income tax at a rate of 2.1%, which means that a total of 20.42% is withheld.⁴² Under tax treaties, the treaty tax rate is applied if it is lower than the domestic tax rate.

1.2.3. *Income from personal services*

In Case 4, assume that Consultant Co, located in state X, provides consulting services to Japanese educational institutions via e-mail, online conferences, or other remote means of communication using its own database. Under Japanese domestic law, the payment is sourced to Japan if it is characterized as a consideration received by a corporation that conducts business with the principal objective of providing personal services in Japan.⁴³

Accordingly, the essential factor in determining the nature of income for Consultant Co. is whether it is providing human services in Japan. Income arising from such personal service business is subject to withholding tax at a rate of 20.42% and to corporation tax at the standard rate. In addition, the company will be required to file a tax return (normally with a tax credit for taxes withheld).⁴⁴

1.3. Source

The source of income on the use of data depends on the characterization of the payment for the data. Briefly, there are three possible patterns:

- (i) if the payment is treated as consideration for purchasing the data product itself, the income may constitute business profit;
- (ii) if the payment is considered a royalty and the data is used in Japan by the Japanese corporation, then the amount of consideration would be Japanese-source income;
- (iii) if it is treated as a payment for personal services, the source of the consideration is determined by the location where the services are rendered.

In the following sections, the source rules in these three patterns are analyzed in order.

1.3.1. *Business profit*

The source rule for business profit as nexus is discussed in section 1.4.

⁴¹ Income Tax Act, arts. 212(1) and 213(1).

⁴² A special income tax is imposed to secure the financial resources for reconstruction from the 2011 Great East Japan Earthquake, introduced by the 2011 Act on Special Measures for Securing Financial Resources Necessary to Implement Measures for Recovery from the Great East Japan Earthquake.

⁴³ Corporation Tax Act, art. 138(1), item 4.

⁴⁴ Corporation Tax Act, art. 141, and Income Tax Act, arts. 212(1) and 213(1).

1.3.2. *Royalty*

Under Japanese domestic law, the “place of use” test has been adopted to determine the source of royalties. Payments received by a foreign corporation may be sourced to Japan if they are “royalties or considerations received from a person who performs operations in Japan that pertain to the said operations.”⁴⁵

1.3.3. *Income from personal services*

The source of income from personal services is considered to be the place where the services are provided. However, in the evolving digital world, it has been easy for foreign businesses to render services to Japanese customers online without involving a physical location. Depending on the factual assumptions, it would be difficult to identify the place of service in Japan in situations such as Case 4. However, as discussed in section 5.2., it is possible to determine the place of service in Japan for consumption tax purposes.

1.4. **Nexus**

1.4.1. *Definition of PE*

The existence of a PE is a critical threshold for the taxation on business profits. Under Japanese domestic law, the definition of a PE includes the following three types:

- (i) Fixed place PE – A branch, factory, or other fixed places of business;
- (ii) Construction PE – A construction, installation, assembly project, or similar activity in control or supervision of these activities, conducted by a foreign corporation for one year or more;
- (iii) Agent PE – A person (individual or corporation) authorized to conclude certain contracts on behalf of a non-resident/foreign corporation or repeatedly plays a significant role in concluding the specific agreements routinely entered into without material modification by the non-resident/foreign corporation.⁴⁶

The first two PEs, fixed place PE and construction PE, are based solely on the physical location of the corporation. These PE regulations are applied to e-commerce transactions because the definition of a PE under the existing domestic law does not distinguish between electronic commerce and traditional commerce.

In Case 3, consider a case scenario where customers of heavy multifunctional equipment with sensors installed and the data center are both located in Japan. A question may arise as to whether the sensors or the data center constitute PEs in Japan. Even under domestic law, the interpretation of a fixed place PE refers to the OECD Model Convention Commentary on article 5. In other words, a place of business constitutes a PE if it is “a fixed place of business through which the business of an enterprise is wholly or partly carried on.”⁴⁷ In Case 3, a

⁴⁵ Income Tax Act, art. 161(1), item 11, and Corporation Tax Act, art. 138(1), item 6.

⁴⁶ Corporation Tax Act, art. 2, 12-19, item 1, 2, 3, and Order for Enforcement of the Corporation Tax Act, art. 4-4.

⁴⁷ OECD Model Tax Convention on Income and on Capital, art. 5, para. 1 (21 November 2017).

sensor does not constitute a PE, as it is not a fixed place, even though it is installed on heavy equipment.

Meanwhile, does the data center constitute a PE in Case 3? Assume that data centers are like server facilities, as in buildings dedicated to installing and operating servers and data communication devices for the Internet. The answer lies in the Commentary on article 5; i.e., the place must be “at the disposal of” the enterprise.⁴⁸ On this point, the advance ruling on the tax treatment of Tokyo Stock Exchange Inc.’s services by foreign investors serves as a reference.⁴⁹ The tax administration’s response stated that if a foreign investor sets up and saves computer programs or other data on a server owned or leased by another party that is installed at a data center or other facility located in Japan and is used to place orders to buy or sell financial instruments, such foreign investor is not treated as having a PE in Japan, solely on the basis of the fact that “the foreign investor will not be entitled, at its discretion, to dispose of such server (e.g., sell, provide as collateral, destroy) or utilize and derive profit from such server (e.g., subleasing to third parties, converting for other purposes).”⁵⁰ Applying this ruling to Case 3, if the data center is indirectly owned, it may lack the “at the disposal of” requirement to be a PE.

Do the existing BEPS measures solve these difficulties in determining PE status? The answer is no. Even though the government is making desperate efforts, the tax system has not yet caught up with the digital economy. The 2018 tax reform changed the PE provisions in domestic law to adopt BEPS measures.⁵¹ Specifically, as a measure to prevent the artificial avoidance of PE status, the place where an entity conducts only specific activities, such as the storage of assets, is not to be regarded as an exception to a PE if the specific activities are not preparatory or auxiliary activities for the entity. Despite these amendments, under the current concept of a PE, which requires a physical presence, it is difficult to recognize a PE as a “physical presence” in digital transactions.

1.4.2. *Income attributable to PE*

The 2014 tax reform incorporated the Authorised OECD Approach (AOA) into domestic law with regard to taxation for foreign corporations.⁵² Under this approach, the income attributable to a PE of a foreign corporation is calculated considering the functions, the asset, the risks, and the capital, and internal transactions between the PE and the head office, and other circumstances, assuming that the PE is a separate entity operating at arm’s length from the foreign corporation.⁵³ The objective is to eliminate the tax imbalance

⁴⁸ OECD *Model Tax Convention on Income and Capital*: Commentary on art. 5, paras.10 and 12 (21 November 2017).

⁴⁹ Advanced rulings provide written answers before transactions or tax filing deadlines if taxpayers have some doubts regarding the tax treatment of any transaction conducted or to be conducted. See National Tax Agency, *Administrative Procedures for Written Answers to Advanced Inquiries*, Administrative Guideline (28 June 2002).

⁵⁰ Tokyo Stock Exchange, Inc., *Tax Treatment of Foreign Investors Who Use Servers Located in Japan* (11 June 2010).

⁵¹ The PE provisions after the 2018 tax reform follow the final report of the BEPS project Action 7 (*Preventing the Artificial Avoidance of Permanent Establishment Status*), the OECD Model Convention (2017), and the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (the “MLI”) (7 June 2017).

⁵² See Y. Masui, *Introduction of the Authorised OECD Approach into Japanese Domestic Law*, Bulletin for International Taxation, 69(9)(2015), IBFD.

⁵³ Corporation Tax Act, art. 138(1), item 1.

caused by the different forms of a branch and a subsidiary. In the calculation of the income, a particular emphasis is placed on the human function associated with each element.⁵⁴ Applying it to Case 3, as the data center itself does not perform any significant human functions, its attributed income will be small, even if it constitutes a PE.

Part Two: Application of treaty principles

2.1. General overview

In the domestic legal hierarchy in Japan, once treaties are incorporated into the legal order, their effect is considered superior to domestic law.⁵⁵ Domestic law is applied in cases where there is no definition under the tax treaty or no tax treaty with the country in question.

2.2. Detailed comments

2.2.1. *Business income*

The 2018 amendments introduced a coordination rule for clarification in cases where there are discrepancies in the definition of a PE between tax treaties and domestic law. In particular, if a treaty contains provisions different from domestic law, the PE shall be treated as specified under the treaty in the case of a non-resident/foreign corporation.⁵⁶

2.2.2. *Royalty: Definition*

Japan's tax treaties generally adopt the OECD Model Convention's definition of "royalties."⁵⁷ However, each treaty needs to be carefully examined to determine the scope of royalties as there are many variations in the treaty provisions. In addition, particular attention should be paid to the discrepancy between the provisions of domestic laws and treaties. Japan's domestic tax law includes a consideration paid for the alienation of copyrights within the scope of royalties. In contrast, some tax treaties exclude proceeds derived from the alienation of any right or property that would give rise to royalties from being considered under the provision of royalties.⁵⁸ In the authors' view, a "data transfer" is to be treated as a kind of license, not a sale of products, to the extent that it does not constitute the full

⁵⁴ Corporation Tax Basic Circular 20-2-3.

⁵⁵ The Constitution of Japan, art. 98(2).

⁵⁶ Corporation Tax Act, art. 2, 12-19.

⁵⁷ Art. 12 of the OECD Model Convention defines the scope of "copyright" as "the copyright in literary, artistic or scientific works (including moving picture films)." *OECD Model Tax Convention on Income and on Capital*, art. 12, para. 2 (21 November 2017).

⁵⁸ Tax treaties with Australia, Ireland, Italy, Netherlands, Spain, Sweden, Switzerland, and the US.

ownership of all rights and interests in the data involved.⁵⁹ In other words, a consideration for a “data transfer” is to be treated as a royalty, not gains derived from the alienation of property under tax treaties.⁶⁰ In Case 1, the payment for a “data transfer” by the customer to Broker Co. may be treated as a royalty, not capital gains, given that it is challenging to presume a complete transfer of ownership of big data.

2.2.3. *Royalty: Source rule and exemption policy*

Under domestic law, the “place of use” criterion is used to determine the domestic source income for royalties, while many tax treaties use the place of payer’s residence. Under a treaty, the treaty source rule takes priority over the domestic law rule. However, in recent years, such differences in source rules have not been discussed as much as before in the context of royalties, because royalties are exempt from withholding tax under several tax treaties, regardless of the source rule.⁶¹ This exemption is one of Japan’s tax treaty policies that targeted developed countries since the Japan-United States Tax Treaty (2003).⁶² The purpose of eliminating the withholding tax on royalties was to attract US companies to invest in Japan.⁶³ Looking at the result, Japan’s balance of payments for royalties from intellectual property rights has been positive due to the contribution of industrial property rights (patent, utility model, design, and trademark) since 2003; however, royalties from copyrighted works have been consistently negative.⁶⁴ In essence, the payments of copyright royalties from Japan have exceeded the amount received. This statistic implies that Japanese companies are less competitive in the global IT or software industry.

2.2.4. *Income derived from personal services*

As noted in section 1.2.3., under domestic law, income arising from a personal services business, whether or not the corporation has a PE, is subject to a 20.42% withholding tax and corporate tax at the standard rate, and they must file tax returns. However, under tax treaties, this form of income ordinarily constitutes business profits falling under the

⁵⁹ The Commentary on art. 12 of the OECD Model Convention states, “where a payment is in consideration for the transfer of the full ownership of an element of property referred to in the definition,” it does not represent a royalty; it may constitute the income from the business under Article 7 or the transfer of the rights under Article 13. *OECD Model Tax Convention on Income and Capital: Commentary on art. 12*, para. 8.2 (21 November 2017).

⁶⁰ In deciding whether or not payments arising in digital transactions constitute royalties, “the main question to be addressed is the identification of that for which the payment is essentially made.” *Id.*, at para. 17.1.

⁶¹ Tax treaties with Austria, Belgium, Denmark, France, Germany, Iceland, Latvia, Lithuania, Netherlands, Spain, Sweden, Switzerland, Russia, the UK, and the US.

⁶² *The Convention between the Government of Japan and the Government of the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income*, art. 12 (6 November 2003).

⁶³ M. Asakawa, Commentary on Revised Japan-US Tax Treaty (Konmentaarau Kaitei Nichibei Sozei Joyaku), Okura Zaimu Kyokai, p.7-8 (2005).

⁶⁴ Bank of Japan, *Balance of Payments Statistics and Japanese External Assets and Liabilities in 2019*, p.12 (July 2020). The statistic shows that the surplus for royalties from intellectual property rights shrank (from 2.6 trillion yen in 2006 to 2.2 trillion yen in 2007), mainly due to an increase in royalty payments for copyrights and other royalties.

business profits provision rather than the royalty provision. In such cases, the tax treatment would be the same as in the business profit situation described in section 1.2.1.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

In Case 3, assume that Equipment Co. is a Japanese parent company and Service Co. is its subsidiary, and the service transaction between them is subject to transfer pricing provisions under Japanese domestic law. The payment from Equipment Co. to Service Co. needs to be tested under the arm's-length standard. In the practice of Japanese companies, transactions relating to intangible assets in the group are licensing transactions.⁶⁵ For this reason, the following discussion assumes the licensing of a copyright to a related party and the associated transactions of intangible assets such as knowledge and quality control.

As a background, Japan legislated transfer pricing rules in 1986. In recent years, one of the significant revisions is the 2011 tax reform; it introduced the best method rule based on the OECD Transfer Pricing Guidelines (2010). In addition, it has defined the Comparable Profit Split Method, the Contribution Profit Split method, and the Residual Profit Split Method. Another substantial revision is the 2019 tax reform; it incorporated the discount cash flow method for calculating the arm's-length price and the price adjustment measure for hard-to-value intangibles (HTVI).⁶⁶ As a basic policy, the tax authorities follow the OECD Transfer Pricing Guidelines for enforcement.⁶⁷

3.2. Definition of intangible assets

The 2019 tax reform defines intangible assets for transfer pricing tax purposes in line with the 2015 Final Report of BEPS Actions 8-10 and the OECD Transfer Pricing Guidelines (2017).⁶⁸ An intangible asset is defined as an asset, other than tangible and financial assets, for which the amount of consideration would be payable if the transfer or license of these assets or a similar transaction were to be paid under ordinary business terms between unrelated

⁶⁵ Ernst & Young Tax Co., Research and Study on Transfer Pricing Taxation and Taxation on Local Subsidiaries in Various Countries in light of the BEPS Project (BEPS Purojekuto wo Fumaeta Itenkakaku Zeisei Oyobi Kakkoku Genchi Kogaisya Nado Ni Taisuru Kazeimondai), for FY 2017 Research Project by the Ministry of Economy, Trade and Industry (METI), p.63-68 (2018).

⁶⁶ These measures follow the 2015 final report of BEPS Action 8-10 (Aligning Transfer Pricing Outcomes with Value Creation) and the OECD Transfer Pricing Guidelines (2017). See Ministry of Finance, Explanation of 2019 Tax Reform (Heisei 31/Reiwa 1 Nendo Zeisei Kaisei No Kaisetsu), p. 591. The 2016 tax reform also introduced a documentation rule, obliging taxpayer companies to prepare and report documents that serve as the basis for calculation of the arm's-length price in line with the 2014 final report of the BEPS project Action 13 (Transfer Pricing Documentation and Country-by-Country Reporting). See Ministry of Finance, Explanation of 2016 Tax Reform (Heisei 28 Nendo Zeisei Kaisei No Kaisetsu), p. 565.

⁶⁷ National Tax Agency, Administrative Guidelines 1- 2(3).

⁶⁸ Ministry of Finance, Explanation of 2019 Tax Reform (Heisei 31/Reiwa 1 Nendo Zeisei Kaisei No Kaisetsu), p. 599.

parties.⁶⁹ Specifically, this includes licensing customer lists and sales networks, knowledge and trade secrets, trade names and brands, licensing of intangible assets or rights created by a transaction equivalent to a license, and contractual rights.⁷⁰ Applying it to Case 3, the rights created by the licensing of big data are intangible assets for transfer pricing tax purposes.

For intangible assets that serve as a source of revenue for a corporation or related party, it is necessary to determine if they have “significant value.”⁷¹ In making this determination, the nature of the tested transactions, the activities and functions of the corporation and related parties, and the market conditions should be fully considered.

3.3. DEMPE analysis

The degree of contribution should also be considered, along with the legal ownership of intangible assets, when the legal owner is not the same as the person who contributed to its formation, maintenance, and development. In the analysis of the Development, Enhancement, Maintenance, Protection, and Exploitation (so-called the DEMPE) of intangibles, it is necessary to take into account the actual services provided and the cost-sharing, as well as the roles played by the corporation or the related parties in decision-making and risk management associated with research and development.⁷²

3.4. Calculation method

Regarding the calculation method of intangible assets, the so-called one-sided approaches, such as the Resale Price Method, the Cost-Plus Method, and the Transactional Net Margin Method (TNMM), are easier to apply than the two-sided ones. However, since only one party is tested, the application results may be unreasonable from profit allocation in the entire related transaction. On the other hand, two-sided approaches such as the Profit Split Methods are often challenging to apply in practice. In particular, in the Residual Profit Split Method, the profits to be split are divided into basic profit and residual profit and then allocated in two stages; however, it is difficult to identify the splitting factor on the residual profit. Generally, the TNMM would be appropriate when only one party in a transaction holds significant intangible assets. In contrast, the Residual Profit Split Method can be applied when both parties use the intangible assets and contribute uniquely and valuably.⁷³

⁶⁹ Special Taxation Measures Act 66-4(7), item 2, Order for Enforcement of Special Taxation Measures Act, art. 39-12(13), and Regulation for Enforcement of Special Taxation Measures Act, art. 22-10 (9).

⁷⁰ Special Taxation Measures Circular 66-4(8)-2.

⁷¹ National Tax Agency, Administrative Guidelines 3-12. *See also* Administrative Guidelines Supplement: Reference Case Studies on Application of Transfer Pricing Taxation, Case 11 (Intangible properties created by R&D and marketing activities).

⁷² National Tax Agency, Administrative Guideline 3-13 and Administrative Guidelines Supplement: Reference Case Studies on Application of Transfer Pricing Taxation, Case 14 (Contribution to creation, maintenance, and development of intangible properties).

⁷³ *See* National Tax Agency, Administrative Guidelines Supplement: Reference Case Studies on Application of Transfer Pricing Taxation, Case 6 (Use of Transactional Net Margin Method) and Case 8 (Use of Residual Profit Split Method).

However, more detailed facts are needed to select an appropriate calculation method in Case 3.

3.5. Comparability

Whichever calculation method one chooses, comparability is the most problematic in the transfer pricing treatment of intangibles. It is often tricky to select a comparable transaction for a tested transaction involving intangible assets because intangible assets are characterized by their distinctiveness and individuality, which may give them a competitive edge over a corporation that only engages in basic activities. In the *Honda Motor Company Limited* Case, the court held that the tax authorities failed to select the comparable to the tested company, which operated in the Manaus Free Economic Zone in Brazil, because the selected comparable was located outside the zone, even though the Manaus tax system could be considered one of the market conditions impacting the degree of profitability.⁷⁴

Another issue is a relatively higher threshold of the burden of proof for the tax authorities to adjust the difference in the comparable in litigation. In the *World Family* case, the tax administration applied the Resale Price Method to the Japanese corporation selling Disney World English language materials. However, the court held that it was impossible to accurately adjust the difference in the comparable transaction due to the “extremely considerable differences” in the recognition and appeal of the Disney characters.⁷⁵ Some scholars made comments, terming this case as a hopeless case for the tax authorities.⁷⁶ Others have suggested that the application of the arm’s-length principle over intangibles has become a sort of “black box” that allows MNEs to employ manipulation and arbitration in accounting.⁷⁷

Part Four: Special regimes

4.1. General overview

As mentioned in section 1.1, no special tax rules apply to the development and sale of products or services that utilize big data.

4.2. DST

Japan has not enacted a digital services tax or a similar tax for the acquisition or use of data. However, specific cross-border electronic services are subject to consumption tax (equivalent to VAT), as described in section 5.2.

⁷⁴ Tokyo High Court, 13 May 2015. Zeimu Sosho Siryo Vol. 265-76, No. 12659.

⁷⁵ Tokyo District Court, 11 April 2017. Zeimu Sosho Siryo Vol. 267-56, No.13005.

⁷⁶ A. Asatsuma, *Transfer Pricing Taxation, Commensurate-with-Income Standard (Itenkakaku Zeisei Shotoku Souou Kijyun)*, New International Tax System in the Global Era, p.40 (2019), 21st Century Public Policy Institute.

⁷⁷ N. Oka, *Fight against Tax Havens and International Tax Law* (Takkusu Heibun Tono Tatakai To Kokusai Sozeihou), p.149 (2020), Financial Review, Policy Research Institute, Ministry of Finance Japan.

4.3. Incentives

In Japan, the Special Taxation Measures Act provides for policy-based tax measures to achieve specific administrative objectives. Among them, the reduction of tax regarding research and development (R&D) is a typical system applied to corporations under the prescribed requirement to strengthen Japan's international competitiveness. To promote the development of new services such as using the Internet, big data, and AI, the 2017 tax reform included the cost of testing and research for service development through a specific method to develop new services in the scope of the R&D promotion taxation system.⁷⁸ This system applies to big data development if the conditions are met. It should be noted, however, that Japan has not introduced a patent box system.

In addition to this method, to improve productivity through data linkage and utilization with cybersecurity measures, a system that allowed certified businesses to receive a 30% special depreciation or a 3% tax credit for capital investment in software and associated equipment and devices for use in accredited business plans was introduced. However, the system was abolished in 2020.

4.4. Barter treatment

There is no official guidance on the tax treatment of data barter transactions under Japanese consumption tax law, and this issue has not been discussed in much detail. Taking the relevant provision literally, any delivery of assets that does not involve a monetary payment, such as an exchange, payment in lieu, or contribution in kind, but has some kind of counter-benefit, is subject to taxation under consumption tax law.⁷⁹ In the authors' view, a barter transaction should be taxed at market value, but it is challenging to recognize and assess data value.

Part Five: Indirect tax

5.1. Overview

Consumption tax (equivalent to VAT) is levied on the supply of goods and services by businesses in Japan. In 1989, Japan introduced the consumption tax at 3%. The tax rate was later raised to 5% in 1997 and to 8% in 2014.⁸⁰ Since October 2015, Japan has levied consumption tax on specific cross-border electronic services, such as the distribution

⁷⁸ Special Taxation Measures Act, art. 42-4(8), Order for Enforcement of Special Taxation Measures Act, art. 27-4(2) and (3), and Regulation for Enforcement of Special Taxation Measures Act, art. 20(1) and (2).

⁷⁹ Consumption Tax Act, art. 28(1).

⁸⁰ The rate of 5% in 1997 is 4% for national and 1% for local governments. The rate of 8% in 2014 is 6.3% for national and 1.7% for local governments. Since 1997, when the government introduced the local consumption tax, the consumption tax has been allocated between the national and local portions of the tax revenues. Since 2012, as part of the integrated reform of the social security and tax systems, consumption tax revenues have been limited to social security purposes.

of e-books, music, and advertisements conducted by foreign businesses.⁸¹ In 2019, the government raised the standard tax rate to 10%, and introduced a reduced tax rate of 8%.⁸² However, as the scope of the reduced tax rate is limited to the transfer of food and beverage products (not including restaurant meals) and subscriptions to regular newspapers, the above electronic services are not eligible for the reduced tax rate.

5.2. Consumption tax on specific cross-border electronic services

The 2015 tax reform changed the criterion for determining the place of supply in specific cross-border electronic services to “address of the service recipient” (destination principle). Before this revision, the service provider’s location was defined as the place of services rendered (origin principle). For that reason, when the service provider was a foreign business, consumption tax was not levied on the service because the service was not provided in Japan. This difference created a tax disparity for the same service, depending on whether the provider was located in Japan or in a foreign country. The purpose of the 2015 tax reform is to eliminate the imbalance in competitive conditions between domestic and foreign service providers in the Japanese market.⁸³ It covers the supply of e-books, music, and software via telecommunication networks, in addition to advertising on the Internet, cloud services, and consulting.⁸⁴

There are technical differences in tax filing and payment depending on whether a transaction is a B2B or B2C service.⁸⁵ For B2B electronic services conducted by a foreign business, a Japanese business receiving the services provided is liable to file and pay tax in Japan (reverse charge).⁸⁶ On the other hand, B2C electronic services obligate foreign businesses to file and pay taxes to the Japanese tax administration. The businesses are also required to be “registered foreign business” because B2C services provided by the registered foreign businesses are eligible for a credit on the consumption tax returns by Japanese businesses.⁸⁷ From another perspective, a registered foreign business is a taxable person of Japanese consumption tax who provides B2C electronic services. It is worth noting

⁸¹ The Act for Partial Revision of the Income Tax Act (Act No. 9 of 2015). This revision is called “Review of the taxation of consumption tax on cross-border services.”

⁸² The standard rate of 10% is 7.8% for national and 2.2% for local governments. The reduced rate of 8% is 6.24% for national and 1.76% for local governments.

⁸³ Consumption Tax Act, art. 4(3), item 3. *See also* Ministry of Finance, *Explanation of 2015 Tax Reform* (Heisei 27 Nendo Zeisei Kaisetsu), p. 829.

⁸⁴ Consumption Tax Act, art. 2(1) item 8-3. The following transactions do not fall under the scope: the transmission of information between others (such as the use of telephone, fax, telegrams, data transmissions, and Internet connections), software production, management and operation of assets located abroad (including Internet banking), collection and analysis of information.

⁸⁵ The rationale behind this treatment is that it is impractical to impose tax filing obligations on consumers who receive digital services. Through legislative techniques, B2B transactions are defined in a limited way as those in which the persons receiving the services are only businesses; then, all the other transactions are treated as B2C. *See* Ministry of Finance, *Explanation of 2015 Tax Reform* (Heisei 27 Nendo Zeisei Kaisetsu), p. 836 and p. 839.

⁸⁶ Consumption Tax Act, art. 4(1) and art. 5(1).

⁸⁷ Supplementary Provisions of the Act for Partial Revision of the Income Tax Act, art. 38 (1)(2)(3) (Act No. 9 of 2015).

that some of the so-called Big Tech companies are also registered.⁸⁸ However, the level of compliance with this system is unknown.

In Case 4, suppose that Consultant Co. (i) provides consulting services to Japanese educational institutions (see also 1.2.3. and 1.3.3. Income from personal services) and (ii) allows third-party researchers to access its database for a fee to engage in their own research projects. If the researchers are in Japan and the transaction (ii) also covers consumers, both transactions (i) and (ii) would be subject to the above mechanism because the place of supply is considered to be the “address of the service recipient,” i.e., Japan. Consequently, Consultant Co. pays consumption tax to Japan at a rate of 10%. For the transaction of (i) (B2B service), Japanese businesses file and pay tax by a reverse charge, and for the transaction of (ii) (B2C service), Consultant Co. files and pays tax at a tax office in Japan and is required to be a registered foreign business.

Part Six: Tax accounting

6.1. Recognition standard

The tax base of corporate income tax is the corporation's income for each fiscal year. The income is calculated by subtracting the amount of loss from the fiscal year's profit for that fiscal year.⁸⁹ Article 22(4) of the Corporation Tax Act stipulates that the principle of compliance with corporate accounting should be employed to calculate the amount of profit and loss. This means that the accrual basis of accounting is considered to be appropriate for calculating a corporation's income (i.e., it is based on the point in time when income is generated even if there is no actual income).

Moreover, the comprehensive accounting standard on revenue recognition (e.g., “IFRS 15 Revenue from Contracts with Customers”) was developed jointly by the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB). In response to the development, the Accounting Standards Board of Japan (ASBJ) published a statement and guidelines almost identical to the global standard mentioned above. Article 22-2 was established as a special provision of article 22(4) of the Corporation Tax Act to ensure consistency with this accounting standard.⁹⁰ The rules mentioned above are the general rules applicable to data transactions.

6.2. Capital amortization

Several distinctive amortization methods are allowed for the tax treatment of software essential to big data transactions. First, the software is treated as a depreciable asset, and the acquisition cost of software includes the cost of purchase and the direct cost of using the software for business purposes. In the case of in-house production, the amount of raw materials, labor, and expenses required for the production, etc., and the direct costs of using

⁸⁸ As of 15 September 2020, the latest registration number of registered foreign businesses list is 103, and about 40% of these are US companies.

⁸⁹ Corporation Tax Act, art. 22(1).

⁹⁰ See H. Kaneko, *Tax Law (Sozeiho)*, 24th edition, p.355-365 (2021).

the work for business purposes are included in the acquisition price. The useful life is three years for an original sale or research and development and five years for others.⁹¹

In addition, costs of modification of software are reflected in tax returns, depending on the content of the modification. According to a guideline published by the National Tax Agency, if the modifications correspond to the removal of functional problems or maintenance of the current utility of the program, the cost of repairing the program is considered a repair cost. However, if the modifications correspond to adding new or improving functions, they are treated as capital expenditure. It is worth noting that the Japanese government introduced this to encourage further investment in data transactions one after another, which needs more time to see concrete results.

Addendum

Japan's position on the international agreement to address the tax challenges arising from the digitalization of the economy

Background

As argued in the report, the globalization of business activities and the digitalization of the economy have made the boundary between residence and source states fragile, resulting in more difficult income classification and the potential for inconsistencies between the states. The BEPS Project has not completely removed weaknesses and deficiencies in the international tax system. These impasses over the nexus of PE and the arm's length principle have increased the need for debate and fundamental reform on the allocation of taxing rights.

Position of Japan

In order to tackle these issues, the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (IF) has agreed on a Two-Pillar solution to address the tax challenges arising from the digitalization of the economy on 8 October 2021. Japan strongly welcomes such a historic agreement on the new international tax rules and will continue to collaborate with other jurisdictions to achieve the remaining works, including developing a multilateral convention and introducing domestic tax legislation.⁹²

Future developments

As of the end of November 2021, it is impossible to foresee future developments in Japan's action to the Two-Pillar solution because no cabinet decision document has been issued

⁹¹ Order for Enforcement of Corporation Tax Act, arts. 13, 54, and 56.

⁹² Ministry of Finance, *Statement by Finance Minister SUZUKI Shunichi on the International Agreement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalization of the Economy* (on 8 October 2021), available at https://www.mof.go.jp/english/policy/tax_policy/others/20211009.htm (accessed 30 November 2021).

on the above agreement, and the Diet has not yet started deliberations. The democratic process governs tax reform in Japan and the Diet, as the sole law-making organ of Japan, deliberates on tax bills submitted by the government.⁹³

Reference

Outside of the above process, the study group, assembled by the Ministry of Economy, Trade and Industry (METI) to seek fair competition with foreign companies, published its report in August 2021.⁹⁴ The report focuses on addressing Pillar 2 rather than Pillar 1 because only a small number of multinational enterprises in Japan companies will be affected by Pillar 1. The report proposes a review of the controlled foreign corporation (CFC) rules and prevention of tax avoidance by multinational companies exploiting the special exemption from consumption tax. However, it is uncertain how the report will be reflected in the government's bill and deliberations at the Diet; the study group only intended to deliver the messages primarily from the business sector as the METI does not have jurisdiction over the above process.

⁹³ On the government side, the Ministry of Finance has jurisdiction over national taxes, and the Ministry of Internal Affairs and Communications has jurisdiction over local taxes.

⁹⁴ Ministry of Economy, Trade and Industry, *Report by the Study Group on International Taxation in the Digital Economy* (19 August 2021). The study group was composed of academics, tax accountants, and major corporations; the Ministry of Finance and other relevant authorities also participated in it as observers.

Summary and conclusions

With the advent of the Fourth Industrial Revolution, people are constantly absorbing an immense amount of data by using intelligence as well as information and communication technology on a daily basis. The use of such data accumulation has triggered unprecedented changes in every aspect of our society including the economic industry and medical services. Far more data encompassing numerical, textual and visual data are generated in shorter cycles than in a past analogue setting, which is referred to as “big data”.³

Big data is created by developing and analyzing a large volume of valuable data using basic data sets, often in combination with new technologies such as artificial intelligence and the Internet of Things (IoT). Unlike data that was available at the early stages of the Internet, big data as of today contains information on almost every aspect of our daily life, and effective analysis thereof can produce information of immense value.⁴ In the global market, it has become an increasingly important business function to collect, aggregate, structure and analyze large sets of data. Not only IT companies, but also companies adopting diverse business models utilize big data technology. For instance, corporate entities utilize such big data technology to facilitate customer acquisition and retention, detect potential business risks at an early phase, develop risk management solutions, innovate and develop new products, and manage supply chains.

Under these circumstances, how much data can be collected and how elaborately can such data be analyzed and utilized, is what builds competitiveness not only on a corporate level, but also on a national level. In other words, data increasingly becomes resources for business and administrations, where individuals, companies and countries will take advantage of big data by retaining and utilizing high-quality data in large quantities in the era of the Fourth Industrial Revolution.⁵

This report seeks to address the tax implications of transactions where big data is accumulated, processed, and analyzed in a domestic and international context. First, this report intends to introduce legal issues in the Republic of Korea (hereafter Korea) that are

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³ Naver encyclopedia of knowledge:
(<https://terms.naver.com/entry.nhn?docId=1691554&cid=42171&categoryId=42183>)

⁴ Jun-seok Park, “The protectability of new data such as big data and etc. from the perspective of intellectual property law”, *Journal of Industrial Property* Vol. 58, 2019. 1, p.81.

⁵ Bang, Dong Hee, “A Study on Enactment of Data Legislation for Activating the Data Economy”, *LAW REVIEW Institute of Law Studies PUSAN NATIONAL UNIVERSITY* Vol.59, No.1, February 2018, p.6.

associated with big data development and commercialization by companies. Then, it will examine how foreign companies, supplying goods or services to residents by using big data, are subject to taxation under Korean tax laws and international tax treaties.

Introduction: Legal background

“Big data” has yet to be defined through a statute in Korea. However, in the past under the Bill on the Use of Big Data and Industrial Promotion (“Big Data Bill”) proposed in 2016,⁶ it was once defined as “information which is generated by processing (referring to collection, generation, storage, combination, analysis, and other acts similar thereto) public information and/or information on the use of information through devices capable of processing information, as well as, the technology to extract value therefrom and analyze the results”.⁷ According to such definition, big data could be understood as a combination of (i) information generated from processing data and (ii) the technology to extract value therefrom and analyze the results. Furthermore, in order to understand the legal concept of big data, it is essential to first understand how the legal concept of data comes across under current laws in Korea. According to the Act on Promotion of the Provision and Use of Public Data, “public data” refers to any data or information, including databases and electronic files, processed in an optical or electronic form and created or acquired and managed by any public institution for the purposes set forth in the laws, which fall under administrative information under subparagraph 6 of article 2 of the Electronic Government Act,⁸ information under subparagraph 1 of article 3 of the Framework Act on National Informatization⁹ which is produced by a public institution, and electronic records under article 20(1) of the Public Records Management Act that are prescribed by Presidential Decree.

Meanwhile, the Copyright Act refers to the term “database.” According to this Act, “database” is defined as a compilation of which materials are systematically arranged or composed so that those materials may be individually accessed or retrieved.¹⁰ The term “compilation” denotes a collection of works, symbols, letters, sound, images and other forms of data (materials) and includes databases.¹¹ Since a database represents systematically arranged data, a producer who has made substantial investment in human or material resources for the production of the database or for renewal, verification or complementation of its materials is subject to legal protection under the Copyright Act.

In short, although existing laws do not clearly define data, it can be inferred from the concept of information set forth in the Framework Act on National Informatization that

⁶ The Big Data Bill was repealed on 5 March 2020.

⁷ Subpara. 3 of art. 2 of the Big Data Bill.

⁸ The term “administrative information” means data prepared or acquired and managed by administrative agencies, etc. in the course of performing their duties, which are processed by electronic means and expressed in the form of codes, characters, voice, sound, images, and the like.

⁹ The term “information” means all types of data or knowledge processed in an optical or electronic form for a certain purpose and expressed in codes, characters, voice, sound, images, and the like (subpara. 1 of art. 3 of the Framework Act on National Informatization).

¹⁰ Subpara. 19 of art. 2 of the Copyright Act.

¹¹ Subpara. 17 of art. 2 of the Copyright Act.

“data” means information or materials processed by electronic means and expressed in codes, characters, voice, sound, images and the like. In particular, given that the Big Data Bill defined big data as information generated by processing public information and/or information on the use of information as well as technology to analyze such information, data can be described as electronically processed information.

The legal nature of data is discussed below.

Applicability of the ownership concept under the general property law

Ownership under the Civil Act refers to a person's right under private law to use, profit from, and dispose of his/her own property by directly, exclusively and completely controlling it. The subject of such ownership is an “object.” Article 98 of the Civil Act defines an object as a corporeal thing, electricity, or any other natural force that can be managed. Specifically, the term “object” includes a corporeal thing that occupies some space and is perceivable as a natural force such as sound, scent, heat, light, nuclear power or other energy sources subject to exclusive control.

With respect to the definition of data, it is difficult to recognize data itself as an object as stipulated in the Civil Act, which is defined as electricity or any other natural force, which can be managed. In addition, data itself is not subject to legal protection as there exists no right to data.

However, a data holder may enjoy exclusive control over data because he/she may use, profit from, and dispose of data as if he/she owns it. If data, which is an intangible asset, is managed as a trade secret, it may give rise to a claim for prevention or discontinuance of infringement or a damage claim, etc. In case of a database to which a copyright is acknowledged, rights under individual laws including personal rights, property rights, a claim for prevention or discontinuance of infringement, and a damage claim can arise. Moreover, if data involves any other person's copyright or personal information, restrictions are imposed on the exercise of a right thereon, notwithstanding control over such data.

Protectability of data as copyright

Patent right under the Patent Act

Just like software, data itself is not patentable. This is because creative work such as data and software merely constitute a presentation of information or a programming language and thus is not regarded as an invention, which prevents acknowledgment of its industrial usability.

However, although data itself lacks patent eligibility, the following can be registered as a patent: i) data combined with hardware; ii) information processing method involving data; and iii) data collection and processing method. For instance, an invention incorporating biodata into a NAND flash device for its use in financial transactions, a system including a database which makes a judgment on certain phenomena, and a system collecting data have industrial usability as inventions. Therefore, a patent right may be granted to data generated by a patented invention or an object.

Copyright under the Copyright Act

If a database has a creative attribute, it is protectable as a compilation work. To ensure its protection as a compilation work, the database must exhibit creativity in producing a compilation by collecting, classifying, choosing and arranging materials under a certain policy or objective. For example, if a webpage is creative in terms of its composition and materials selection or arrangement, it will constitute a compilation work and therefore can be protected as an independent work.

Sui Generis rights of a database producer

The Korean Copyright Act also offers sui generis protection whereby a database is protected as a compilation work if it is acknowledged to be creative, or otherwise granted a separate right. Accordingly, the Copyright Act contains eight special clauses designed to safeguard database producers. Under the Act, a database producer is entitled to reproduce, distribute, broadcast, or transmit all or a substantial part of one's database.¹² These sui generis rights remain in force for five years, beginning from the year immediately following the year of completion of the database production.¹³ In addition, if a database producer has made substantial investment in human or material resources for such purposes as database renewal, his/her sui generis rights shall enter into effect at the time of such renewal and remain in force for five years, beginning from the immediate following year.¹⁴

A database producer monopolizes the right to reproduce, distribute, broadcast or transmit his/her database and to grant such right. In the event of a violation of such right, the database producer may seek civil relief in court including a damage claim and/or a claim for prevention/discontinuance of infringement. A violator of sui generis rights may also be criminally punished.¹⁵ As the series of protection schemes mentioned above are limited to databases, however, unstructured data is not eligible for sui generis protection.

Trade secrets under the Unfair Competition Prevention and Trade Secret Protection Act

The Unfair Competition Prevention and Trade Secret Protection Act defines trade secret as a confidential production method, sales method, or any other technical or business information useful for business activities, which is not in the public domain and has independent economic value.¹⁶ In other words, confidential information falls under trade secrets to the extent that it has economic value and remains undisclosed.

Any data containing trade secrets may be protected under the Unfair Competition Prevention and Trade Secret Protection Act. In order to use data, however, multiple parties

¹² Art. 93(1) of the Copyright Act.

¹³ Art. 95(1) of the Copyright Act.

¹⁴ Art. 95(2) of the Copyright Act.

¹⁵ Art. 136(2)3 of the Copyright Act.

¹⁶ Subpara. 2 of art. 2 of the Unfair Competition Prevention and Trade Secret Protection Act

concerned should undergo a series of steps including accessing and analyzing data. Since such process inevitably reveals trade secret, monopolistic rights to data naturally cease to exist. Against this backdrop, the Unfair Competition Prevention and Trade Secret Protection Act serves as a strong legal mechanism that grants protection to data containing trade secrets, although it may limit the use of data.

Business assets under contract law

Business transfer under the Commercial Act refers to a comprehensive assignment of business assets functionally intertwined with factual relevance with economic value. Factual relevance with economic value means intangible assets accumulated for a long time on the basis of managerial and operating activities, whereby business assets can be applied to operating activities. Based on the fact that article 27 of the Personal Information Protection Act provides for restrictions on personal information transfer stemming from business transfer according to the Commercial Act, not only ordinary data but also personal information and other data of such nature may be subject to business transfer. Thus, in short, it could be said that data is also a form of business asset.

Three major Data Privacy Laws¹⁷ and personal information (Regulatory Restrictions/Control)

The Personal information on living individuals:¹⁸ The Personal Information Protection Act defines personal information as any of the following

1. Information that identifies a particular individual by full name, resident registration number, image, etc.
2. Information which, even if by itself does not identify a particular individual, may be easily combined with other information to identify such individual.
3. Information under item 1 or 2 that is pseudonymized¹⁹ and incapable of identifying a particular individual without the use or combination of additional information for restoration to the original state ("pseudonymous data").

Article 3 of the Personal Information Protection Act sets forth the principles of personal information protection in detail. A personal information processor has the obligation to comply with the 'principle of clarity of purpose,' which requires that the purpose of data processing should be clearly ascertained, as well as, the 'principle of minimal collection' which calls for collection of personal data to a minimum extent necessary to achieve a purpose. The Personal Information Protection Act also sets forth stringent requirements

¹⁷ The three major data privacy laws refer to the Personal Information Protection Act, the Act on Promotion of Information and Communications Network Utilization and Information Protection, Etc. and the Credit Information Use and Protection Act.

¹⁸ Subpara. 1 of art. 2 of the Personal Information Protection Act

¹⁹ The term "pseudonymization" means a procedure to process personal information so that the information cannot identify a particular individual without additional information by deleting, in part, or replacing all or a part of such information (subpara. 1-2 of art. 2 of the Personal Information Protection Act).

concerning collection and use of personal information²⁰ and places limitations on the use or provision of personal information for any non-designated purpose.²¹

A personal information processor is allowed to process pseudonymous data without the consent of data subjects for the limited purpose of statistical compilation, scientific research, and public archiving. However, combination of pseudonymous data by and between different personal information processors shall be carried out by a specialized institution designated by the Personal Information Protection Commission or by the head of an appropriate central administrative agency.²²

Credit information is information used by parties for commercial transactions, including financial transactions, to determine the credit standing of the other party or to analyze their own financial transactions. The Credit Information Use and Protection Act ("Credit Information Act") defines personal credit information as 'credit information on living individuals excluding business and corporate information.'²³

As in the case of the Personal Information Protection Act, the Credit Information Act stipulates that it is required, in principle, to obtain the consent of data subjects for the purpose of collecting personal credit information, while setting forth the exceptions to such requirement.²⁴ However, the Credit Information Act has a broader scope of exceptions by permitting collection of publicly announced or disclosed information without the consent of data subjects.

The Act on Promotion of Information and Communications Network Utilization and Information Protection, Etc. ("Information and Communications Network Act") provides that no information and communications service provider shall conclude an international contract involving users' personal information in violation of this Act,²⁵ which is intended to protect against cross-border transfer of personal information. With regard to cross-border transfer of personal information, it is required to obtain the consent of data subjects by giving prior notice and taking protective measures for "provision" of such information, while necessary matters must be announced or notified for its "entrusted management or storage."²⁶ In addition, the Information and Communications Network Act embraces the principle of reciprocity by providing that comparable restrictions may be imposed on information and communications service providers in a foreign country, which limits cross-border transfer of personal information.²⁷

²⁰ Arts. 15 and 16 of the Personal Information Protection Act.

²¹ Art. 18 of the Personal Information Protection Act.

²² Arts. 28-2 and 28-3 of the Personal Information Protection Act.

²³ Subpara. 1 of art. 2 of the Credit Information Act.

²⁴ Arts. 15(1) and 15(2) of the Credit Information Act.

²⁵ Art. 63(1) of the Information and Communications Network Act.

²⁶ Ar. 63(2) of the Information and Communications Network Act.

²⁷ Art. 63-2 of the Information and Communications Network Act

Part One: Basic principles: Character, source and nexus

1.1. General overview

In 2018 the size of the entire data industry market was estimated at KRW 15.1545 trillion. It is broken down into data solutions (KRW 1.7561 trillion), data infrastructure implementation and consulting (KRW 6.1934 trillion), and data services (KRW 7.2050 trillion), where the data services market took up the largest portion with 47.5%.²⁸ Data services can be classified into three categories: data transaction services seeking direct sale or brokerage of data, information provision services based on data or database, and analytical services providing data analysis findings. Among these categories, information provision services account for the largest share of 89.5%.²⁹

Especially in private sectors, convergence of information in wide-ranging areas including finance, communications, distribution, medical care and education has led to emergence of new 'personalized' services. With the amendment of the three major data privacy laws, an 'open banking' platform named 'MyData' is expected to pave the way for big data development in the Korean financial industry. On 2 December 2019, the National Information Society Agency and MBN, a broadcasting network in Korea, jointly established a private data exchange called the Korea Data Exchange ("KDX"). As a big data platform concerning distribution and consumption, the KDX enables data transactions in fourteen categories, i.e. economy & industry, finance, health & medical care, consumption, distribution, communications, logistics, real estate, commercial districts & consumer path to purchase, market prices, information & search, SNS, public data, and media. This exchange has created new occupations such as data brokers connecting suppliers and users and financial data specialists managing de-identified data and supporting its safe use.

In a bid to enhance security and reliability of the data market, the Korean financial authorities are poised to launch a full-fledged data brokerage system in 2020, with the Financial Security Institute at the center. These efforts are likely to contribute to tapping a new industrial sector by securing financial data based on industrial convergence, which encompasses medical care, information and communication technology (ICT), and manufacturing.

1.2. Character

Data exhibits unique features in a competitive market. Persons who reserve rights to data may limit others' access to the data or prevent sharing of the data including personal information. Meanwhile, data is characterized by 'non-rivalry' as it does not disappear despite its transfer or transaction and by 'perpetuity' as it cannot exclude other users without specific actions and is not amortized over the course of use. In practice, it is possible to control data even in the absence of a legal right thereon. As a result, the parties to data transactions seek protection by resorting to exclusive rights or damage claims, etc. Further, data creates value by exploring meaningful tendencies and regularities in a myriad of

²⁸ Korea Data Agency, 2019 Data Industry White Paper, 22nd issue, 2019, p.85.

²⁹ Korea Data Agency, op.cit., p.92.

unstructured information based on natural language processing technologies. Such data transactions are being exclusively traded under de facto control.

In terms of sales, customer data are conceptualized characteristics of individual customers, which constitute personal information. Patterns of data use collected by mobile communications service providers, information on financial transactions acquired by financial companies, and profiling information on any web portal or SNS may maximize sales by offering or recommending optimal services to consumers based on their usage patterns. Such personal information is the most sophisticated type of personal data and also a significant business asset.

As described above, data itself may be perceived as an intangible asset. Nonetheless, the character of data transactions may vary depending on their nature. The Value-Added Tax Act defines “goods” as any object or right with property value and “services” as all labor and activities, other than goods, that have property value. The former is further specified into ‘all corporeal things including commodities, products, raw materials, machinery and buildings’ and ‘natural force that can be managed such as electricity, gas, and heat’.³⁰ By contrast, the latter is defined as ‘all labor and other activities which fall under 14 statutory business sectors’,³¹ which include “information and communications business.”

With respect to the nature of data, the Supreme Court of Korea has rendered a decision to the effect that ‘game money’ falls under goods under the Value-Added Tax Act.³² In the above court case, game users purchased game money or cyber money for ‘Lineage’ (a computer game) from either a game service provider or other game users on a website of a game item brokerage service provider, then sold it to other game users and received payment via the brokerage service provider. The court held that “game money, which is a transaction object with property value, as well as an intangible with a right or property value enabling use of a game as part of online game services, is characterized as goods under the Value-Added Tax Act and the sale of game money constitutes the ‘supply’ of goods.”

Game money is a tangible or intangible outcome acquired by game users (scores, prizes, virtual money or in-game currency³³), and is recognized as a type of data in the Game Industry Promotion Act.³⁴ Such data classifiable as intangibles with property value such as game money, may be categorized as ‘goods’, and transfer of such data can be viewed as supply of goods. Accordingly, big data which is a result of generating and analyzing valuable data in large quantities, can also be classified as goods with its transfer recognized as supply of goods.

On the other hand, if the supply of data, as continuous provision of information, is acknowledged as falling under ‘information and communications business’, it may be categorized as ‘services’ set forth in the Value-Added Tax Act. In short, whether provision of data or big data represents supply of goods or services can be determined as follows: (i) if data or big data itself can fully function as ‘intangible with property value’ without the provider’s involvement, its provision would be considered transaction of goods; and (ii) if data or big data creates value through the provider’s involvement or act (e.g. data processing and handling), its supply would be deemed transaction of services.

As such, the nature of data transaction can vary, depending on whether it constitutes

³⁰ Art. 2 (Scope of Goods) of the Enforcement Decree of the Value-Added Tax Act.

³¹ Art. 3 (Scope of Services) of the Enforcement Decree of the Value-Added Tax Act.

³² Supreme Court Decision No. 2011Du30281 rendered on 13 April 2012.

³³ Art. 32(1)7 of the Game Industry Promotion Act.

³⁴ See each subpara. of art. 18-3 of the Enforcement Decree of the Game Industry Promotion Act.

transfer of ownership of goods or provision of services as requested by the consumer.

Meanwhile, as stated above, data or a database may also be protected as a copyright under certain circumstances (e.g. cases where a method to process information including data becomes a subject matter of patent or a database falls under a compilation work because of its creativity). A transaction authorizing use of such copyright would be recognized as a license transaction.

According to the Korean National Tax Service's authoritative interpretation, 'consideration for information that a foreign corporation provides to a domestic corporation by collecting and compiling publicly available data constitutes personal service income, whereas it constitutes royalty income if it is consideration for provision of unpublished technical information related to industrial, commercial or scientific knowledge and experience' (Written/Internet/Onsite Counseling Team II-1547, 27 September 2005). Similarly, another authoritative interpretation regarding 'income classification of consideration for computing and information service paid to a US corporation' held that if provision of such computing and information services entails transfer of accumulated experience, know-how or technology, consideration paid constitutes royalty income (*Gukjo, Seoe*46017-11635, 15 September 2003). Such classification standards seem to be largely in line with the concept of royalty defined in the OECD Model Tax Convention.

Although not directly relevant to income classification, in September 2019, the Tax Tribunal of Korea rendered a judgment concerning whether 'purchase of news information and data in an electronic format (XML file) under an information provision contract with a newspaper publisher' by a taxpayer who operates a web portal, falls under tax-exempt transactions pursuant to the Value-Added Tax Act, since transaction objects under the information provision contracts are not limited to electronic publications by media outlets and rather "encompass all news information and data" produced during an agreed period of time, consideration therefor cannot be regarded as subscription fees.³⁵

To elaborate, the taxpayer in the above case was under a contractually agreement to receive 'news information' in the form of news articles, videos, images, texts, and data as well as 'data information' in the form of images, texts, and data from newspaper publishers. The issue was whether the taxpayer's payment to the newspaper publisher constitutes 'newspaper subscription fees' subject to exemption of value-added tax under the Value-Added Tax Act, which stipulates that '(Internet) newspaper subscription fees' shall be exempt from a value-added tax for the purpose of supporting people's cultural life. The Tax Tribunal found that such 'information' is distinguished from 'newspapers' and accordingly subject to value-added tax, acknowledging input tax deductibility in favor of the taxpayer.

1.3. Source

Whether a foreign corporation's income arising from data transactions constitutes domestic source income or not, hinges on income classification discussed in section 1.2 above and whether such income is taxable is determined by the Corporate Tax Act of Korea or an applicable tax treaty with Korea, if any. Income from data transactions does not fall under domestic source business income unless it is attributed to a domestic establishment or permanent establishment under the Corporate Tax Act. Moreover, such income does not

³⁵ *Joshim* 2019Jung0193, 17 September 2019

constitute domestic source personal service income unless it is recognized as an outcome of services provided by actors or musicians, services provided by professional athletes, services provided by attorneys-at-law, certified public accountants, architects, surveyors, or patent attorneys, or services provided by persons who have professional knowledge or special skills in the fields of science & technology, business administration, and the like by using such knowledge or skills.³⁶ On the other hand, if data is acknowledged as a copyright or know-how and the use of such data or payment therefor occurs in Korea, such consideration and/or income arising from transfer of such right, etc. falls under domestic source royalty income.³⁷

The abovementioned National Tax Service's authoritative interpretation (Written/Internet/Onsite Counseling Team II-1547, 27 September 2005; *Gukjo, Seoe*46017-11635, 15 September 2003) also states that if compensation for information constitutes 'consideration for provision of unpublished technical information related to industrial, commercial or scientific knowledge and experience' or entails 'transfer of accumulated experience, know-how or technology', such consideration falls under royalty income and thus should be withheld at source in Korea.

1.4. Nexus

Korea has not adopted a digital service tax ("DST") which are being considered by countries like France. Neither does Korea have any special nexus rule, such as a significant digital presence tax nexus, in place. Ordinary business income generated by data transactions is taxable in Korea only in cases of a resident or a permanent establishment ("PE"), the existence of which may be acknowledged if a server necessary to collect, implement or process data is located in Korea.

Based on the above, in the example in section 10.1 of the Directive, Website Co or Broker Co, both non-residents, are not taxed in Korea on its business income arising from data transactions unless it has a data processing server in Korea. Likewise, Animal Data Co presented in example section 10.2 is not subject to taxation in the country of residence of Information Site Co on mere grounds that it sells data to Information Site Co, a foreign corporation. Regarding the example in section 10.3, the sensor and the data center would be taxable in Korea if they fall under PEs in accordance with relevant standards, which will be determined by an applicable tax treaty, with respect to which interpretation the Korean tax authorities tend to respect the Commentaries on the articles of the OECD Model Tax Convention. The Corporate Tax Act of Korea provides that if a certain place used only for 'information collection and provision' has been utilized to perform preparatory or auxiliary activities, it does not constitute a PE.³⁸ If it is determined that data collection through the above sensor or provision of data-based services through the above data center constitutes an important and essential part of the Service Co's business, it would be considered a PE.

³⁶ Subpara. 6 of art. 93 of the Corporate Tax Act.

³⁷ Subpara. 8 of art. 93 of the Corporate Tax Act.

³⁸ Art. 94(4)3 of the Corporate Tax Act.

Part Two: Application of treaty principles

2.1. General overview

As stated above, since data is found useful for various applications in many areas, it is often being traded at a certain price. Big data, which is created by analyzing a large volume of data in a desired format, also originates from data, and it is therefore important to establish the legal nature of data. Although there is no law in Korea that clearly defines the legal nature of data, there are individual laws that address data as discussed below.

Data is a subject matter of copyrights such as *sui generis* rights according to the Copyright Act, represents customer information, i.e. a trade secret, under the Unfair Competition Prevention and Trade Secret Protection Act, and both data and customer information constitute a business asset subject to goodwill under the Commercial Act. In addition, data falls under personal information under the Personal Information Protection Act and the Information and Communications Network Act, and personal credit information under the Credit Information Act. Therefore, data which is traded under applicable laws in effect constitute goods with economic value, particularly intangibles as business assets.

Intangible assets are incorporeal assets held by companies for the purpose of production of goods, provision of services, leasing to other persons, or administration, which can be identified, are controlled by companies, and have economic value in the future. The following examines whether data under current tax laws fall within the range of intangible assets.

2.1.1. Corporate Tax Act

The Generally Acceptable Accounting Principles (“GAAP”) broadly categorize assets into current assets and fixed assets, and the latter is further broken down into investment assets, tangible assets, and intangible assets.³⁹ Although the Corporate Tax Act does not separately define the scope of assets, it differentiates between tangible and intangible assets when it comes to the scope of depreciable assets.⁴⁰ Intangible assets refer to goodwill, design right, utility model right, trademark right, patent right, fishing right, quarrying right, right to manage toll roads, irrigation right, right to use electricity and gas supply facilities, right to use industrial waterworks, right to use waterworks, right to use heat supply facilities, mining right, right to use exclusive telegraph and telephone facilities, right to use railroad facilities, right to manage sewage treatment and disposal plants, right to manage waterworks facilities, right to use dams, development costs, etc.⁴¹ Goodwill refers to intangible property value, namely ‘excess earning power’ whereby a company can generate more profit than its competitors’ ordinary profit due to its operational functions or features including tradition, social reliability, location, special manufacturing technology or transactional relations.⁴² However, data is not specifically included in the scope of intangible assets in the Corporate Tax Act.

Under the Commercial Act and the Unfair Competition Prevention and Trade Secret

³⁹ Among the examples of intangible assets are goodwill, industrial property right (patent right, utility model right, design right, trademark right, etc.), mining right, fishing right, leasehold right (including superficies), start-up expenses, development costs, and other intangible assets.

⁴⁰ Art. 23 of the Corporate Tax Act and art. 24(1) of the Enforcement Decree of the Corporate Tax Act.

⁴¹ Each item of art. 24(1)2 of the Enforcement Decree of the Corporate Tax Act.

⁴² Supreme Court Decision No. 95Nu18697 rendered on 28 May 1997.

Protection Act, customer information is recognized as a trade secret or business asset, thus in light of such definition, data may constitute as goodwill under the Corporate Tax Act and accordingly be deemed an intangible asset. Moreover, a company's data includes all of the information it owns including customer and transaction information, which may be deemed as a part of goodwill.

Furthermore, data generated by a patented invention or an object can have a patent right and such database is deemed to have a copyright under the Copyright Act. In this context, data as a subject matter of such rights constitutes an intangible asset. Accordingly, data can be recognized as an intangible asset under the Corporate Tax Act.

Meanwhile, subparagraph 8 of article 93 of the Corporate Tax Act stipulates that if any of the following assets or rights, listed below, are used in Korea or payment for the use is made in Korea, any income arising from such payment or rights transfer shall be domestic source royalty income, which is taxable in Korea:

1. Copyrights, patent rights, trademark rights, designs, models, and drawings of academic or artistic works (including movie films); secret formulae or processes; films and tapes for radio and television broadcasts; and other similar assets or rights;
2. Information or know-how related to industrial, commercial, or scientific knowledge and experience;
3. Other similar property or rights included in the definition of royalties in a tax treaty that determines domestic source income on the basis of the place of use [referring to a patent right, utility model right, trademark right, design right, or any other right requiring registration for its exercise, which has not been registered in Korea, but is practically exercised or used in Korea as in the case where a manufacturing method, technology or information contained therein concerns manufacturing or production in Korea].

Considering that the subject of royalty income under the Corporate Tax Act includes intangible assets, data may also be regarded as a subject of royalty income taxation.

2.1.2. *Income Tax Act*

Although the Income Tax Act also does not set forth any clear definition of data, data should be regarded as a component of goodwill as in the case of the Corporate Tax Act. The scope of intangible assets in the Income Tax Act is the same the Corporate Tax Act.⁴³ Meanwhile, the Income Tax Act defines money or other valuables received in return for transfer or leasing of a mining right, fishing right, industrial property right, industrial information, industrial secret, trademark right, goodwill (including a right to lease a store as prescribed by Presidential Decree), rights incidental to permission of earth, sand or rock collection, right to develop and use underground water, or other assets or rights similar thereto as other income.⁴⁴ Therefore, assuming that data is a part of goodwill, income earned by an individual through leasing or transferring data should be recognized as other income. As the Income Tax Act has adopted the principle of comprehensive taxation by type in order to impose taxes on new types of income, transfer of data may also be regarded as 'transfer of other assets or rights similar thereto.'

⁴³ Art. 62(1)2 of the Enforcement Decree of the Income Tax Act.

⁴⁴ Subpara. 7 of art. 21 of the Income Tax Act.

2.1.3. *Value-Added Tax Act*

As mentioned in section 1.2 above, the Value-Added Tax Act describes “goods” as objects and rights with property value and “services” as all labor and activities with property value, other than goods. The former is classified into ‘all corporeal things including commodities, products, raw materials, machinery, and buildings’ and ‘natural force that can be managed such as electricity, gas, and heat’⁴⁵ while the latter is defined as ‘all labor and other activities which fall under fourteen statutory business sectors’,⁴⁶ which include “information and communications business.”

According to the Supreme Court’s position, certain types of data which can be categorized as intangibles with property value, including game money, may belong to goods in which case, transfer of such data would be viewed as supply of goods. In such case, big data which is a result of generating and analyzing large volume of data, may also be classified as goods, with its transfer recognized as supply of goods.

On the other hand, if supply of data, as a continuous provision of information, is acknowledged as ‘information and communications business’, it will fall under the services under the Value-Added Tax Act. In short, as mentioned in section 1.2, whether provision of data or big data represents supply of goods or services can be determined as follows: (i) if data or big data itself can fully function as ‘intangible with property value’ without the provider’s involvement, its provision would be considered transaction of goods; and (ii) if data or big data creates value through the provider’s involvement or act (e.g. data processing and handling), its supply would be deemed transaction of services.

As such, the nature of data transaction can vary, depending on whether it constitutes transfer of ownership of goods or provision of services as requested by the consumer.

2.1.4. *Adjustment of International Taxes Act*

The Adjustment of International Taxes Act determines how to handle international data transactions. “International transaction” means a transaction, including trading or leasing of tangible or intangible property, provision of services, lending or borrowing of money, and all other transactions involving profits or losses and property of the parties to transactions, in which either or both of the parties are non-resident(s) or foreign corporation(s) (excluding a domestic establishment of a non-resident or foreign corporation).⁴⁷

The Adjustment of International Taxes Act also provides for the scope of intangible assets, which is slightly different from the scope in the Corporate Tax Act or Income Tax Act. Intangible assets refer to assets usable for business activities (referring to assets other than tangible assets and financial assets) which can be owned or controlled by specific persons and for which reasonable compensation is usually paid in the event of arm’s length transactions such as assignment or licensing, including the following: (i) patent rights under the Patent Act; (ii) utility model rights under the Utility Model Act; (iii) design rights under the Design Protection Act; (iv) trademark rights under the Trademark Act; (v) copyrights under the Copyright Act; (vi) service mark rights, trade names, brands, know-how, trade

⁴⁵ Art. 2 (Scope of Goods) of the Enforcement Decree of the Value-Added Tax Act.

⁴⁶ Art. 3 (Scope of Services) of the Enforcement Decree of the Value-Added Tax Act.

⁴⁷ Subpara. 1 of art. 2 of the Adjustment of International Taxes Act.

secrets, customer information, and customer networks; (vii) business rights granted by the government including contractual rights, quarrying rights and toll road management rights; and (viii) goodwill and going concern value.⁴⁸

The Adjustment of International Taxes Act includes copyrights under the Copyright Act, trade secrets, customer information, and customer networks, which ordinarily involve data, as intangible assets. Given such fact, it is reasonable to recognize data as intangible assets under current tax laws in Korea.

2.1.5. *Sub-conclusion*

Among current tax laws in Korea, the Adjustment of International Taxes Act contains a definition consistent with the legal nature of data. Considering the definition of intangible assets provided in the Adjustment of International Taxes Act, data may be regarded as intangible assets for the purpose of taxation. Data transaction may be performed in the form of trading or leasing, provision of services, lending or borrowing of money, and other transactions involving profits or losses and property of the parties to transactions. Accordingly, data transactions would be possible in the form of services, licensing of intangible assets, and leasing of information, sale or exchange.

2.2. Data in the context of tax treaties

In recent tax treaties, “royalties” are defined as payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work (including cinematograph films and films or tapes used for radio or television broadcasting), any patent, trademark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.⁴⁹ Therefore, any consideration for data which is deemed an intangible asset under current tax laws in Korea would be subject to royalty provision under tax treaties.

According to article 8 of the Korea-US tax treaty,⁵⁰ tax shall be imposed on business income if it is attributable to a PE. Therefore, if a PE exists in the contracting state, business income shall apply to the extent that the property or rights giving rise to royalties⁵¹ are effectively connected with the PE. The tax imposed by one of the contracting states on royalties derived from source within that contracting state by a resident of the other

⁴⁸ Art. 6-3(1) of the Enforcement Decree of the Adjustment of International Taxes Act.

⁴⁹ Art. 12(3) of the Korea-Singapore tax treaty.

⁵⁰ Entered into force on 20 October 1979.

⁵¹ The Korea-US tax treaty adopts the following definition: the term “royalties” means (a) Payment of any kind made as consideration for the use of, or the right to use, copyrights of literary, artistic, or scientific works, copy rights of motion picture films or films or tapes used for radio or television broadcasting, patents, designs, models, plans, secret processes or formulae, trademarks, or other like property or rights, or knowledge, experience, or skill (know-how), or ships or aircraft (but only if the lessor is a person not engaged in the operation in international traffic of ships or aircraft); and (b) gains derived from the sale, exchange, or other disposition of any such property or rights (other than ships or aircraft) to the extent that the amounts realized on such sale, exchange, or other disposition for consideration are contingent on the productivity, use, or disposition of such property or rights (Art. 14(4) of the Korea-US tax treaty).

contracting state shall not exceed 15 percent of the gross amount thereof.⁵² However, royalties derived from copyrights or rights to produce or reproduce any literary, dramatic, musical, or artistic work, by a resident of one contracting state, as well as, royalties received as consideration of the use of, or the right to use motion picture films including films and tapes used for radio or television broadcasting, may not be taxed by the other contracting state at a rate of tax which exceeds ten percent of the gross amount of such royalties.⁵³

The recently executed Korea-Singapore tax treaty⁵⁴ provides that royalties arising in a contracting state and paid to a resident of the other contracting state may be taxed in that other state.⁵⁵ However, royalties arising in a contracting state may also be taxed in that state according to the laws of that state, but if the beneficial owner of the royalties is a resident of the other contracting state, the tax so charged shall not exceed five per cent of the gross amount of the royalties.⁵⁶ The foregoing provisions shall not apply if the beneficial owner of the royalties, being a resident of a contracting state, carries on business in the other contracting state in which the royalties arise through a PE situated therein and the right or property in respect of which the royalties are paid, is effectively connected with such PE. In this case, tax on business profits may be imposed.⁵⁷

According to such tax treaties, no tax may be imposed in Korea against a company engaging in data transactions unless it has a PE in Korea. However, if payment for a data transaction is classified as royalty income, such income may be taxed in Korea pursuant to the tax treaties.

Part Three: Transfer pricing

Cross-border data transactions may either be classified as transaction of goods (intangible assets) or services, depending on the case.

The Korean Adjustment of International Taxes Act, like the OECD TP Guidelines, sets forth five arm's length pricing methods, requiring that the most appropriate method be adopted.⁵⁸ There is no particular discussion on a preferred method that should apply to data transactions or provision of goods or services where the value or efficiency has been enhanced by the enterprise's use of big data. However, in light of the fact that the Korean tax authority has increasingly applied a profit split method to recent transactions involving intangible assets, a profit split method can be taken into account as a reasonable arm's length pricing method if it is believed that an intangible asset has been created as a result of the use of big data.

As joint development (defined below) of big data is similar to joint development of an intangible asset in particular, it is worthwhile to examine the related provisions as follows:

In the case where a resident enters into an agreement with a foreign related party, in advance, on the sharing of costs, expenses, and risks ("costs, etc.") so as to jointly develop or

⁵² Art. 14(1) of the Korea-US tax treaty.

⁵³ Art. 14(2) of the Korea-US tax treaty.

⁵⁴ Entered into force on 31 December 2019.

⁵⁵ Art. 12(1) of the Korea-Singapore tax treaty.

⁵⁶ Art. 12(2) of the Korea-Singapore tax treaty.

⁵⁷ Art. 12(4) of the Korea-Singapore tax treaty.

⁵⁸ Art. 5(1) of the Adjustment of International Taxes Act.

secure an intangible asset (“joint development”) and carries out such joint development in compliance with the agreement, the tax authorities may determine or correct the resident's tax base and tax amount by adjusting the resident's share of costs, etc. on an arm's length basis if the resident's share of costs, etc. is less or more than its share of costs, etc. on an arm's length basis.⁵⁹ If the resident has determined the shares of the respective participants by reasonably allotting costs, etc. for the intangible asset jointly developed with a foreign related party, but the benefits expected from the jointly-developed intangible asset (“expected benefits”) are subsequently changed in excess of a certain rate, the tax authorities may determine or correct the resident's tax base and tax amount by adjusting the original shares of the respective participants on the basis of the expected benefits as changed.⁶⁰

Change in excess of a certain rate refers to the case where the resident's expected benefits, out of total benefits anticipated at the time of initial conclusion of the agreement, have increased or decreased by at least 20/100, when compared with the number of expected benefits materialized following development of the intangible.⁶¹

Part Four: Special regimes

4.1. General overview

In Korea, no specific discussion is currently underway concerning taxation of big data-based goods or services. In general, the value (price) of big data-based goods or services is expected to include consideration for added value derived from big data collection and utilization. However, if the tax authorities find that such price does not properly incorporate the value of big data collection or processing or that income classification has been performed erroneously, the tax authorities may challenge such arrangement.

4.2. DST

Korea has not adopted a digital service tax (DST) such as the one being considered in countries like France.

4.3. Incentives

The current Restriction of Special Taxation Act grants tax incentives, though temporary, for big data facility investments, since big data is considered new growth technology. Big data collection, refinement, storage, and processing technologies as well as big data analysis and forecast technologies are considered a form of new growth/original technologies.

Looking into more detail, if a Korean resident makes investments in any facility for commercialization of new growth technologies no later than 31 December 2021 and satisfies

⁵⁹ Art. 6-2(1) of the Adjustment of International Taxes Act.

⁶⁰ Art. 6-2(2) of the Adjustment of International Taxes Act.

⁶¹ Art. 14-4(1) of the Adjustment of International Taxes Act.

all of the following requirements listed below, he/she shall be entitled to deduct an amount equivalent to 5%, 7%, or 10% of his/her investment from the income tax or corporate tax for the taxable year in which such investment is made.⁶²

1. The ratio of research and human resources development costs to revenues for the taxable year immediately preceding the taxable year in which the national begins such investment shall be at least 2/100, and research and development costs for new growth/original technologies, etc. according to article 10(1)1 shall meet the requirements prescribed by Presidential Decree; and
2. The number of full-time employees in the corresponding taxable year shall not be smaller than that of full-time employees during the immediately preceding taxable year, provided that tax incentives shall apply even if the number of full-time employees in the corresponding taxable year is smaller than that of full-time employees during the immediately preceding taxable year in case of a small or medium enterprise.

Further, concerning development of new growth/original technologies, i.e. big data technologies, if a Korean resident incurred research and human resources development costs in a taxable year, the amount of such costs shall be subtracted from the income tax (limited to income tax on business income) or corporate tax for the relevant taxable year. In such case, the foregoing shall apply only to research and human resources development costs incurred no later than 31 December 2021.⁶³

4.4. Barter treatment

The Korean tax authority does not seem to have attempted to impose taxes on digital services users' use of free-of-charge services in return for service providers' user data collection by recognizing it as a barter transaction with a consideration.

Part Five: Indirect tax

In July 2015, Korea amended the applicable laws to enhance equality in taxation between domestic and foreign developers, allowing a foreign open market operator to pay value-added tax based on simplified business registration in case a domestic consumer purchases electronic services, including game/voice/video files or software, in a foreign open market.⁶⁴

However, the amended Value-Added Tax Act of 2015 was criticized for not adequately incorporating the currently available forms of electronic services, because a value-added tax is levied only when a foreign business operator provides certain electronic services such as 'game/voice/video files or software activated by a mobile communication terminal device, computer or the like.' Under these circumstances, 'Internet advertising, remote education, and electronic publishing, cloud services, sharing economy services, and remote implementation, maintenance, repair, and management of websites and computer

⁶² Art. 25-5 of the Restriction of Special Taxation Act.

⁶³ Art. 10(1) of the Restriction of Special Taxation Act.

⁶⁴ Art. 53-2 of the Value-Added Tax Act.

systems, etc.’ were added to the scope of electronic services provided by foreign business operators subject to a value-added tax, along with business-to-business transactions.

Taxable electronic services refer to any of the following services, which are supplied by using an information and communication network according to subparagraph 2(1)1 of the Act on Promotion of Information and Communications Network Utilization and Information Protection, Etc. and are made available in Korea by means of a mobile communication terminal device, computer, or the like.⁶⁵

1. Services including game/voice/video files or software as prescribed by Presidential Decree
2. Advertising services
3. Cloud computing services under subparagraph 3 of article 2 of the Act on the Development of Cloud Computing and Protection of Its Users
4. Services engaging in brokerage of goods or services as prescribed by Presidential Decree
5. Other services similar thereto as prescribed by Presidential Decree

In case a foreign business operator provides electronic services, including data supply, in Korea through a third party, such third party shall be deemed to provide those electronic services in Korea.⁶⁶

Part Six: Tax accounting

6.1. Recognition of transactions

Existing tax laws in Korea perceive data as a tradable intangible asset, thereby enabling taxation on data transactions based on recognition of profits and losses.

6.2. Capitalization and amortization

Under existing tax laws, an intangible asset refers to an economic status or legal right, which is incorporeal and acquired at a cost, among fixed assets. Intangible assets include industrial property rights (i.e. patent right, trademark right, utility model right, design right, trade name right, and commodity name), mining rights, fishing rights, licenses & franchises, copyrights, computer software, development costs, lease premiums, and usable and profitable donation assets.

Intangible assets are depreciable assets and shall be amortized in a manner prescribed by law. According to the GAAP, intangible assets must be systematically amortized over their estimated service life, which shall not exceed 20 years unless otherwise stipulated by applicable laws or contracts. Various amortization methods may be employed during their service life, but it is required to apply the straight-line method only to the extent that a reasonable amortization method cannot be determined.⁶⁷

⁶⁵ Main text of art. 53-2(1) of the Value-Added Tax Act.

⁶⁶ Art. 53-2(2) of the Value-Added Tax Act.

⁶⁷ Art. 26 of the Enforcement Decree of the Corporate Tax Act, art. 62 of the Enforcement Decree of the Income Tax Act.

Part Seven: Others

As big data transactions have been developing rapidly in diverse forms, it is imperative to set up guidelines and rules to determine how the income from data transactions will be characterized (i.e. royalties or business income) in the context of international taxation. Such initial guidelines and rules will need to be flexible as income classification may differ depending on intended usage of big data transactions. Ultimately, this will allow tax authorities around the world to provide some consistency when it comes to taxation of such principles.

Summary and conclusions

The legal analysis in the report finds that Liechtenstein does not have any special regulations that are exclusively limited to big data and its applications. Instead, several laws of different areas are to be applied, which state that no right and therefore no ownership can be acquired in digital data. Nevertheless, there is a distinction to intellectual property rights. The Liechtenstein copyright law protects computer programs, databases and data files as they are considered to be works of literature and art and are therefore protected. This does not hold for individual data and information. Data can be classified among others by their form: raw data, structured and aggregated data and the analysis of them. None of them when being transferred for free, qualify as a service. They only do if they are transferred in exchange for a payment according to the law on VAT (MWSTG). Also, data transactions may qualify as a license but that data cannot be leased. As a further result due to the possibility that data files qualify as intellectual creations, the creator of structured or aggregated data and their analysis owns the property rights and is therefore also able to sell or exchange them.

Additionally, by regarding the source of income, it is determined that data do not qualify as asset and are therefore not subject to asset-based tax. With regard to income tax, the income from data and data transactions may derive from self-employment or from legal entities that generate income from data usage, sales and transactions. However, as data itself is neither money nor has monetary value, it is not subjected to income tax. As one of the last results, it is also found that servers and websites usually do not qualify as permanent establishments and are therefore not subject to taxes in Liechtenstein. Nevertheless, in some very specific circumstances they may still qualify as taxable. This is further examined in the context of treaty principles that are based on the OECD guidelines. By answering the question of qualification of a server in another country as a permanent establishment that justifies the taxation of the payments attributable to that permanent establishment, the server characteristics are further examined. In addition to the significant functions and business activities that have to be performed at that place to qualify as a permanent establishment, the server has to be fixed locally, has to have a specific degree of independence and the possible power of disposition.

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² Tax Engineer, MSc, at actus ag in Liechtenstein. She has a background in taxes, accounting and commercial law, studied her Master of Finance in Liechtenstein and is a current Master student of US Tax Law in San Francisco as well as a current LL.M. student of Digitalization & Tax Law in Vienna. Her main focus within actus is acting as an interface between the IT and tax department i.e. dealing with technological innovations such as crypto and blockchain in the tax sector.

In the context of transfer pricing, the arm's length principle as well as the latest version of the OECD Transfer Pricing Guidelines (TPG) are to be applied in Liechtenstein. The approach when data are transferred does not differ from the approach of a normal transaction. In both cases: If the conditions of a transaction between two related parties differ from the usual conditions of two non-related parties, the suitable transfer pricing method with regard to the specific circumstances has to be determined and the firms have to be taxed based on the conditions between two non-related parties. Furthermore, it is stated that there is no Digital Service Tax (DST) or barter treatment in Liechtenstein. However, the Blockchain Act ensures legal security for business models using DLT. Liechtenstein additionally provides checks to support innovation and strengthen the development of digitalization. As the IP-Box regime was abolished in 2016, incentives that grant specific tax credits in relation to the development and exploitation of big data no longer exist.

Regarding VAT, it is found that if data or data products are sold, the selling company has to include VAT, because it qualifies as a service against payment. Furthermore, when studying the subscription tax, it is concluded that if a foreign or domestic company receives imported data carriers without market value that are not already exempt from VAT and either obtains such services for more than CHF 10,000 a year or has a company or permanent establishment in Liechtenstein that makes profits of more than CHF 100,000 a year, it is liable to subscription tax. This also results in the fact that he has to be registered for the purpose of subscription tax and VAT in Liechtenstein.

With regard to tax accounting, the expenses and revenues in relation to data have to be included in the balance sheet and the financial statements leading to the net income that is the starting point for taxational adaptations and corrections before calculating the tax liability. Furthermore, if data would be understood as an intangible asset, it has to be carried on in the balance sheet, which is uncertain up to now. Expenses for establishing databases and analytic tools, maintaining datasets and for collecting raw data would be considered as development expenses or expenses for the expansion of business operations and would be capitalized and amortized.

Finally, some issues that could arise if data transactions are liable to taxation are addressed. These are issues concerning documentation, monitoring and traceability as well as concerning the very individual value of data that can change with the data owner.

To summarize, as long as there are no payments related to data transactions or income, there are no taxes. As soon as a company generates income in providing, selling or transferring data, this income is subject to income tax. Furthermore, as there is a payment for a service, VAT is incurred in this context. Same holds for tax deductibility. If the data transactions are part of the business activity of that operating business the taxable net income is reduced by the expenses justified by the business activity and therefore also by the data transactions. As pointed out in some of the sections, often no clear regulations are yet in place, but as data will become even more valuable for companies the discussions about how to include them in the balance sheet and how to treat them for the purpose of taxation will go on and will introduce new approaches and regulations. Until then the standard principle "substance over form" applies.

Introduction: Legal background

It is not without reason that nowadays data are considered to be the “raw material of the 21st century” as they form the basis of the business model or provide the key to commercial success for many companies. Therefore, there is a need to clarify the legal ownership of data as well as property rights of data with regard to competition and data protection aspects.

First of all, Liechtenstein does not have a “Big Data Act” nor does it provide any special legal provisions that are expressly and exclusively limited to big data and its applications. Instead, a number of different laws may be applied, which are primarily based on the purpose and method of data processing and usually not on a specific type of data. To shed light on this issue we collaborated with Dr. Marco Dworschak, who researched and studied legal principles that apply to big-data transfers in the principality of Liechtenstein.³

Although Liechtenstein has adopted its own “Blockchain Act” (the Act on Tokens and Trusted Technologies, TVTG) which came into force on 1 January 2020 in order to provide a legally secure framework for the use of so-called disruptive technologies, this Act is not applicable to big data per se. Big data applications are not the main subject of the Blockchain Act, which focuses on the use of “trustworthy technologies”. However, if the business purpose of a company or service provider based on the Blockchain Act is aimed at big data applications, the Blockchain Act may apply.

Common law of property

Swiss law served and still serves as the basis for the reception of Liechtenstein property law, which judicature and doctrine are used for interpretation.⁴ Liechtenstein’s property law does not have a legal definition of a ‘thing’ (object). That is why the narrow concept developed according to the Swiss doctrine must be used. According to Swiss Law a “thing” (res) in the legal sense is an impersonal, physical, self-contained object that can be subjected to human domination.⁵

The substantive concept applicable under Liechtenstein law therefore presupposes the physicality of the object, which is why no “right in rem” can be acquired to digital data and data records under the applicable civil law and prevailing doctrine, i.e. no right of ownership (in the sense of property law) can exist to data records.⁶ However, a distinction must be made between this and the intellectual property rights dealt with in the section about copyright below.

In the context of the creation of the above mentioned „Blockchain-Act“, the discussion about an extension of the Liechtenstein concept of intellectual property rights was opened.⁷ The right of ownership is regulated in articles 20 – 33 of the Liechtenstein property law (SR).⁸

³ We would like to thank Marco Dworschak for his support in offering the legal evaluation and classification of big data and data transactions on the basis of the existing legal norms in Liechtenstein.

⁴ Layr/Marxer, Rechtsnatur und Übertragung von „token“ aus liechtensteinischer Perspektive, LJZ 2019/1, 11 (12f) mVa OGH LES 2005, 100, StGH LES 1994, 49.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Sachenrecht (SR) vom 31. Dezember 1922, LGBI 1923.004 <<https://www.gesetze.li/konso/1923004000>> (accessed on 28 September 2020).

Private property is guaranteed in article 34 paragraph 1 of the national constitution (LV).⁹ In contrast to the Liechtenstein concept of property, article 34 paragraph 1 LV is interpreted extensively; the material scope of protection of article 34 paragraph 1 LV therefore also includes all “subjective private rights of a property-law nature”, i.e. “mandatory rights”, “interests of monetary value”, “intellectual property rights” and acquired rights of a public-law nature.¹⁰ Following this extensive approach, value rights (see *sui generis* rights) also fall within the material scope of protection of article 34 paragraph 1 LV. Furthermore, various public-law bases must be consulted for the legal classification of data, in particular to clarify whether it is open data or common good.

For example, the Statistics Act, which regulates, among other things, the tasks and organization of official statistics and its data protection, defines “‘statistics’ as the aggregation of individual data for the quantitative description and evaluation of mass phenomena” (article 3 lit. a StatG).¹¹ This legal definition seems *prima vista* particularly relevant for the context of big-data analyses of interest here.

“Statistical data” are those “which are collected, processed, analyzed, disseminated and stored for statistical purposes. They record individual data and condensed data” (lit. d). The task of the official statistics of Liechtenstein is to provide the state and local authorities, as well as the public, with “relevant, reliable and coherent statistical information on society, the economy and the environment (article 4 paragraph 1 StatG). However, the Statistics Act is only of limited relevance for big data transfers or private big data analyses, as its scope is limited to the statistical activities of official statistics. The wording of article 11 paragraph 1 of the Statute suggests that big data could be used as a method for data collection and analysis by the Statistical Office. The Office of Statistics “may” collect statistical data in particular by interviewing persons, keeping and analysing registers and collecting administrative data. Furthermore, according to article 16 paragraph 1 StatG, statistical data may only be used for statistical purposes and is therefore generally subject to statistical confidentiality, unless there is an adequate legal basis according to paragraph 2 or there is no written consent from the persons concerned. The provisions of the StatG therefore do not explicitly prevent the use of big data, provided that it fulfills the aforementioned requirements. Also, statistical data may only be passed on to other foreign statistical offices and research institutes (exclusively) for statistical purposes (article 17 paragraph 1 StatG).

For the legal categorization of data, the Archives Act also provides a possible basis, whose definition of “documents” in article 3 paragraph 2 refers, among other things, to “other data carriers and files”. The Office of Culture has the right of disposal of documents to be qualified as archival material in accordance with article 5 paragraph 3 ArchivG. It is authorized “to open up the archival material according to archival-scientific aspects and to destroy documents that are not worthy of being archived. The Archive Act serves public and private documentation requirements and information needs for legal, political, administrative, scientific and cultural purposes, but its application is limited to documents

⁹ Verfassung des Fürstentums Liechtenstein vom 5. Oktober 1921, LGBI 1921.015 <https://www.gesetze.li/konso/1921015000?search_text=LV&search_loc=abk_list&lrr=&lgbliid_von=&observe_date=07.09.2020> (accessed on 7 September 2020); Anm.: Das Eigentumsrecht und „alle anderen Vermögensrechte der Religionsgesellschaften“ werden in Art 38 LV speziell verfassungsrechtlich geschützt; Staatseigentum findet in Art 8 Abs 2 LV eine eigenständige Rechtsgrundlage betreffend seiner Veräußerung.

¹⁰ Schädler in Liechtenstein-Institut (Hrsg.), Kommentar zur liechtensteinischen Verfassung. Online-Kommentar, Art 34 LV, Rz 15 (<verfassung.li>, Stand 28 June 2018).

¹¹ Statistikgesetz (StatG) vom 17. September 2008, LGBI 2008.271.

worthy of archiving. This includes documents that are of lasting value to state organs and the public for scientific, regional and family history research, for the protection of the legitimate interests of affected persons or third parties, and for the purposes of legislation, jurisdiction or administration (article 3 paragraph 3 ArchivG). According to the Ordinance on the Use of the National Archives issued on the basis of articles 10, 11 and 25 of the Archive Act, the use of the National Archives, i.e. access to the archive records, is only permitted to those persons “who (can) substantiate a legitimate interest” (ArchivV, article 1 paragraph 1). Furthermore, *ex lege* there is no right to make photocopies (article 11) or other reproductions (article 12). If the making of copies is permitted, this is subject to a fee.

The Geoinformation Act (GeolG) also provides for the provision of geodata on the territory of the Principality of Liechtenstein to the public by making it available to society, the economy and science for broad use in a simple, up-to-date, long-term manner, in the required quality and at reasonable cost (article 1). The GeolG serves the implementation of Directive 2007/2/EC. It comprises both comprehensive structured models (geodata models) and small-scale information since metadata are also covered by the access (e.g. article 6 GeolG). Article 11 GeolG provides for the principle of public access to geoinformation. Public access to spatial data sets can be restricted if it could adversely affect international relations or national security (article 12 paragraph 1 GeolG). Access restrictions must be interpreted strictly (article 12 paragraph 3).

In addition, special statutory information regulations, in particular the EEA-legally pre-determined environmental information law, apply. The Act on the re-use of public sector-information (“Informationsweiterverwendungsgesetz”, IWG), which aims to “facilitate the re-use of public sector documents, in particular to promote the creation of new information products and services”, appears to be of particular importance. Among other things, the IWG does not apply to documents which, for various public reasons (national security) but also private reasons (trade secrets, business secrets, etc.), must be kept secret and are subject to confidentiality. According to article 5 IWG, public sector bodies must make documents in their possession and available for re-use, available for re-use in all existing formats or languages and, as far as possible and reasonable, in open and machine-readable format together with the associated metadata. Both the formats and the metadata should, as far as possible, conform to formal open standards. Charges for the re-use of documents are limited to the marginal costs caused by reproduction, making it available and by redistribution. However, according to article 7 paragraph 1 public sector bodies can set conditions for the re-use of documents, which shall be proportionate, shall not lead to distortions of competition and shall not unnecessarily restrict the possibilities for re-use. The above-mentioned provisions of Liechtenstein national administrative law are relevant to the question of which data are to be regarded as common property or are publicly accessible and can therefore possibly be processed in the context of a big data analysis.

Copyright

Liechtenstein copyright law provides for the protection of computer programs. According to article 2 paragraph 3 URG,¹² which defines the concept of a work in more detail,

¹² Urheberrechtsgesetz, LGBl 1999.160 <<https://www.gesetze.li/konso/1999160000>> (accessed on 29 September 2020).

computer programs are considered works of literature and art.¹³ Data files are protected – implementing the corresponding provisions of article 2 of the Berne Convention and articles 4 and 5 of the WIPO Copyright Treaty¹⁴ – according to article 4 paragraph 1 URG, “provided that, with regard to selection and arrangement, they are intellectual creations of an individual character”. More specifically, article 4 paragraph 3 URG concerning databases states that they are considered collective works “provided that, by reason of the selection or arrangement of the material, they constitute an individual intellectual creation”. Existing rights to their contents are not affected. The national copyright regulation issued on the basis of the URG does not provide for any concretization for data collections or databases.

The valid Liechtenstein URG derives from the Swiss URG as a model and deviated only occasionally from the basis of reception.¹⁵ Individual data does not fall under the concept of a work and is therefore not protected by copyright, as can be seen from the wording of the second sentence of article 5 of the WIPO Copyright Treaty, ratified in Liechtenstein, according to which its protection “does not extend to the data or material itself”. Other Liechtenstein intellectual property laws also do not provide a corresponding legal basis for the protection of data. In the existing “*numerus clausus*” of intellectual property rights (trademarks, samples, patents, designs, topographies and varieties, models), the data cannot be classified. In other words: Data and information are not subject to any intellectual property rights restrictions and can be used freely, subject to other legal provisions (such as data protection).¹⁶

Sui generis rights

The Liechtenstein intellectual property law (see above URG) has special provisions in article 44c and article 45. Article 44c URG serves to protect information for the exercise of copyright and related rights. The scope of protection explicitly covers electronic information of the right holders.

As *sui generis* protection, article 45 URG granted producers of a database the right, under certain conditions, “to prohibit the extraction and/or re-utilisation of the whole or of a substantial part, in qualitative or quantitative terms, of the contents of that database” (paragraph 1). Extraction is understood to mean the permanent or temporary transfer of all or a substantial part of the contents of the database to another data carrier. Re-utilisation shall mean “making available to the public in any form whatsoever all or a substantial part” of the contents of the database by distribution of copies, (...) by on-line transmission or by other means of communication.

With the introduction of the “Blockchain Act” (TVTG), the provisions of the “Personal and Company law” (PGR) were adapted. So-called “value rights” were introduced, which depart from the corporeality focus of rights in rem explained above under general property law. Value rights were to be created by entry in the book of value rights. In the context of big data analyses, however, it should be noted that a qualification of “structured data” as a “book-

¹³ Vgl Briner, Big Data und Sachenrecht, Jusletter IT 21 May 2015, Rz 1.

¹⁴ WIPO-Urheberrechtsvertrag (WCT), LGBl 2007.051; Berner Übereinkunft zum Schutz von Werken der Literatur und Kunst, revidiert in Paris am 24 July 1971, LGBl 1999.173.

¹⁵ BuA 1998/48, 3.1.3.

¹⁶ Briner, *ibid.*, Rz 35; vgl Felder/Harmann, Die Liechtensteinische IP-Box. Kurzkommentierung ausgewählter Aspekte und Ausblick, LJZ 2013/2, 71.

entry right” within the meaning of section 81a of the Final and Transitional Provisions of the PGR, is out of the question as they are not likely to be seen as dematerialized securities.

Trade secret / Confidential information

In Liechtenstein, the protection of confidential information is based on a large number of different legal norms. In addition to general secrecy protection regulations, there are also branch specific regulations, which can be considered in the context of big data. First of all, the constitutional component must be mentioned since the protection of the secrecy of letters and correspondence is guaranteed in article 32 paragraph 1 of the Liechtenstein constitution (LV). This guarantee of protection primarily develops a defense-legal function and is thus in principle state-directed. Article 32 paragraph 1 LV corresponds to the guarantees of protection provided in other international agreements (see article 8 ECHR and article 17 of the International Covenant on Civil and Political Rights, short ICCPR).¹⁷

Following the case law of the Supreme Court, which places the protective content of article 32 paragraph 1 LV in the fundamental right of “private and secret sphere”, a broad scope of protection is recognized in the literature, according to which modern developments (“technologically new phenomena”) are also included in the scope of protection (e.g. telephone surveillance, e-mail traffic).¹⁸ In the literature even this catch-all effect of article 32 paragraph 1 LV is discussed as a fundamental right to anchor banking secrecy; it could therefore be considered as a constitutional basis for other secret protection provisions as well. The Supreme Court confirmed that banking secrecy is protected as part of the fundamental right to secrecy and privacy under article 32 paragraph 1 of the Federal Constitution, even if it has no formal constitutional status.¹⁹ Article 32 paragraph 1 LV also assumes an indirect third-party effect.²⁰ It is therefore of some relevance for big data. The Trade Secrets Directive has not yet been incorporated into the EEA Agreement.²¹ Proposed amendments for pre-adoption by adapting the Act against unfair competition (UWG)²² are the subject of parliamentary discussion. Thus, the Liechtenstein legal system does not yet contain its own genuine legal definition of a trade secret.²³

Contract law

The General Civil Code (ABGB) regulates contract law in its 17th main section in §§ 859 – 937 on personal property rights. Apart from analogous contracts, special legal provisions apply to contracts concluded electronically or by distance selling, which must be observed

¹⁷ Beck/Kley, Freiheit der Person, Hausrecht sowie Brief- und Schriftengeheimnis in Kley/Vallender (Hrsg), Grundrechtspraxis in Liechtenstein, LPS 52, Vaduz 2012, 131 (132).

¹⁸ Beck/Kley, 131 (138) mVa StGH 2006/19, Urteil vom 3 July 2006, LES 2008, 1 (4 ErWG 2.1).

¹⁹ Ibid. mVa StGH 2008/63, Urteil vom 31 March 2009 (29 ErWG 9.1); StGH 2005/50, Urteil vom 6 February 2006, LES 2007, 396 (405, ErWG 4.7).

²⁰ Ibid. (144ff).

²¹ <https://www.efta.int/eea-lex/32016L0943> (accessed on 8 September 2020).

²² Gesetz vom 22 October 1992 gegen den unlauteren Wettbewerb (UWG), LGBI 1992.121.

²³ BuA 2019/87, <<https://bua.regierung.li/BuA/default.aspx?nr=87&year=2019&backurl=modus%3dstw%26filter1%3dR%26filter2%3d784066066&sh=-936463739>> (accessed on 8 September 2020).

in the context of big data. The E-Commerce-Act (ECG)²⁴ as well as the Law on distance and off-premises contracts (FAGG)²⁵ are to be considered. Article 1 paragraph 1 ECG regulates the legal framework for certain aspects of electronic business and legal transactions, including the conclusion of contracts. It serves the implementation of Directive 2000/31/EC (E-Commerce Directive).²⁶ It regulates so-called information society services; according to article 3 paragraph 1 lit. a, all services provided “at a distance, usually in return for payment, by electronic means, at the individual request of a recipient of services, in particular (...) on-line information services (...) electronic search engines and data retrieval facilities, as well as services which transmit information over an electronic network, provide access to such a network or store information provided by a user”. Big data applications can fulfill the definition of commercial communication as provided for in article 3 paragraph 1 lit. d of the law, which is “advertising and other forms of communication designed to promote, directly or indirectly, the goods, services or image of a company, organization or individual”. This excludes “information which gives direct access to the activities of the undertaking, to the organization or to a natural person”.

Regulatory restrictions

The GDPR was incorporated into the EEA Agreement on 20 July 2018 and is therefore directly applicable in Liechtenstein. Thus, the principle of prohibition with reservation of permission applies, according to which any data processing (i.e. data relating to specific or identifiable natural persons) requires a corresponding legal basis in accordance with article 6 or 9 GDPR. For private big data applications, only the possibilities of consent (article 6 paragraph 1 let. a) or by contract (article 6 paragraph 1 let. b) appear to be conceivable scenarios. In both cases, the data subjects must be adequately informed about the data processing. In this case, the prohibition of coupling must be observed, according to which the conclusion of a contract may not be linked to consent to data processing. The question of the distribution of roles in terms of data protection law is also important here. Companies specializing in big data applications can be classified as both data protection officers and contract data processors. In both cases, they are obliged to comply with the principles of data protection law and to protect the rights of the data subjects.

Liechtenstein's financial markets law provisions (e.g. restrictions) may be applied to big data. In particular the Law on Banks- and Investment Firms (BankG)²⁷ and the Payment Services Act (ZDG) have special provisions concerning the processing of personal data. For the purpose of “strong customer authentication”, an authentication of special (e.g. biometric) data is possible according to article 24 ZDG (legal provision). According to article 100 paragraph 1 ZDG, operators of payment systems and payment service providers are entitled to process personal data if this is necessary for the prevention, investigation and

²⁴ Gesetz vom 16 April 2003 über den elektronischen Geschäftsverkehr (E-Commerce-Gesetz, ECG), LGBI 2003.133.

²⁵ Gesetz vom 3 September 2015 über Fernabsatz- und ausserhalb von Geschäftsräumen geschlossene Verträge (Fern- und Auswärtsgeschäfte-Gesetz), LGBI 2015.276. [https://www.gesetze.li/konso/2015276000?search_text=Fernabsatz&search_loc=text&lnr=&lgbliid_von=&observe_date=13 September 2020](https://www.gesetze.li/konso/2015276000?search_text=Fernabsatz&search_loc=text&lnr=&lgbliid_von=&observe_date=13%20September%202020).

²⁶ Richtlinie 2000/31/EG des Europäischen Parlaments und des Rates vom 8. Juni 2000 über bestimmte rechtliche Aspekte der Dienste der Informationsgesellschaft, insbesondere des elektronischen Geschäftsverkehrs, im Binnenmarkt (EWR-Rechtssammlung: Anh. XI – 5h.01).

²⁷ Gesetz vom 21 October 1992 über die Banken und Wertpapierfirmen (Bankengesetz, BankG), LGBI 1992.108.

detection of fraud in payment transactions. The processing of biometric data by banks and payment service providers is therefore not permitted without consent for the purpose of authentication as defined by the ZDG.

For the sake of completeness, reference should be made to the processing of personal data relevant to higher education, according to which institutions of higher education may transfer personal data to authorities that compile official statistics to be commissioned to recognised research institutions for the purposes of education controlling, education statistics and educational research.²⁸

Control

Guaranteed by article 10 paragraph 1 ECHR, the right to freedom of information has de facto constitutional rank (according to prevailing doctrine and jurisprudence, the ECHR is regarded as having de facto constitutional rank).²⁹ In addition to the guarantee contents of the ECHR, article 19 paragraph 2 ICCPR is relevant to the context of interest here, according to which freedom of expression includes the freedom “to receive and impart information and ideas of all kinds, whether spoken, written or printed, whether through works of art or any other means of one’s choice, regardless of frontiers”.

Part One: Basic principles: Character, source and nexus

1.1. General overview

To determine the basic character, source and nexus of big data transactions and data, the general legal regulations and circumstances should be examined to look for general and specific laws that are to be considered when dealing with big data. These specific laws as well as the areas of law related to data transactions are described in the section above “Introduction: Legal background”. Apart from these, there are no specific and direct laws on data transactions in general.

1.2. Character

After having given an overview about the general legal situation, the character of data has to be determined. With reference to the introduction, data can be characterized by form i.e. physical documents, electronical data, interviews, signals, by the purpose i.e. medical data, educational data, statistical data as well as by the condition of data i.e. raw data, aggregated data, structured data. Furthermore, it should be differentiated between public data and private data as well as between data that can be accessed and/or downloaded freely and data that is only available against payment.

²⁸ Gesetz vom 25 November 2004 über das Hochschulwesen (HSG), LGBl 2005.002, art. 50; Gesetz vom 25.11.2004 über die Universität Liechtenstein (LUG), LGBl 2005.003, art. 34.

²⁹ StGH 2005/89 from the 1 September 2006, LES 2007, 411; StGH 1995/21, LES 1997, 18 [28, Erw 6.1].

Free data transactions are for example free data downloads. With the download, the individual is able to get the data and to even use and proceed them after – in case this is allowed by the data provider. Some of the circumstances that allow the usage and the proceeding of data and some that do not, are stated in the legal introduction of this report. Free access to data - without the download option - can be compared with having access to the weather predictions but not being able to download the forecasts and the exact data. Also, the access to the weather predictions or the download possibility could be dependent on a payment, which is the case for data that is not free for the public.

Another characterization of data can be made due to their condition: raw data, aggregated or structured data and analyses of aggregated or structured data. In this report, raw data is understood as data that is neither processed nor evaluated. They are in the same format as when they were provided by the respective data source. In contrast, aggregated or structured data differentiate in their format from the format of the origin data source. Aggregated data for example combine a large number of individual information or observation into a single value or some smaller values.³⁰ Because lots of single data are combined to new values and information, it is not possible to trace back from these new data to the original data. Structured data is data, for which a certain structure, format or arrangement is prescribed.³¹ Databases are often a form of structured data if the single values are arranged in a certain form but are not yet aggregated. Lastly, there can also be an analysis of aggregated or structured data. A data analysis is a systematic examination of data in which the examined data sample is broken down into its elements. These elements are then examined and documented according to predefined specific criteria.³² Various data analytic methods from simple manual analyses to complex analysis using algorithm and further technical methods, can be used.

Additionally, it should be clarified under which circumstances data transactions should be classified as provision of a service, license of an intangible property, lease of property or sale/exchange of property. A provision of a service is classified in article 3 lit. e MWSTG as a service that is not a supply. Additionally, the transfer of intangible assets and rights is also considered to be a provision of a service. As data is not considered to be an object (see Introduction), it is immaterial and therefore an intangible asset. This results in the fact that a transfer of data against a payment can be viewed as a provision of a service. This accounts for raw data, structured data, aggregated data as well as the analysis of data, and can further be subdivided.

A license is the permission to use or own something granted by the owner of an industrial property right or copyright to a third party.³³ This would be the case if the data of the weather forecast can be used from a third party for internal processions against a regular fee. It results in the classification of the delivery of the data as a license of intangible property. Another differentiation should be made with regard to leasing. Leasing is understood as a specific form of renting an object from the producer itself or from a specific firm. As data is again not considered to be an object, data cannot be leased.

However, because of this missing classification of data as an object, a transaction of raw data cannot be seen as a sale/exchange of property as there exists no right of ownership to data records (see Introduction). This applies for raw data. When considering structured or

³⁰ The Glossary of Education Reform, 2015, Aggregated Data.

³¹ Enterprise Big Data Framework, 2019, Data Types: Structured vs. Unstructured Data.

³² Frankenfield, Jake, 2020, Data Analytics, Investopedia.

³³ Cambridge Dictionary, 2020, License; Merriam-Webster Dictionary, 2020, License.

aggregated data as well as the analysis of such data, it has to be clarified if it is a product of the specific data provider and therefore can be viewed as a provision of a service including the sale/exchange of property. Article 4 paragraph 1 URG states that structured or aggregated data files are intellectual creations of an individual character and are considered to be collective works. Again this does not hold for individual data. Furthermore, article 45 URG prohibits the extraction or reutilization of contents of such databases. The same counts for computer programs that are considered to be works of literature and art. To conclude, structured or aggregated data as well as analysis of these data are the collective work of an individual character, who owns the property rights of these results and is therefore also able to sell or exchange the property rights.

1.3. Source

In a next step, the source of income derived from data transactions is to be determined. In Liechtenstein, wealth taxes and income taxes exist on the personal tax level. Taking the example of a customer that gets free data for example from a website or authority in downloading them or specifically asking the data provider for these data, this first could give the impression of a gift. This would however not result in any tax liability as unique gifts are tax exempt in Liechtenstein.³⁴ The focus should rather be on the character of the data or of the gift. The tax exemption of unique gifts relies on wealth, which raises the question if data is considered to be wealth in a tax perspective. Wealth is classified in movable and immovable assets. As stated in the general property law part of the introduction, no right of ownerships is applicable to digital data and data records under civil law as data do not represent an object. Assets in contrast are clearly viewed as objects. Therefore, data cannot be viewed as an asset and therefore also do not qualify as wealth. This results in the fact that there is no wealth tax on any level related to data or data records.

Apart from wealth tax, there is also income tax. Article 14 Tax Law (SteG) defines the different sources of income. In the context of the tax liability of a resident in Liechtenstein, income in relation to data transactions can be made in the context of a self-employed activity (lit b and c). In this case, the resident must be self-employed which means he has a business that carries on an economic activity with the place of actual management in Liechtenstein. Same holds if the individual undertakes a liberal profession. Within his economic activity or liberal profession, he gains money in providing, transferring or selling data. The second source of income is in the area of legal entities that are subject to unlimited tax liability in Liechtenstein.³⁵ As the income tax is calculated on the basis of the taxable net income, income from providing, selling or transferring data also falls within the taxed income. Other sources of income derived from data transactions cannot be determined. As a next step, the liability of income has to be clarified. According to article 14 SteG all income existing in money or monetary value is liable to income tax. Income in monetary value covers all means that can be exchanged for money such as vouchers, securities or credits on current accounts. Data neither is money nor monetary value, so the data itself is not subject to income tax.

Public data can be split into data that can only be accessed publicly but the public is

³⁴ Steuergesetz (SteG), art. 15 para. 1 lit. c.

³⁵ SteG, art. 44.

not allowed to proceed or use it themselves, and into data that can be accessed, used and proceeded freely by the public. The latter is for example the case for the reutilization of the public sector documents regulated in the IWC as stated above. The data provider does not sell the data and is therefore not subject to any taxes. However, if he charges a fee for covering the marginal costs for providing any specific document because of an individual demand, this is a delivery or service in the context of his business and will lead to income tax and VAT as long as the data provider operates with the intention to make profits. Same is the case if he just sells the data to customers as this would be considered as a part of his business model and business purpose to make gains.

To summarize, as long as there are no payments related to data transactions or income, there are no taxes. As soon as a company generates income in providing, selling or transferring data, this income is subject to income tax. Furthermore, as there is a payment for a service, VAT is raised in this context. The same holds for tax deductibility. If the data transactions are part of the business activity of that operating business, the taxable net income is reduced by the expenses justified by the business activity and therefore also by the data transactions.³⁶ Therefore, for example also license payments for the use of data or the copyright can be deducted from the taxable net income in the case of natural persons.³⁷

1.4. Nexus

To conclude the first section of this report, the tax nexus is to be examined. In Liechtenstein, natural persons are subject to unlimited tax liability with their entire wealth and income if they have their habitual abode or residence in Liechtenstein.³⁸ The unlimited tax liability starts with the day the individual takes residence or habitual abode in Liechtenstein.³⁹ Residency is the place where the individual stays with the intention to stay there permanently. Habitual abode is the place where the individual is staying non-temporarily. The habitual abode is to be considered a stay of more than six months from the beginning, continuous in time.⁴⁰ Sporadically short-term interruptions are not taken into account. There is one more specification in article 2 lit. c SteG concerning the habitual abode: "A stay for the purpose of attending an educational institution and accommodation in an educational, medical or health care institution as well as a spa and vacation stay of up to twelve months shall not constitute a habitual residence or domicile."

Natural persons that neither have their residence nor their habitual abode in Liechtenstein, are subject to limited tax liability with their domestic assets (land and operating facilities) and income according to article 6 SteG.

Legal persons are subject to unlimited tax liability with their entire income as soon as their registered office or the place of actual management is in Liechtenstein.⁴¹ Legal persons that do not have their registered office or place of actual management in Liechtenstein as well as special property donations without a legal personality, are subject to limited tax

³⁶ SteG, art. 47 para. 3.

³⁷ SteG, art. 16 para. 2 lit. b.

³⁸ SteG, art. 6 para. 1.

³⁹ SteG, art. 7 para. 1.

⁴⁰ SteG, art. 2 para. 1 lit. b-c.

⁴¹ SteG, art. 44 para. 1.

liability with their income in Liechtenstein.⁴² The place of actual management is the location of the center of corporate overhead management. The place of residence is the residence determined by law, statutes or memorandum of the association.

Within the framework of the EEA Decision No. 91/2000 to incorporate Directive 2000/31/EC of the European Parliament and of the Council into the EEA Agreement, the so-called "country of origin principle" was introduced in Liechtenstein.⁴³ In this Directive, "establishment" is defined as the place where a service provider starts and pursues his activities. The exact location of the server or of the website is irrelevant. The only thing that matters is the place of the economic activity, the place this activity is actually carried out by means of a fixed establishment and for an indefinite period. This means that in relation to data transactions, the residence or effective place of management of the company is also the place of establishment for the data transfer. Also, the fact that the server is located in another country would not change anything.

Part Two: Application of treaty principles

2.1. General overview

The second part of this report focusses on typical treaty provisions and the taxation of data transactions with regard to these typical provisions. The treaty principles of Liechtenstein are based on the OECD guidelines. Relevant in the context of the taxation of data transaction is article 7 DBA that covers company profits. It states that profits of the company of one country (i.e. Liechtenstein) can only be taxed in this country except if it carries on its business in the other state (i.e. Germany) using a permanent establishment situated in that other state. If the latter conditions are met, the profits of the permanent establishment can be taxed in the other state (Germany). However, the character of these profits has to be defined in advance, which is done in article 7 para. 2 DBA. The profits that are attributable to each permanent establishment of the contracting states are the profits the permanent establishment is likely to make if this permanent establishment were a separate and independent enterprise providing the same activities in the same conditions. In attributing these profits, the functions performed by the permanent establishment and other parts of the enterprise as well as the risks and assets of the enterprise, are to be regarded.

To continue this examination, the term "permanent establishment" has to be defined. According to article 5 paragraph 1 DBA, a permanent establishment is a fixed place of business that is used to carry on the activities of a business wholly or partially. Therefore, a business from the other state that makes profits with data transactions and that has a permanent establishment in Liechtenstein according to the definition of article 5 DBA, is liable to tax in Liechtenstein with the profit that is attributable to that permanent establishment in Liechtenstein. The fact that these profits are made with selling data does not affect this regulation.

However, there is another question that arises in the context of data transactions,

⁴² SteG, art. 44 para. 2.

⁴³ Regierung des Fürstentums Liechtenstein, 2000, Bericht und Antrag der Regierung an den Landtag des Fürstentums Liechtenstein zur Schaffung eines Gesetzes über den elektronischen Geschäftsverkehr: E-Commerce-Gesetz.

data driven business and permanent establishments: Does the server in another country establish an operating facility?

The OECD's Committee on Fiscal Affairs states that the location of computer equipment as for example a server can qualify in certain circumstances as a permanent establishment.⁴⁴ This is the case if the significant functions and business activities are performed at that place. Also, article 5 paragraph 4 DBA has to be checked which defines situations in which an establishment does not qualify as a permanent establishment. Especially lit. d and e could be important in this context. They define that neither a fixed place of business with the sole purpose of purchasing merchandise and goods or obtaining information for the company nor a fixed place of business that has the sole purpose of carrying other, not core activities – preparatory or ancillary activities – for the company, determine a permanent establishment. Therefore, the server really has to be a core business activity to qualify as a permanent establishment which is not the case in standard data transactions. Additionally, it has to be fixed locally and possess a specific degree of independence as a minimum. That is for example not fulfilled with servers that only incorporate data identical to the original data to i.e. shorten data paths. Normally, also the requirement of power of disposition is not given as the data is stored on multiple redundant hard drives in most of the cases.⁴⁵ Therefore, each case has to be evaluated individually based on its context, business activities and circumstances. In some situations the server may qualify as a permanent establishment, but in most cases it does not.

Referring to the ECG of Liechtenstein mentioned above, "establishment" is defined as the place of the service provider, the location of the economic activity. The exact location of the server is irrelevant. This compares to a certain extent with the approach from the OECD. In a first step, the place of the core business activities has to be defined. If the main business then depends on the server and the company has a power of disposition, the server qualifies as permanent establishment.

2.2. Detailed comments

In the Liechtenstein tax law and ordinance, there are no specific remarks, regulations or treaties covering big data, data transactions or information transfers. Also, the Liechtenstein model convention to avoid double taxation does not give any information on how big data and data transactions are to be treated. Even the information on transfer prices and arm's length transactions regulated in article 9 DBA and article 49 SteG do not provide any information on this subject. Interestingly, also the double tax treaty between the Netherlands and Liechtenstein, despite the facts that it is quite new (signed on 3 June 2020) and takes the results of the BEPS project into account, does not provide any information on how data or knowledge transfer is to be treated. As Liechtenstein also does not have specific letters, information and guidelines on this matter as for example the BMF letters in Germany, it is advisable to use the OECD principles in practice. This reveals the regulatory gaps and explains why the general principle "substance over form" is to be used on these matters in Liechtenstein.

⁴⁴ OECD, 2001, OECD Countries Agree on the Interpretation of a Key Condition for Taxing Profits from Foreign E-Commerce Business, accessed November 2020 via <http://www.oecd.org/tax/treaties/oecdcountriesagreeontheinterpretationofakeyconditionfortaxingprofitsfromforeign-e-commercebusiness.htm>.

⁴⁵ Lehmann, Daniel; 2001, E-Commerce: Steuerliche Rahmenbedingungen, eine Standortbestimmung; Steuer Revue, Nr.1/2001.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Transfer pricing rules have to be examined as soon as there are cross-border transactions and transactions between two related parties. Therefore, this also holds for data transactions. Article 31b of the Tax Ordinance (SteV) treats the arm's length principle. According to paragraph 1, taxpayers must always apply the latest version of the OECD Transfer Pricing Guidelines (TPG) for Multinational Enterprises and Tax Administrations when determining the transfer prices of transactions between related parties. This regulation furthermore defines that the effective facts and circumstances of the specific transaction have to be taken into account when choosing the adequate transfer pricing method. Additionally, if taxpayers also qualify as member of a group with a consolidated turnover of more than CHF 900 million, they must meet specific documentation requirements.⁴⁶

As the arm's length principle has to be applied in Liechtenstein, the suitable method for certain data transactions has to be determined. Again, this approach does not differentiate from determining the method for every other transfer of goods or services. If the price paid for a good or a service between two commercial or financial related companies differs from the price two independent companies would have agreed upon, the conditions or the money that was part of that contract but would be normal in every other transaction between two independent companies, has to be added to the profits and taxed accordingly. It does not matter if data is included in the transaction itself or if it is just used to develop and evolve the product that is transferred. The arm's length principle compares a transaction between two related companies to a transaction of the same product or service that would occur in the market between companies that are not financially or commercially related. If the transaction between the related firms shows better conditions, the profits or conditions are adapted for taxing purposes. The difference between the conditions in the firm-related state to the conditions in the non-related state is taxed too.

Furthermore, it can be stated that Liechtenstein does not provide any special regulations concerning the pricing of intangible assets such as data transactions. Also, there is no specific guidance for intra-group service transactions. Liechtenstein follows the OECD TPG here. Intra-group transactions are carried out at arm's-length principle terms and all companies have to be able to provide documentation about the adequacy of the transfer prices of transactions between related companies or PEs. Also, article 31b paragraph 1 SteG provides the legal basis to apply the simplified approach for low value-adding intra-group services, which reduces the documental burden a taxpayer may face as they only have to prove the receipt of a benefit by the group members within the individual service category.

⁴⁶ SteV, art. 31b para. 2.

Part Four: Special regimes

4.1. General overview

After having examined transfer pricing in the context of data transactions, section four provides an overview of special regimes. If data would be regarded to be an intangible asset, it has to have a value. This value has to be determined for each specific dataset. When these data are then sold, the taxation is based on the specific value of the sold data. However, if goods or services that are based on big data are sold, the data used to develop the product was once either bought and thereby taxed within this transaction or it was developed and collected itself and has a value based on used resources and internal costs to obtain these data. This again has to be priced to a certain extent within the sold product to cover the production costs. By selling such products based on data, the value of the data should be somehow included in the selling price at least the costs needed to develop, obtain or process the data.

In certain cases, aggregated and structured data, databases, algorithms or advertising strategies using big data can also be understood as goodwill. Goodwill is only taxed when being sold. So, if these data (products) are sold, they have to be taxed. As long as only the product itself that uses the goodwill is sold, the goodwill does not have to be taxed. To a certain extent it could be compared to brand values. Products form specific brands and can be sold at a higher price because of – among other things – the brand value. Also, products that improve customer satisfaction due to big data or that have better advertising strategies can be sold for higher prices in some cases. However, goodwill itself is only taxed when selling the brand. Therefore, future regulations could arise that define that resources needed for the development and collection of data, data bases or analysis for the development and the sale of big data enabled goods and services, have to be gathered and taxed within the transfer of such goods. In this scenario, it is either taxed because these costs are already included in the selling price – then this has to be made traceable – or separately afterwards.

4.2. DST

There is no DST or similar tax in Liechtenstein.

4.3. Incentives

As an incentive regarding big data development or exploitation, the Blockchain Act or TVTG can be listed. It is not a direct incentive in terms of tax credits or monetary value, but in terms of legacy. In the context of civil law, legal uncertainty for business models using DLT or Blockchain no longer exists. This could encourage big data applications coming with businesses that fall under the Blockchain Act. Also, there are checks that are given to companies to support innovation, and to strengthen the continuous development of digitalization with its products and innovations. However, there are no specific tax credits that could be applicable to typical big data development and exploitation.

Furthermore, in some jurisdictions, a license box or patent box exists, which is no longer present in Liechtenstein. The design of the total revision of the tax law (came into force on 1 January 2011) was carried out in close cooperation with the EU, where the ban

on state aid was being discussed. An exception that was considered as permissible were measures to promote research and development. The special importance of research and development for the future prosperity in Europe was recognized by the European Union years ago. Especially for small, resource-poor countries such as Liechtenstein, the sustainable safeguarding of the future through research and development is vital. An instrument for so-called IP-Box systems is a way of promoting research and development. A similar IP box regime (deduction of intellectual property rights) was also introduced in Liechtenstein on 1 January 2011. Article 55 SteG stipulated that an amount of 80 % of the total positive income from intellectual property rights applies as business justified expenditure. The special deduction of 80 % of the sum of the positive income from intellectual property rights led to a reduction of the assessment basis for this income to 20 %. Therefore, the effective tax rate for income from intellectual property rights was only 2.5 %. However, the IP box regime was abolished with the law of 4 November 2016 amending the Tax law. Nevertheless, the Liechtenstein legislator has granted a transitional period up to and including the tax year 2020 for income from intellectual property rights of legal entities and self-employed persons that were subject to taxation under this provision in the 2016 tax year.⁴⁷

4.4. Barter treatment

Liechtenstein does not have any rules or discussions about barter treatments.

Part Five: Indirect tax

In Liechtenstein, the VAT and the subscription tax could be of interest when talking about indirect tax in the context of big data transactions.

Every person that operates a business and provides services in Liechtenstein or has his registered office, place of management or permanent establishment in Liechtenstein and makes profits of more than CHF 100,000 is liable to VAT (article 10 MWSTG). The legal form, purpose and profit intention of that business is of no relevance in this case. Article 18 paragraph 1 MWSTG then defines that all services rendered against payment are subject to VAT in Liechtenstein unless they are tax exempt. As pointed out in section one, a provision of a service is classified in article 3 lit. e MWSTG as a service that is not a supply. If raw data, a database, an analysis or a product that is based on big data technology are sold, the selling company has to include VAT, because it qualifies as a service against payment. Such as in every other case: The tax is being calculated out of the actual received payment.⁴⁸ Also, the arm's length principle has to be applied.

First, article 19 MWSTG could be of interest in this case. Article 19 paragraph 1 MWSTG states that independent services are treated independently from each other. If the transferred data is independent from other products and services, it has to be taxed individually. This could be even more important when other products are exempt from

⁴⁷ Langer, Matthias; 2020, Liechtensteinisches Steuerrecht, Springer Gabler; SteG, II. Übergangsbestimmungen im Gesetz vom 4 November 2016 über die Abänderung des Steuergesetzes.

⁴⁸ MWSTG, art. 24 para. 1.

VAT, but data transactions are not. However, paragraph 2 states that several independent services that are combined to form a whole or are offered as a combination of services, can be treated uniformly according to the predominant service (should have at least 70% of the overall remuneration) if they are provided at an overall remuneration. This could lead to the possibility that if the transferred data within these total assets are only about 30% of the remuneration value and the predominant product or service is either tax exempt or enjoys the reduced tax rate, the data transaction will also be tax exempt or enjoy a lower tax rate.

Second, subscription taxes exist in Liechtenstein. The subscription tax is regulated in article 45 MWSTG and defines the taxation of services purchased from abroad. Subject to subscription tax are, according to lit. a, services that are provided in Liechtenstein from a company that has its residency in a foreign country and therefore is not entered in the register as a taxable person in Liechtenstein. Even more interesting in the context of data transactions is lit. b which defines that the import of data carriers without market value and the incorporated services and rights are subject to subscription tax too. The receiver of that service or data carrier is subject to tax if he either obtains such services for more than CHF 10,000 in a calendar year or if he is subject to tax according to article 10 MWSTG. Persons that already are liable to domestic tax must include all payments that are subject to subscription tax in their declaration of VAT. The limit of CHF 10,000 does not apply here. However, the subscription tax is deductible in the same statement as input tax given that the conditions are met. This means that if a foreign or domestic company is the receiver of imported data carriers and either receives such services for more than CHF 10,000 a year or has a company or permanent establishment in Liechtenstein that makes profits of more than CHF 100,000 a year, it is liable to subscription tax. This also results in the fact that a foreign company that receives the imported data carriers and that fulfills these conditions has to be registered for the purpose of subscription tax and VAT in Liechtenstein. The service recipient that is not subject to domestic tax must report to the FTA within 60 days of the end of the calendar year in which he received these services subject to subscription tax, and declare these received services.⁴⁹

It should be noted that this is only the case for data carriers without market value that are not already exempt from VAT. Data carriers without market value are defined as any imported data carrier that is not acquired against a specific fixed fee, payment or license fee at the time of import. Examples for this are updates and upgrades, image data, data carriers with computer programs.⁵⁰ Furthermore, scrutinized rights and intangible assets, plans, drawings and illustrations by architects, engineers, graphic designers and designers as well as legal writings by lawyers, expert opinions, translations and results of research and analysis, are defined to be equal to data carriers without market value according to article 111 paragraph 4 lit. a-d.

Subsequently, there is no VAT related to free data transactions as article 18 MWSTG states that only services that are rendered against payment are subject to VAT. A payment is defined as assets that the recipient or a third party spent to receive a service.⁵¹ So as long as there is no payment for the data, there also is no VAT. Liechtenstein does not treat the free use of digital services and the data collection of the provider as a barter transaction as mentioned above, which would lead to VAT. Other indirect taxes that are of interest when

⁴⁹ MWSTG, art. 66 para. 3.

⁵⁰ Mehrwertsteuerverordnung (MVSTV), art. 111.

⁵¹ MWSTG, art. 3 lit. f.

examining data transactions, do not exist in Liechtenstein to this day. Taxes like a GST or a special consumption tax do not exist.

Part Six: Tax accounting

6.1. Recognition of transactions

To examine the recognition of transactions, the law of revenue and recognition with regard to data transactions has to be mentioned. According to article 1079 paragraph 1 PGR expenses are expenses for material, labor, depreciation and value adjustments, other operating expenses as well as depreciation on financial assets and value adjustments held as current assets, interest, extraordinary expenses and other taxes. Concerning income, net sales, own work capitalized, increase in finished goods, other operating income as well as income from investment, securities and financial assets receivables qualify as revenue. Furthermore, interest profit from ordinary and extraordinary activities are defined to be revenue as well.

Most of the expenses would arise in the area of labor when talking about collecting data, developing and maintaining databases and analytic tools. Net sales would increase if a company sold these databases or raw data directly. These expenses and revenues have to be included in the balance sheet and the financial statements leading to the net income that is the starting point for taxational adaptations and corrections before calculating the tax liability.

6.2. Capitalization and amortization

In addition to the recognition of taxation, capitalization and amortization related to data sets and databases are of interest. Article 1052 PGR defines that assets are to be carried at no more than the cost of acquisition or manufacture. The problem already mentioned frequently in the report is again, that data is not a classic asset. In the situation where data would be understood as an intangible asset, it has to be carried on in the balance sheet. Furthermore, article 1053 PGR adds that expenses for the establishment and expansion of business activities as well as development costs can be capitalized. Afterwards they have to be amortized over the period of use.

However, it is uncertain if data itself or datasets and analysis of datasets are assets in the sense of the PGR and therefore have to be carried on in the balance sheet. Expenses for establishing databases and analytic tools, maintaining datasets and for collecting raw data would be considered as development expenses or expenses for the expansion of business operations and would be capitalized and amortized. In contrast, the same approach as in section four could be used to classify data and databases as either goodwill or part of a product and not as individual assets.

To summarize, the question of capitalization and amortization depends on the classification of data: Are data assets? What kind of assets? First, raw data alone that are neither processed nor sold, have no value for a company. They should not be considered as wealth or valuable assets. However aggregated, structured or processed data that are used or sold afterwards have a value and can be understood as wealth for a company. In this

scenario, they could represent intangible assets which then could lead to their activation as well as to the activation of their related costs in the balance sheet. Also, Switzerland, that often serves as orientation for the Liechtenstein regulations, discusses the qualification of data as intangible assets.⁵² There are no clear regulations yet, but as data will become even more valuable for companies the discussions about how to include them in the balance sheet as well as in which cases they should be included, will go on and will introduce new approaches and regulations.

Part Seven: Other

Further issues when speaking about taxing data transactions might be the documentation and traceability of the provided services and generated income, especially in the context of the arm's length principle. How it is possible to determine the character of the data transferred and its market value? Every data, database, algorithm changes in value depending on where and how they are implemented, used and processed. Probably the dataset has a value x for company A but a value y for company B just because they can process and use the data differently. Therefore, it could be very hard to determine a market value for the cases the value depends highly on the contracting parties.

Also, if data transactions should be taxed, there will be huge problems in monitoring that every transaction is reported, documented and can be taxed afterwards. If firms do not collaborate and do not report every data transaction to the tax office, it is almost impossible to trace every single data transaction between firms and to monitor every download. The resources needed to control and supervise such data transactions would be huge, complex and not economical. Furthermore, it would violate many privacy rights, business secrets and customer protection regulations that are in place as introduced in the beginning section on legal background.

⁵² Schwarz, Angelica; 2020, „Die Bilanzierung von Daten bekommt große Relevanz“, Springer Professional.

Summary and conclusions

Thanks to the steady increase of computing hardware capabilities in line with Moore's law, the phenomenon of big data emerged in recent years. The current legislative frameworks can hardly keep up with the pace of technological developments. There is no legal framework for data transactions and the definitions of property and ownership in the Luxembourg civil code date back to the times of Napoleon Bonaparte. In 2013, though, Luxembourg introduced an action for data recovery in insolvency proceedings of cloud providers. In addition, the protection of personal data was improved on 25 May 2018 with the implementation of the General Data Protection Regulation. Data protection officers warn that the collection of big data may violate the principles of transparency, of purpose limitation and of data minimization.

There are no specific tax laws in Luxembourg relating to data transactions. For income tax purposes, the business income and rental income categories are the most relevant. Here, the Luxembourg sourcing rules provide that business income must be earned by non-resident taxpayers through a domestic permanent establishment, which requires a fixed piece of equipment or fixed place of business. However, big data, APIs, databases and websites are not tangible properties that could be linked to a specific geographical point and thus cannot constitute a permanent establishment. The remote delivery of automated digital services from a self-owned Luxembourg server without human involvement could however give rise to a permanent establishment. Still, the profits attributable to such a server-PE should be low in absence of significant people functions. Physical presence remains the major nexus for direct taxes in Luxembourg.

Most of the 83 double taxation treaties applicable in Luxembourg follow the OECD Model Tax Convention. Some 68 treaties are amended by the multilateral instrument. However, there is no specific clause in the tax treaties that deals with the different types of data transactions. Data driven businesses are free to choose the location of their operations. In light of the principal purpose test of the MLI, multinationals are encouraged to produce robust business documentation explaining the role of the subsidiaries involved in data transactions.

In the absence of specific guidance, the three tax treaty provisions that are relevant for data transactions are article 7 on business profits, article 12 on royalties and article 12A regarding technical fees. As regards business profits, the definition of a permanent establishment is paramount and still very much dependent on a given degree of physical presence. In most cross-border transactions involving the collection and access to raw data, the income to be derived from such transaction should qualify as a business income and not

¹ Partner, International Tax Services, EY Luxembourg.

² Director, Tax Dispute Resolution, KPMG Luxembourg.

as a royalty. Only a few tax treaties signed by Luxembourg include a provision applicable to technical services' transactions. This provision should generally not be applicable to raw data transactions, as they are not meant to embed a material added value, but it may cover big data analytics that require specialized knowledge, skill or expertise. It is noteworthy that Luxembourg is not levying any withholding tax on royalty payments.

Luxembourg transfer pricing rules do not provide specific guidance on the treatment of data transactions. In the absence of reliable information on comparable uncontrolled transactions, the transfer pricing method most likely to be used in transactions involving big data is the transactional profit split method, which considers the relative value of the functions performed by the contributors. The significant functions associated to big data would be identified by reference to each activity in the big data life cycle. Raw data itself should have limited value. Like oil, data is raw until its intrinsic value is unlocked in a process where the information is extracted from data. In most cases, data would need to be combined with a platform, people or algorithms to create and amplify value.

Luxembourg is currently not offering any special tax regimes for the development and sale of big data enabled goods or services. Luxembourg has not introduced any digital service tax and has no plans to do so on a unilateral basis. The IP tax regime is focused on patents and copyrighted software and thus not directly applicable to big data transactions. Still, taxpayers are eligible for an 80% tax exemption to the extent that they can establish a direct nexus between the qualifying income, assets and expenditures. For VAT purposes, data transactions are generally classified as a service.

Luxembourg accounting principles do not provide specific provisions in relation to data transactions. When companies own or internally generate data which they can exploit economically, those expenses can most of the time not be capitalized as intangibles but must be deducted the same year. However, the expenses incurred to develop and maintain data-analytics tools could qualify as tangible or intangible assets. Provided that it can be reliably measured, the development costs of a data-analytics tool can be capitalized, to the extent it supports a business. Research costs can however not be capitalized.

Finally, data transactions may constitute a reportable cross-border arrangement under the mandatory disclosure rules of DAC 6, if the transaction involves the transfer of hard-to-value intangibles or an intragroup cross-border transfer of functions, risks or assets.

Introduction: Information technology and legal background

In terms of information technology (IT), *data* can be defined as a set of information formatted in a specific way and suitable for automatic analysis and search.³ Data as such have no meaning, but they can carry information in digital form.

In recent years, the phenomenon of *big data* occurred thanks to computing hardware capabilities that are increasing steadily. Big data are high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing.⁴ Put simply, big data are large sets of data collected from many disparate sources

³ René-Charles Cros / Jean-Claude Gardin / Francis Lévy, *L'automatisation des recherches documentaires: Un modèle général «Le Syntol»*, 2nd edition, 1968, p. 239.

⁴ <https://www.gartner.com/en/information-technology/glossary/big-data> (last visited 29 October 2020).

and applications.⁵ IBM added “veracity” or “value” as a fourth element to address the inherent trustworthiness of big data.⁶ The quality of input data determines the quality of output data.

Like oil, data is raw until its intrinsic value is unlocked in a process where the information is extracted from data. This *data science process* is iterative and involves (i) understanding the business problem, (ii) understanding the collected data, (iii) preparing the data, (iv) developing a model with training data using algorithms, (v) applying the model on a test dataset and evaluate its performance and (vi) deploying and maintaining the model.⁷ On average, 80% of the time is nowadays spent on the data preparation with cleansing, labelling, augmentation, aggregation and identification of the data.⁸

Luxembourg laws, in contrast to IT, do not provide for a clear definition nor legal framework for data as such. There is no general *property right for data* in Luxembourg. Thus, general legal principles must be applied to the collection of and transactions in big data. Property and ownership are generally defined in article 544 of the Luxembourg civil code as the right to enjoy and dispose of things in compliance with the law. Data, however, do not fit into this legal definition, as they are not a physical object and – unlike intellectual property (IP) rights – are generally not registered. In practice, however, data are a commodity and are actually driving businesses. It is thus acknowledged that persons can transfer “their” data by granting a right of use to a data controller.⁹ This approach is based on data protection laws and presumes that (natural) persons are acting as data subjects with the right of access and right to erase. The Luxembourg courts seem to prefer another approach: Data ownership shall be allocated to the person who owns the tangible media on which the data are stored.¹⁰ This approach may not be suitable to solve the question of ownership for big data transactions. Big data are often stored on a virtual and shared server (in a cloud hosted by a service provider) and no longer on an own and self-operated bare metal server. Thus, it is often impossible to determine the data ownership from the tangible property of the data storage medium.

In 2013, Luxembourg introduced an *action for data recovery in insolvency proceedings* with article 567 of the Luxembourg commercial code. This action aims at protecting customers when a cloud provider becomes insolvent. Non-fungible intangible property (e.g. data) in the possession of the insolvent person or held by the insolvent person may be claimed back by the owner or by the person who entrusted it to the insolvent person (e.g. another IT service provider). The data must therefore be separable from all other non-fungible intangible property. The costs for this data separation shall be borne by the claimant. If the cloud provider resold the data before the insolvency proceedings, the data owner may claim the price which the buyer has not yet paid. However, this action for data recovery is not granting a general data property right.

⁵ Lionel Spet, *Fintechs, Assurtechs et Regtechs en droit luxembourgeois*, 2018, p. 116, n° 363.

⁶ IBM Institute for Business Value, *Analytics: The real-world use of big data*, 2012.

⁷ Pete Chapman / Julian Clinton / Randy Kerber / Thomas Khabaza / Thomas Reinartz / Colin Shearer / Rüdiger Wirth, *CRISP-DM 1.0 Step-by-step data mining guide*, 1999.

⁸ Cognilytica, *Data Preparation & Labeling for AI*, 2020.

⁹ Jean-Louis Schiltz / Max Spielmann, *Mondialisation et internet*, in: *Annales du droit luxembourgeois*, 2016, p. 136.

¹⁰ Cour d'appel de Luxembourg, 15 May 2018 (<https://justice.public.lu/fr/actualites/2018/05/arret-luxleaks-deltour.html>, last visited 3 December 2020); Jean-Luc Putz, *Cybercriminalité: Criminalité informatique en droit luxembourgeois*, 2019, page 93: « Malgré ses faiblesses, l'assimilation entre propriété du support et propriété de la donnée semble être la meilleure voie à suivre. »

Still, legal protection as an exclusive and absolute right may be granted to some data under the conditions of the Luxembourg IP laws. The expression of a *computer program*, for instance, enjoys copyright protection, provided that it is original in the sense that it is the author's own intellectual creation.¹¹ For that purpose, the Luxembourg courts require a minimum of inventive and creative activity and usually refer to expert witnesses to assess the originality. A computer program is a set of instructions expressed in verbal, coded, schematic or other form which, when incorporated in a machine-readable medium, can cause a particular function, task or result to be performed or achieved by a computer.¹² A set of computer programs can be referred to as *software*.¹³ The copyright protects the software code and the user interfaces as literary work. However, big data are not inventions nor expressions of an original creation. They exist separately from the works of authorship. As such, big data are not a protected category of computer programs.

While the ideas and principles which underlie computer programs are not protected under copyright law, they could be protected as industrial property rights upon registration as a *patent*. In addition, legal protection may be obtained by virtue of registered *designs* for software components (like the user interface), registered *trademarks* (e.g. for the logo) or *domain names*. The Benelux Office for Intellectual Property also offers the possibility to store software source codes in an *i-DEPOT* to legally prove the date of creation.

Next to this, Luxembourg's IP laws foresee a copyright for the protection of *databases*.¹⁴ Generally, both the content of the database and the computer programs used to create, operate or build the database are excluded from this copyright protection.¹⁵ Only the investments made for "obtaining, verification or presentation of the contents" of a database are protected by this *sui generis* right, provided that they are substantial in quantitative or qualitative terms.¹⁶

The law of *trade secrets*¹⁷ protects valuable know-how and business information, that is undisclosed and intended to remain confidential. The techniques used to extract value from big data may qualify as a trade secret. In that case, a judicial review in court of big data collections and transactions may become impossible. A consumer may, for example, be legally prohibited to challenge an algorithm scoring process that determines his creditworthiness, if that algorithm qualifies as a trade secret.¹⁸

Unlike the exclusive and absolute legal positions provided by general property law, by IP laws or by the trade secrets law, *contracts and arrangements* confer relative rights (i.e., between the parties and not *erga omnes*).¹⁹ Confidentiality agreements, for example, are

¹¹ Tribunal d'arrondissement de Luxembourg, 17 December 2013, n° 126.260 and 142.042.

¹² Tribunal d'arrondissement de Luxembourg, 13 July 2007, n° 109031.

¹³ Cour d'appel de Luxembourg, 27 February 2019, n° 42121 (though, cancelled for procedural reasons by Cour de Cassation, 23 April 2020, n° CAS-2019-00073).

¹⁴ Loi du 18 avril 2001 sur les droits d'auteur, les droits voisins et bases de données, transposing into Luxembourg law the Directive 96/9/EC of 11 March 1996 on the legal protection of databases.

¹⁵ Tribunal d'arrondissement de Luxembourg, 21 October 2005, n° 96982.

¹⁶ Court of Justice of the European Union, 9 November 2004, C-46/02.

¹⁷ Loi du 26 juin 2019 sur la protection des savoir-faire et des informations commerciales non divulgués (secrets d'affaires) contre l'obtention, l'utilisation et la divulgation illicites, transposing into Luxembourg law the EU Directive 2016/943 of 8 June 2016.

¹⁸ German Bundesgerichtshof, 28 January 2014, VI ZR 156/13. A constitutional appeal is still pending before the German Bundesverfassungsgericht, 1 BvR 756/14.

¹⁹ Héloïse Bock/Élodie Le Gargasson, Contrats informatiques : de quelques clauses essentielles, in: Droit bancaire et financière au Luxembourg, Volume I, 2014, p. 585.

essential to protect trade secrets of data driven businesses. Control over specific data may also be exercised through contracts which forbid access to data or which restrict the transfer of data.

Finally, data privacy is a major concern nowadays. Since the *protection of personal data* is a fundamental right, a coherent framework was established across the European Union by virtue of the General Data Protection Regulation 2016/679 (GDPR). There are concerns that the collection of big data violates the GDPR principles of transparency, of purpose limitation and of data minimization.²⁰ The scope of the GDPR remains limited though, as it applies solely to the “protection of natural persons with regard to the processing of personal data”. The GDPR does not protect legal persons and does not protect the processing of non-personal data (e.g. machine and sensor data).

Part One: Basic principles: Character, source and nexus

Basic tax principles will be addressed in this part with a focus on the data transactions as described and illustrated in the case studies of the general report.

1.1. General overview

There are no specific tax laws in Luxembourg relating to data transactions. Luxembourg has a classical system with direct taxes on income and capital and with indirect taxes, such as VAT.

Income tax is assessed on the worldwide income derived by resident individuals or corporate taxpayers. Under domestic law, double taxation of foreign income is generally relieved through the credit method. Luxembourg tax treaties avoid double taxation generally through the exemption method.

Business tax applies on a territorial basis. It is levied on the net income derived from commercial activities by single entrepreneurs, partnerships or corporations, with a fixed place of business in Luxembourg.

Luxembourg corporations are also subject to wealth tax. This tax on capital is assessed on 1 January each year on the unitary value which equals, broadly speaking, the net asset value.

1.2. Character

Income is classified in Luxembourg into eight different categories. Business income and rental income are the most relevant for data transactions.

The broad category of business income comprises profits derived from a commercial, industrial, mining or artisanal activity. Business income that is received as a consideration for the use of, or the right to use, patents (including IP which is functionally equivalent to patents) and copyrighted software may benefit from an 80% income and business

²⁰ Lionel Spet, *Fintechs, Assurtechs et Regtechs en droit luxembourgeois*, 2018, p. 24, n° 48.

tax exemption. Capital gains realized on the sale of these IP assets also benefit from the exemption as well as embedded royalties. Indemnities obtained in the frame of legal or arbitration proceedings related to the IP assets also benefit from the tax exemption. In addition, a full wealth tax exemption is granted for these eligible assets. The former IP regime was repealed in 2016, but with a grandfathering period until 30 June 2021. It had a broader scope, since it also applied to trademarks, designs, domain names, and models. In addition, this former “back-end” regime did not require any nexus between the income receiving benefits and the expenditures contributing to that income.

Rental income includes royalty payments that are received as a consideration for the use of, or the right to use, any copyrights, patents, trademarks, designs or models, plans, secret formula or processes or any other similar rights, and for the use of, or the right to use, industrial, commercial, or scientific equipment, or for information concerning industrial, commercial or scientific experience (know-how).

For most resident corporations, the domestic distinction between business or rental income is practically irrelevant, since all income generated by their activities is by law considered to be commercial profit. A characterization is, however, relevant for non-resident taxpayers to determine their Luxembourg source income derived from data transactions.

1.3. Source

Luxembourg taxes its corporate and individual residents on their worldwide income and capital. Non-residents are taxed on their Luxembourg source income and capital.

Rental income of non-resident taxpayers without any permanent establishment or permanent representative will be subject to Luxembourg income tax, if the immovable property is situated in Luxembourg. While royalty payments are included in the domestic definition of rental income, royalties received by a non-resident taxpayer from a Luxembourg debtor are not included in the catalogue of Luxembourg source rental income. Luxembourg is also not levying any withholding tax on royalty payments. And income derived from data transactions should not be regarded as Luxembourg source income only because of the registration of IP rights in a Luxembourg register.

For business income, the sourcing rules provide that commercial profits must be earned by non-resident taxpayers through a permanent establishment in Luxembourg or by a permanent representative in Luxembourg. These concepts have a broader scope than the international standards embodied in article 5 of the OECD Model Tax Convention. A permanent establishment requires a fixed piece of equipment or fixed place which serves for the operation of a business. A permanent representative – without a fixed base or particular business premises in Luxembourg – is generally a dependent agent, excluding wholesale dealers, commission agents and independent sales representatives.

In the case study of data brokers, the application programming interface (API) and the database of Broker Co as well as the website owned by Website Co should not give rise to a permanent establishment or permanent representative in Luxembourg. APIs, databases and websites are not tangible properties that could be linked to a specific geographical point and thus cannot constitute a permanent establishment.²¹ Even if the data relate to Luxembourg resident customers, this should not establish a Luxembourg source of any

²¹ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 123.

income received by a non-resident Broker Co in consideration for data sets with profiles of customer behavior. A .lu-domain of the website should also be irrelevant, since the representative appointed by the .lu domain name holder no longer needs to be based in Luxembourg.

Provided that, in the case study of performance data analytics, the software of Service Co is hosted on a virtual and shared server of a third-party cloud provider in Luxembourg, this server should generally not be at the disposal of Service Co and should therefore not be a permanent establishment of Service Co. If, however, a physical server is exclusively dedicated to Service Co for more than six months, then this server could constitute a permanent establishment for Service Co. In case that Service Co operates and owns the Luxembourg server, this place constitutes a permanent establishment only if the core functions are carried on through this internet server. It is not required that these functions are carried out by personnel of Service Co at the server location. The remote delivery of automated repair and diagnostics services by the non-resident Service Co from a Luxembourg server without human involvement could therefore constitute a Luxembourg permanent establishment. In contrast, the collection and transmission of data are, in general, preparatory and auxiliary activities and should not give rise to a permanent establishment at the location of the server.²² In fact, the protocol to the 2006 Luxembourg tax treaty with San Marino states that a permanent establishment could include a server. Still, the profits attributable to such a server-PE should be very little to none, given the absence of any significant people functions at the server location.²³

In the case study of performance data analytics, sensors are installed on consumer appliances, but remain the property of Service Co. This physical equipment could create a permanent establishment of Service Co. in Luxembourg, since the sensors constitute a fixed piece of equipment which serves to operate the business of Service Co.²⁴

1.4. Nexus

Physical presence is the major nexus for direct taxes in Luxembourg.

Corporations are tax resident and thus subject to income, business and wealth tax, if their registered office or place of effective management is located in Luxembourg. Non-resident corporations with a domestic permanent establishment or permanent representative are subject to income, business and wealth tax on the attributable income and capital.

There are no special nexus rules (like significant digital presence) for data transactions. In the case study of data feeds with a remote sales model, a non-resident Animal Data Co without any physical presence in Luxembourg should therefore not have any tax nexus in Luxembourg. Thus, there should be no right to tax in Luxembourg the monthly fee received by Animal Data Co.

In the case study of performance data analytics, the data centers which host the

²² Jean Schaffner, *How Fixed is a Permanent Establishment?*, 2013, p. 103.

²³ OECD, *Report on the attribution of profits to permanent establishments*, 2010, p. 26, para. 66.

²⁴ Since the domestic definition of permanent establishment is nearly identical to the definition in German tax laws, reference can be made to the German case-law of Bundesfinanzhof, 16 December 2009, I R 56/08, BStBl. II 2010, p. 492 concerning a noise measurement system that automatically transmitted data to an airport operator.

software necessary to provide the remote services may be owned by a Luxembourg subsidiary company of the non-resident Service Co. Both are independent and separate legal entities and, as a general rule, the subsidiary company does not constitute a permanent establishment of its parent company.²⁵ If, however, the subsidiary's activities are limited to passively and exclusively making its servers available to the parent company, the server could possibly constitute a Luxembourg permanent establishment of Service Co.²⁶

Part Two: Application of treaty principles

2.1. General overview

The 83 tax treaties that were concluded by Luxembourg and are currently in force prevail over domestic law. Thus, in case of conflict, the tax treaty provisions will apply.²⁷ Most treaties follow the OECD Model Tax Convention. A limited number of treaties contain provisions of the UN Model Tax Convention between Developed and Developing Countries.

Luxembourg ratified the multilateral convention to implement tax treaty related measures to prevent BEPS (MLI). It became effective on 1 January 2019 for withholding tax purposes and on 1 January 2020 for the purpose of other taxes. Currently, 68 covered tax agreements are listed by both Luxembourg and the treaty partner, whereof 39 are already affected by the MLI provisions chosen by these countries.

Luxembourg courts confirmed that domestic law shall not influence the qualification of income under tax treaties.²⁸ Even if an item of income may be characterized under domestic law as commercial profits, it may still be re-qualified as a different type of income under a tax treaty provision. In practice, the Luxembourg tax administration and the courts refer to the commentaries provided by the OECD or UN.

In the context of digitalized businesses, taxpayers are free to choose without significant legal, financial or physical constraints, the location of data storage, related functions and value drivers. They are free to choose jurisdictions where neither the consumer nor the parent company reside. However, to access the treaty benefits, taxpayers will need to be able to demonstrate that the operations' set-up is not principally tax-driven. The principal purpose test (PPT), introduced by the MLI, is aimed at denying tax treaty benefits for arrangements where one of the principal purposes is to obtain such treaty benefits.

Currently, there is no clear guidance available on how Luxembourg will review the compliance with the PPT rule for taxpayers claiming the benefits provided by a specific tax treaty. In practice, robust documentation on the business purpose of the transactions helps demonstrate that the treaty entitlement and access to tax treaty benefits should be preserved.

²⁵ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 115.

²⁶ Reimar Pinkernell, in: Mössner, *Steuerrecht international tätiger Unternehmen*, 2018, p. 328, para. 3.19.

²⁷ Marc Schmitz / Philip Warner, *Luxembourg in International Tax*, 2015, p. 343.

²⁸ Cour administrative, 8 February 2018, n° 39274C.

2.2. Detailed comments

There is no specific clause in the Luxembourg tax treaties that deals with the different types of data transactions, which may range from raw and aggregated data transactions to big data analytics.

In the absence of specific guidance, three treaty provisions of the OECD Model Tax Convention shall be analyzed in more detail: article 7 on business profits, article 12 on royalties and article 12A regarding technical fees. Article 13 on capital gains may apply less frequently.

2.2.1. *Business profits*

The taxation of business profits in tax treaties signed by Luxembourg is mostly based on article 7 of the OECD Model Tax Convention. In principle, the exclusive taxing right is granted to the residence state with regard to business profits derived by a resident enterprise, unless such enterprise carries on business in the other country through a permanent establishment.

The definition of a PE is still very much dependent on a given degree of physical presence, either through a fixed place of business or the actual physical presence of a person for the service furniture. It is noteworthy that the broader PE definition of the 2017 UN Model Tax Convention is included in 24 Luxembourg treaties. It encompasses, under further conditions, “furnishing of services, including consultancy services, by an enterprise through employees or other personnel engaged by the enterprise for such purpose.”

In 58 Luxembourg tax treaties there is no specific definition of “business activity”. In these cases, Luxembourg will apply the domestic PE definition. A taxpayer will be considered to have a PE in the other country, if the activity exercised in that other country constitutes an independent activity and represents a participation in the general economic life in that other country. These two conditions are relevant for Luxembourg taxpayers, in particular when the nature of the activities carried out in the treaty country does neither require an extensive infrastructure, nor a significant and constant mobilization of human resources.²⁹ In this regard, and considering the case law,³⁰ the general economic life participation is given when the exchange of assets and services is done in a way that it is visible to an interested public; it is ready to enter into commercial relations with an undetermined number of persons, taking into account the extent and the kind of the enterprise and the own capacity of delivery; it supplies the market with goods for which there is a need and by exchanging them against equivalents in kind or in cash. No difference should be made in this regard whether intragroup or unrelated transactions are performed.

The above is relevant for Luxembourg taxpayers that claim the recognition of a PE in another country, especially when such country has concluded a tax treaty with Luxembourg. Now, when it comes to assess the existence of a PE in Luxembourg for a foreign taxpayer, it shall be determined whether the specific facts and circumstances meet the criteria set out in the domestic law:

- 1) Fixed piece of equipment or fixed place which serves for the operation of a business.³¹

²⁹ Parliamentary document n° 7318/06, p. 54.

³⁰ Conseil d'Etat, 3 February 1965, n°5655; Cour administrative, 18 January 2018, n°40092C.

³¹ § 16 (1) of the Luxembourg Tax Adaptation Law (Steueranpassungsgesetz).

- 2) Examples of PE include: i) the place where the management takes decisions; ii) branches, factories, warehouses, places of purchase and sale, landing areas (entry points for shipping businesses), offices and other places of business, which the entrepreneur or his permanent representative (for example someone with a power of attorney) uses to carry out the business; building or construction sites when their duration exceeds or is expected to exceed six months.
- 3) Specific cases include: i) railway business; ii) mining operations; and iii) enterprises supplying gas, water, electricity or heat.

The potential exposure for a non-resident taxpayer is directly related to its physical presence in Luxembourg, the exercise of a business activity and the generation of revenue from such activity. This narrows the chances of Luxembourg to exercise its taxing rights in relation to the digital operations of foreign companies, and in particular for those entities dealing with big data transactions, where there may be little to no interaction in Luxembourg when consumers and other participants are residents or present in other jurisdictions.

In case of a non-resident company that sets up a data center in Luxembourg, it is clear that there is a physical presence in the country, due to the necessity to keep computing and networking equipment to carry out these operations in Luxembourg. The services provided may include the collection, storage, process, distribution or giving access to large amounts of data to clients that may be resident in other jurisdictions.

As noted above under section 1.3, a distinction must be made between the computer equipment (e.g., a server or a sensor) and data or software (e.g. a website or API) used or stored in the computer equipment, to assess if a PE could arise. Such distinction should be performed in particular to identify the following:

- *The physical location.* The server is a tangible asset, while the data or website being hosted does not in itself constitute a place of business.³² In addition, the server must be fixed in the sense that it needs to be located at a certain place during a certain period of time.³³
- *The disposal of the physical location.* Hosting agreements with an internet service provider, for instance, typically do not result in the server and its location being at the disposal of the enterprise carrying on its business through the website hosted therein. Hence, the non-resident client does not have a place of business in the country where the server is located.³⁴
- *The business wholly or partly carried on through the server.* It shall be examined if the core functions of the enterprise are performed through the server.³⁵ Preparatory or auxiliary activities are not giving rise to a permanent establishment,³⁶ except when they are an essential and a significant part of the core functions of the whole enterprise.³⁷

Taking the above into consideration, it is possible to conclude that a non-resident client could face a PE exposure in Luxembourg, but only to the extent that the tax authorities can demonstrate (i) its disposal and control over the servers owned by the data center, and that (ii) such disposal and control is necessary to engage into commercial transactions for

³² OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 123.

³³ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 125.

³⁴ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 124.

³⁵ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 126.

³⁶ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 128.

³⁷ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 5, para. 129.

the provision of goods or services and (iii) that this activity is performed in a recurrent way in Luxembourg. The activities carried out through the server in Luxembourg should be essential and significant for the non-resident's business operations.

2.2.2. *Royalties*

Luxembourg tax treaties mostly follow the definition of royalties contained in the OECD Model Tax Convention. The definition covers payments of any kind received in consideration for: a) the use of or right to use copyrights,³⁸ as well as industrial property;³⁹ and b) for information concerning industrial, commercial or scientific experience (i.e., know-how usually not protected by copyrights). Some tax treaties do also cover the use of, or the right to use, industrial, commercial or scientific equipment, which was deleted in the 1992 OECD Model Tax Convention but kept in the UN Model Tax Convention.

Luxembourg courts⁴⁰ and the tax administration refer to the OECD Commentaries made in relation to article 12, in particular when they assess the application of the former IP regime which continues to apply until 30 June 2021. To this end, the OECD Commentaries highlight the following:

- A distinction needs to be made between a license or the right to use and a sale or the transfer of the full ownership of an asset. In general, if a payment is made in consideration for the alienation of distinct and specific property rights, such payments are likely to be regarded as business profits as per article 7 or as capital gains as per article 13 of the OECD Model Tax Convention, rather than royalties.⁴¹
- Know-how generally corresponds to undivulged information of industrial, commercial or scientific nature arising from previous experience. Thus, payments for new information obtained in the course of the services provided at the request of the payer, do not fall within the scope of article 12.⁴² Since know-how also refers to scientific experiences, which is non-secret information, the knowledge so transferred does not have to be secret but it must at least not be notorious.
- The decisive differences between know-how and the provision of services are a) to supply know-how, special knowledge or experience that already exists or has been developed at a specific request, and is generally supplied under confidentiality agreements without the supplier incurring significant expenses; b) the service provider has no obligation to supply the special knowledge or skill to the other party and it usually incurs in substantial expenditure to perform the service.⁴³
- In the case of mixed contracts covering both know-how and the provision of services, the consideration should be identified, split and each income stream should be taxed accordingly. The tax treaty regime applicable to the principal part can be extended to the entire consideration where the residual part clearly is of ancillary nature.⁴⁴

³⁸ Any copyright of literary, artistic or scientific work including cinematograph films.

³⁹ Any patent, trademark, design or model, plan, secret formula or process.

⁴⁰ Cour administrative, 26 April 2019, n° 42723C; Tribunal administratif, 15 March 2018, n° 40909; Cour administrative, 20 January 2017, n° 38990C.

⁴¹ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 12, para. 8.2.

⁴² OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 12, para. 11.

⁴³ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 12, paras. 11.3 to 11.5.

⁴⁴ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 12, paras. 11.3 to 11.6.

- Payments made in consideration for software to be made in exchange for the copyright in a program or in exchange for a software which is incorporating a copy of the copyrighted program.⁴⁵ Generally, article 12 of the OECD Model Tax Convention covers income paid in consideration for partial rights in the copyright allowing the use and exploitation of the program in a manner that would otherwise constitute an infringement of the copyright; whereas, article 7 typically covers payments made in consideration for site licenses and the supply of information about the ideas and principles underlying the program, such as logic, algorithms or programming languages or techniques.⁴⁶

Likewise, article 7 or 13 of the OECD Model Tax Convention cover payments for the acquisition of the full ownership of the rights in the copyright.⁴⁷ It is therefore crucial to identify the person which is exploiting the right to use the software.

Luxembourg tax treaties generally limit the taxation rights on royalties in the source country. Under domestic law, royalties are taxed only when they are derived by resident taxpayers regardless where they are sourced. Luxembourg source royalties are not subject to withholding tax. Luxembourg would tax non-residents only when royalties are attributable to a local permanent establishment. That situation is analyzed in the business profits' section.

In the context of raw data transactions, the right to access such data should not qualify as an exploitation of IP rights (i.e., no royalty flow should exist). This conclusion arises because under domestic law, the data would not qualify as "property". It would not qualify as transfer of know-how either, as long as the data does not entail undivulged commercial information. Consequently, in a cross-border transaction involving the collection and access to raw data, the income to be derived from such transaction should qualify as business income and not as a royalty.

A different situation arises when an enterprise has designed a database to capture and analyze data, and further utilizes this database solution to provide services under a commercial contract. To the extent the services provided involve a transfer of knowledge and not merely the application of specialized skills or expertise requested by an external client or a group company, the remuneration for such service would qualify as a royalty. This is especially true when the client thereafter makes use of that knowledge and exploits it in its business transactions.

The distinction between know-how and the application of expertise becomes relevant for those tax treaties concluded by Luxembourg which contain a specific provision for technical services. In the next section, we will further explore the differences that may arise with regard to the limitation of taxation rights in the source country. For domestic tax purposes, whether technical fees or royalties are received is less relevant because the payment should either way qualify as a commercial profit and Luxembourg would be able to tax it only to the extent that a non-resident company derives such income through a place of business in Luxembourg.

Another example are payment platforms in the banking sector which have been developed and customized for high performance and usability. Typically, these platforms connect banks, payment systems and people, to ensure a quick reliable and cost-effective transfer of money. The payment for these types of digital services should not qualify as

⁴⁵ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 12, para. 13.

⁴⁶ *Task Technology*, *supra* n. 32, at Recital No. 35.

⁴⁷ OECD, Model Tax Convention on Income and on Capital, 2019, Commentary on art. 12, paras. 14 and 15.

royalties in a tax treaty context but should rather fall under the category of business profits, since there is no actual transfer of copyrights for the program running such platforms.

Another interesting development is the new draft article 12B of the UN Model Tax Convention aimed to tax income from automated digital services. This article would provide a response on how to determine taxing rights on digital transactions. The draft defines this type of income as any payment made in consideration for services provided on the internet or an electronic network which requires minimal human involvement from the service provider. In these circumstances the country of residence of the payor will have limited taxation rights.

As a last example, we refer to the leasing payments performed in the context of digital transactions. These transactions may be identified as cloud computing arrangements whereby the lessee does not currently have possession of the underlying software used in the arrangement. Rather, the lessee obtains access and can use a specific software “as-needed” (e.g., through the internet, or via a dedicated line). Examples of cloud computing arrangements include software as a service, platform as a service, infrastructure as a service and other hosting arrangements. Considering that the lessee is merely granted access to a “space” in the cloud allotted to him pursuant to the terms and conditions of an arrangement (in a manner comparable to a site license), the tax treatment of the fees paid in consideration for the use of the cloud space should follow that of a payment for the right to use physical space. Hence, depending on the tax treaty, article 7 on business profits or article 12 on royalties could apply to determine the taxation right limitations applicable to the profits of the company selling cloud-space access.

2.2.3. *Technical fees*

Only a few tax treaties signed by Luxembourg⁴⁸ include a provision applicable to technical services’ transactions. In those tax treaties, technical services are either covered in a separate clause following article 12A of the 2017 UN Model Tax Convention or as part of the definition of royalties in article 12. For instance, in some tax treaties concluded by Luxembourg there is either a specific clause for this category of income⁴⁹ or technical services are included in the definition of royalties.⁵⁰

The aim of this provision is to cover payments made in consideration for any service of managerial, technical or consultancy nature. It leads to the limitation of the taxation right in the source state without the requirement to meet any threshold. However, none of the tax treaties concluded by Luxembourg includes a definition of “technical services”.

In this regard, the UN Commentaries to article 12A clarify that an important feature to identify whether technical services are provided, is the application of specialized knowledge, skill or expertise. Thus, it does not include services of a routine nature that do not include the application of specialized knowledge, skill or expertise.⁵¹ It further recognizes that there is no precise meaning of “technical”, “management” or “consultancy”. Given that those terms

⁴⁸ Four tax treaties include a specific clause dealing with fees for technical services (of a managerial, technical or consultancy nature) and seven treaties include technical services as part of the definition of royalties.

⁴⁹ For example, the treaties concluded with Botswana, Brunei Darussalam, Malaysia and Trinidad and Tobago.

⁵⁰ For example, the treaties concluded with Bulgaria, India, Indonesia, Morocco, Portugal, Spain and Seychelles.

⁵¹ UN Comm. art.12A paras. 62, 90 and 91.

should not be interpreted under the domestic laws of the countries applying the tax treaty,⁵² it would be helpful if both countries would draft commentaries to clarify how to interpret these terms in the specific tax treaty.

For tax treaty purposes, the difference of characterization between royalties and technical services is that in the latter case the source country has taxing rights even if the taxpayer has no permanent establishment. Sometimes, the analysis is straightforward because the taxation rights are limited the same way in the royalties' and technical services' articles or the revenue stemming from the provision of technical services is covered by the definition of royalties. In those cases, it is irrelevant if the payment is classified as a royalty or a technical service. However, the distinction in characterization becomes rather important when fees are paid for technical services or for other services because the allocation of the taxing rights differs if the income is not attributable to a PE of the service provider in the residence state of the payer of the fees.⁵³

In the context of digital transactions, we hold the opinion that this provision should generally not be applicable to raw data transactions, as they are not meant to embed a material added value.

To the contrary, transactions involving data analytics tools deserve more attention. In this context the provision of services could involve the application of specialized knowledge, skill or expertise.

Let us focus on the example, where an enterprise collects data from sensors on machinery or equipment which are used to develop performance analytics. That information can be used to enhance the after-sales services for this specific machinery or equipment. The remuneration for the after-sales service could qualify as a technical service given that highly specialized knowledge is applied and could be taxable under specific tax treaties in the source country even if the non-resident company does not have a PE. This should however not be the case in Luxembourg because Luxembourg does not apply a withholding tax on these kind of payments under domestic law.

A similar situation could be encountered when an enterprise develops a data analytics tool with raw data gathered from different sources, which it uses to create personalized content or predictions. The remuneration for the access to such content could qualify as a technical service payment in a tax treaty context and could become taxable in the source country even though the taxpayer does not have a PE in that country. Therefore, in those cases contractual arrangements, facts and tax treaty provisions should be analyzed with caution to conclude if treaty partners of Luxembourg could apply withholding tax at source.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Luxembourg transfer pricing rules do not provide specific guidance on the treatment of data transactions. In principle, the transfer pricing considerations would depend on the

⁵² UN Comm. art.12A para. 68.

⁵³ Monique Malan, New Article 12A of the UN Model Regarding Fees for Technical Services: Ahead of Its Time or a Step Too Far?, Bulletin for International Taxation, February 2019.

accounting and tax treatment of the data transactions. To that end it needs to be assessed whether the accurately delineated data transactions would be regarded as a sale of goods, a provision of services or a granting of licenses regarding such data. The conclusion can be influenced by (i) the role of data in the business model of the company, as well as by (ii) the manner in which the data drives value in the business.

The accurate delineation of data transactions may prove challenging in the case of highly digitalized businesses, where big data creates value in better business models, product and service development, improved decision-making and greater adaptability to market conditions. In such cases, it may be argued that the transfer pricing analysis should account for the costs incurred in order to generate, collect, store and exploit the data (i.e., process in a complex and valuable manner). In certain cases, reference can be drawn from prices charged by companies engaged in the business of collecting and selling data (e.g., external comparables for corroboration purposes).

Consequently, the overall remuneration to be charged for the provision of goods or services where the value or efficiency has been enhanced by the enterprises use of big data, would need to embed the respective costs.

The transfer pricing analysis would capture the means of attributing value to the generation, collection, storage and usage of data. Depending on the business model (including value of data to the business objectives), an assessment of the costs incurred throughout the data life cycle may provide a useful starting point for the analysis of the combined profits of the intra-group activities. This would include the allocation of an appropriate return for the funding of the acquisition of raw data, as well as for its storage and exploitation.

In addition, key functions associated to the big data value chain may be undertaken in various entities, even if the collection or exploitation is undertaken within a single entity. In such a case, the overall profit (or loss) attributable to the activity would need to be computed and appropriately allocated between the contributing entities based on sound transfer pricing principles. In the absence of reliable information on comparable uncontrolled transactions, the transfer pricing method most likely to be used in transactions involving big data is the transactional profit split method, which considers the relative value of the functions performed by the contributors. While such contributions would be assessed when big data transactions are entered into, the actual profit (or loss) may differ from the one anticipated, depending on how the risks materialize. In line with international transfer pricing guidance (as indicated below), the accurate delineation of the transactions would also determine the entity which bears the consequences when the risks materialize differently than anticipated.

To that end, the OECD Transfer Pricing Guidelines for Multinational Enterprises (July 2017) Chapters I, II, VI and VII, as well as the Report on attribution of profits to permanent establishments (2010) would be applied.

The significant functions associated to big data would be identified by reference to each activity of the respective phase of the big data life cycle, inter alia the generation, collection, storage and usage of data. It may be argued in certain instances that raw data itself has limited value, as only when data is processed it provides commercial advantages. In most cases, data would need to be combined with a platform, people (to analyze and decide) or algorithms to create and amplify value. This entails that big data transactions would cover mainly significant functions related to:

- Definition of objectives for conducting data analytics (generation of data)
- Development and/or maintenance of platforms, algorithms and other IP for data analytics (collection and storage of data)

- Data quality review (collection, storage and usage of data)
- Legal protection including e.g., EU GDPR, data localization laws etc. (collection and storage of data)
- Management of complex data analysis to decide usefulness and processing needs (usage of data)
- Conversion of data analytics insights to actionable plans which drive business value (usage of data)
- Development of products/services/projects/technology/processes through the use of big data ahead of competition that adapt to market trends, are innovative or enhance the existing value proposition (usage of data).

Part Four: Special regimes

4.1. General overview

Luxembourg, for the time being, is not offering any special regimes for the development and sale of big data enabled goods or services.

4.2 Digital Services Tax

Luxembourg has not introduced any digital service tax (DST), but expressed concerns with respect to the DST as proposed by the European Commission in 2018. A concern is that the DST is a revenue tax, so that the tax must be paid even if the company is loss-making. The DST would not be creditable against corporate income tax in the home country of the company, as normally only profit taxes can be taken into account as foreign tax credit. In this respect the possibility to deduct the DST as an expense should only partially address the risk of double taxation.

4.3. Incentives

The IP regime described in section 1.2 is focused on patents and copyrighted software. It was designed in line with the “modified nexus approach”: economic activity and value creation are measured by the expenditures which taxpayers incur for the creation, development or improvement of IP. Taxpayers are thus eligible for the 80% tax exemption only if they can establish a direct nexus between the qualifying income, assets and expenditures.

IP assets are eligible for the tax exemption, insofar as they have been created, developed or improved after 31 December 2007 through research and development (R&D) activities. The IP income benefiting from a tax exemption is calculated based on a ratio taking into account the R&D costs incurred by the taxpayer which can be summarized as follows:

$$\text{(Qualifying R\&D expenditures / Overall R\&D expenditures)} \times \text{Qualifying net IP income.}$$

Qualifying R&D expenditures are those which are directly connected to the eligible IP assets and which are required for actual R&D activities. This does not include the acquisition costs, interest and other financing or building costs. The Overall R&D expenditures include all qualifying R&D expenditures, increased by acquisition costs for the eligible IP asset and

the expenditures related to the R&D outsourced to related parties. Qualifying net IP income includes the business income as described above in section 1.2.

As from 1 January 2021, Luxembourg introduces a profit-participating scheme and an impatriate regime to retain and attract highly skilled workers. IT specialists are key value drivers for data-driven businesses.

Amounts paid under the profit-participating regime will be fully deductible for the Luxembourg resident employer for corporate income tax purposes, while only 50% of the gross amount will constitute taxable income for the employee. The employer has reporting obligations towards the wage tax office which will verify if all conditions of the profit-participating scheme are met. For the employer, the total amount that can be paid to beneficiaries is limited to 5% of the annual profit for the financial year preceding the year of payment. For the employees, the payment shall not exceed 25% of their ordinary annual gross remuneration.

To attract foreign big data and IT specialists, the costs of moving to and living in Luxembourg that are paid by the employer may be exempt from Luxembourg income tax at the level of the impatriate for a period of up to eight years.

Moving costs and school fees, for instance, are considered fully tax exempt in the hands of the impatriate, if paid by the employer.

Other qualifying salary components, like housing costs, annual return trip and tax equalization, can be considered tax exempt up to the lower of EUR 50,000 per year (EUR 80,000 for a couple) or 30% of the employee's annual base salary (which should be at least EUR 100,000). Finally, a lump-sum impatriation premium may be paid by the employer to an impatriate on account of the difference in the cost of living between Luxembourg and the state of origin. This premium cannot exceed 30% of the employee's annual base salary. It benefits from a 50% income tax exemption at the level of the impatriate.

A certain number of conditions need to be fulfilled both at the employee and employer level for this regime to be applicable. In contrast to the former tax circular from 2014, companies will no longer need to have at least 20 employees on the local payroll to apply the impatriate regime.

4.4. Barter treatment

In some EU member states (excluding Luxembourg), it has been discussed that a user's enjoyment of free digital services in cases where the provider is able to collect user data constitutes a barter transaction. This could lead to a turnover similar to an exchange and could thus be recognized for VAT purposes. However, the value of the right to use the data should be determined by the user's subjective perception. From this perspective, this value should be "zero", since the user also has the possibility to use (paid) services that protect his identity.⁵⁴ In sum, no VAT should be due.

⁵⁴ Schmalenbach-Gesellschaft "Transfer Pricing" Working Group, Data and Information as Taxable Assets, European Taxation, 2020, p. 495, point 3.3.

Part Five: Indirect tax

For VAT purposes, data transactions are generally classified as a service. In line with its policy to transpose EU directives to the minimum required (“toute la directive, rien que la directive”), Luxembourg adheres to the VAT principles as described in the EU report.

Part Six: Tax accounting

Where costs are incurred by local or foreign companies during the performance of one or multiple activities (capture, cleaning, combination, curation, analysis and decision making) of the big data life cycle, those transactions will be recognized for Luxembourg accounting purposes. The key question that will be analyzed in this section is which big data transaction is taking place in Luxembourg and over which period the revenue and expenses will be recognized.

Luxembourg GAAP⁵⁵ does not provide specific legal or regulatory provisions in relation to the accounting of the collection, manipulation and licensing of data. However, the general provisions on the preparation of annual accounts,⁵⁶ specify that the annual accounts shall give a true and fair view of the assets, liabilities, financial position and results of an undertaking.

Further, the Accounting Law⁵⁷ states that whether assets are to be shown as fixed or current assets shall depend upon the purpose for which they are intended. Fixed assets shall comprise those assets which are intended for use on a continuing basis for the purposes of the undertaking’s activity.

Finally, the Accounting Law⁵⁸ mentions the valuation rules to be used for the items shown in the annual accounts. Even though intangible assets shall be written down over their useful economic life, in exceptional cases where the useful economic life of goodwill or development costs cannot be reliably estimated, such assets shall be written off within a period which shall not exceed ten years.⁵⁹

In the absence of clear guidance about the accounting treatment of a specific transaction under Luxembourg GAAP it is an accepted market practice in Luxembourg to refer notably to the International Financial Reporting Standards (“IFRS”) or to any other national GAAP, provided these international or national standards are compatible with Luxembourg GAAP. In particular, the International Accounting Standards (“IAS”) 38 covering intangible assets may be relevant for big data transactions.

Based on these general principles, we will focus on the accounting treatment of the

⁵⁵ Luxembourg rules and regulations in respect of statutory accounts of a commercial company, are stated in the law of 19 December 2002 on the Register of Commerce and Companies and the accounting and annual accounts of undertakings (the “Accounting Law”) as amended. The legal provisions relevant to the statutory accounts are based on the Directive 2013/34/EU of the European Parliament and of the Council (“EU Directive”). In the absence of a specific description of an accounting treatment in the 2002 Law, reference should be made to the general accounting principles (“GAAP”) applicable in Luxembourg.

⁵⁶ Art. 26 (3) of the Accounting Law.

⁵⁷ Art. 39 of the Accounting Law.

⁵⁸ Art. 51 to 64 of the Accounting Law.

⁵⁹ Art. 59 (2) of the Accounting Law.

expenses incurred in the framework of the collection and maintenance of data sets and development and maintenance of databases or data analytics.

6.1. Recognition of transactions

When companies own or internally generate public data or content which they can exploit economically, those expenses can most of the time not be capitalized as “intangibles”. The main reason is that the expenses incurred for data set collection (be it raw or arranged) cannot be distinguished from the cost of business development, even though other parties could be interested in buying such data sets. Based on that premise, one would rather classify the data collection and maintenance costs as “inventory” if part of the cost will subsequently lead to a sale or service transaction. That would be the case if customers would be interested in buying data sets that have been captured and cleansed by the company in view of sale. The accounting of “inventories” is further addressed in the next section.

Regarding the expenses incurred to develop and maintain databases, Luxembourg companies have the option to apply the prudence principle and to expense the database development and maintenance costs during the year they are incurred. Alternatively, the development costs could be capitalized and depreciated over its useful lifetime.

The accounting of revenue from data products or data licensing will depend on the terms and conditions of the customer arrangements signed with the “data partners” to access, search and analyze historical and real-time data on public data and content platforms. Such revenue will either be recognized as a one-time payment on the day of the single performance obligation, or over time (e.g. monthly payments) if the performance obligation is recurring over a longer period. If the single performance is satisfied over time, the data licensing revenue is recognized on a straight timeline basis over the period in which the company provides the data because the customer consumes the data on an ongoing basis. The same treatment should be applicable to the customer (costs recognition deferred straight-line over the duration of the data availability). Where two performance obligations exist, the license provider typically allocates revenue on a relative basis between the performance obligations (based on the stand-alone selling price and recognized revenue as the performance obligations are satisfied).

Finally, the expenses incurred to develop and maintain data-analytics tools or tools to transform the data in information available for customers use, could qualify as tangible or intangible assets. The conclusion will depend on the nature of the tools. The development of the tool can qualify as development costs if reliably measured to be capitalized, as it supports a business. Research costs can however not be capitalized.

6.2. Capitalization and amortization

As outlined before, acquired data sets can be capitalized when they meet the definition of an intangible asset. Under IAS 38 it is possible to capitalize expenses incurred for the development of intangibles, provided that they can be clearly distinguished from research costs. Research costs can no more be capitalized and amortized in Luxembourg. In case of doubt how to classify the expenses, IAS 38.54 foresees that the expenses shall be classified as research costs and reduce the result during the year of occurrence.

The capitalization of intangibles is of particular relevance for companies that plan

to repatriate assets or cash to their shareholder. It may indeed reduce their repatriation options given that the Accounting Law⁶⁰ prohibits companies to distribute profits in case development costs have not yet been fully amortized (unless the result carry-forward and available reserves exceed the amount of the capitalized development expenses that have not yet been amortized). Still, the excessive reserves and results could be distributed in that case.

The (cloud) arrangements that may be signed amongst trade partners should also deserve attention to identify if one is in the presence of an intangible or instead of software as a service. The situation in which this could be relevant is where data partners enter into data license agreements with providers that would cover multiple years. As long as data partners cannot update the data or reconfigure it and given that other data partners will have access to the same data set, it cannot be concluded that the data partner controls the data and thus it cannot be capitalized on its balance sheet. In that case, the data partner would record an expense in its profit and loss account in exchange for the service provision. Even in situations leading to the conclusion that the data partner does control the data, one could argue that the data set payment shall be accounted as part of the inventory where it is embedded in a service provided in the ordinary course of activity of the data partner to be expensed over the life cycle of the data.

Part Seven: Other

Data transactions may constitute a reportable cross-border arrangement under the mandatory disclosure rules of the EU Directive on administrative cooperation in the field of taxation (DAC 6). In practice, data transactions concern more than one EU member state or an EU member state and a third country. This cross-border arrangement may be reportable under certain conditions if the data transaction involves the transfer of hard-to-value intangibles between associated enterprises or an intragroup cross-border transfer of functions and/or risks and/or assets.

⁶⁰ Art. 59 (3) of the Accounting Law.

Summary and conclusions

Character, Source & Nexus – Recipient's perspective

The tax laws of Malaysia do not have any specific provisions pertaining to the taxation of data transactions.

The general principles of tax are to be applied to establish whether any receipt or transaction is of an income or capital character, the type of income, the tax rate and mechanism for payment of tax. For completeness, Malaysia has an income tax but no capital gains tax.

The character of a transaction plays an important role in determining the source of income. Each source has its own derivation scope, i.e. nexus rule, hence the character of a transaction often influences the taxability of that transaction, especially in cross-border cases.

Data driven transactions may involve a one-time non-exclusive transfer of data/information or a continuous non-exclusive transfer of data/information via a subscription model. These may be associated with the character of a license of intangible property.

Other types of data driven transactions may involve the transfer of data/information which involves alienation of the transferor's ownership of such data/information (i.e. transfer on an exclusive basis). Such transactions may be viewed as a sale of intangible property. On the other hand, a commitment to collect, aggregate and/or analyse a certain amount of data over a period of time may be regarded as either a service or a sale of intangible property, depending upon the terms of the transaction.

In some service organisations, data may be heavily used by the service providers. In such cases a distinction must be made between the provision of data and the provision of a service whereby the provider merely uses the data in the course of providing the service. The character of a data-driven service should not be any different from a conventional service, merely due to the involvement or use of data in the performance of the data-driven service.

As for the source, Malaysia has specific provisions to deal with Special Classes of Income, which include technical and other services provided by non-residents. The royalty source in the domestic tax law also has a wider scope than that of the OECD recommendation as it includes payments for the use of software and payments for the alienation of certain intangible property. Incidentally, the scope of terms such as 'copyright' in the DTA is interpreted widely by including software-related payments.

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² Partner of TraTax, an independent tax advisory firm that is the sole member firm of WTS Global in Malaysia.

Malaysian law provides for taxation on a 'derived or remittance' basis, but a 'territorial scope' is practised due to a wide exemption for foreign source income. The application of the territorial scope is subject to deeming provisions that dictate the nexus for certain income to be deemed to be derived from Malaysia. These are summarised in Table 1 (see section 1.4).

The link between character, source and nexus is vital, and is summarised in Table 2 (see section 1.5). It is interesting to see how subtle differences may render certain transactions as taxable or non-taxable, particularly in cross-border situations.

Character – Payer's perspective

The perspective of the person who earns the income is not necessarily important for the payer. The key concern for the payer is to establish whether the payment is a revenue expense (which is normally a tax-deductible expense) or a capital expenditure – for which the key criterion is whether or not the payment leads to creation of an enduring benefit.

Where the payment is taken as a capital expenditure, the character of the payment is examined to establish whether the payment constitutes expenditure on 'plant', which is a vital qualification to claim tax depreciation known as capital allowance on such costs. This was tested in a landmark decision of the Malaysian Court of Appeal in the case of *CIMB Bank Berhad* that affirmed that "plant" could also include intangible assets like databases.

However, the tax statute was amended effective 1 January 2021 to curtail the scope of 'plant' by excluding intangible assets – this was done to reverse the effect of the *CIMB* case prospectively.

Transfer Pricing

The local tax rules and guidelines are broadly consistent with that of the OECD; hence it is expected that future OECD developments would also be generally (albeit not invariably or completely) adopted by Malaysia.

The authors are of the view that, in principle, the value of data does not solely rest in the jurisdiction from which the raw data is collected. Say, a multinational enterprise collects data and sells the data, including data from the Malaysian market via its Malaysian subsidiary (say, Company A) globally. The aggregation and analysis of the data is done in another jurisdiction by another entity (say, Company B). Say, Company B is responsible for the Development, Enhancement, Maintenance and Protection (i.e. four out of the five DEMPE criteria) hence is the owner of the intangible property, the question arises as to what should be the arm's length compensation by Company B to Company A in respect of the provision / right to use the raw data provided and collected. This question should be addressed in conjunction with the question whether such provision should be evaluated on a separate basis, or on an aggregated or bundled basis with other transactions (such as the provision of platform/software or provision of analysed information by Company B to Company A).

Digital Tax (SToDS)

As part of the indirect tax regime, Malaysia introduced a digital service tax regime which is formally referred to as the Service Tax on Digital Services ("SToDS"). Foreign businesses that provide digital services to Malaysian customers exceeding MYR 500,000 per annum are required to register for SToDS in Malaysia and collect a 6% tax from its Malaysian customers.

Digital service is statutorily defined as a service that:

- (i) is to be delivered through an information technology medium or any other electronic network;
- (ii) cannot be delivered without the use of Internet technology; and
- (iii) the delivery to the consumer is essentially automated.

In practical terms, the third criterion is interpreted to mean service delivery with minimal or no human intervention from the service provider.

Data-driven transactions that do not satisfy the definition of digital services above, may fall within the scope of other taxable services within the service tax regime, which in inbound cross-border scenarios require the Malaysian business customer to self-account for the 6% service tax under a reverse charge mechanism albeit without any input tax credit.

Introduction: Legal background

Introduction

As outlined in the general report, the legal background on property law, copyright and so on does, at least to a certain extent, have implications on the tax treatment of various data-related transactions.

In addition, taking into account the current operations of the tax enforcement agencies, including their data gathering efforts, we have outlined the provisions of the Personal Data Protection Act 2010, in the following subsection.

Privacy and personal data protection considerations

Data-driven businesses value the data they safeguard or process the most. Where there's a request from tax enforcement agencies pertaining to the personal data of the data subjects that they handle, the requirements of the PDPA must be observed and evaluated before any decision is made to share the relevant information.

The PDPA covers seven (7) principles and crucially contains the following sections which limit the use of personal data in tax situations. The principles are namely:

- (i) the General Principle;
- (ii) the Notice and Choice Principle;
- (iii) the Disclosure Principle;
- (iv) the Security Principle;
- (v) the Retention Principle;
- (vi) the Data Integrity Principle; and
- (vii) the Access Principle.

Section 8 of the PDPA provides that personal data is prohibited from disclosure. The provision is as follows:

Subject to section 39, no personal data shall, without the consent of the data subject, be disclosed—

- (a). for any purpose other than—
 - (i) the purpose for which the personal data was to be disclosed at the time of collection of the personal data; or
 - (ii) a purpose directly related to the purpose referred to in subparagraph (i); or
- (b) to any party other than a third party of the class of third parties as specified in paragraph 7(1)(e).

There are only very limited exceptions as to when personal data may be disclosed and these are provided in sections 39 and 45 of the PDPA:

Notwithstanding section 8, personal data of a data subject may be disclosed by a data user for any purpose other than the purpose for which the personal data was to be disclosed at the time of its collection or any other purpose directly related to that purpose, only under the following circumstances:

- (a) the data subject has given his consent to the disclosure;
- (b) the disclosure:
 - (i) is necessary for the purpose of preventing or detecting a crime, or for the purpose of investigations; or
 - (ii) was required or authorized by or under any law or by the order of a court;
- (c) data user acted in the reasonable belief that he had in law the right to disclose the personal data to the other person;
- (d) the data user acted in the reasonable belief that he would have had the consent of the data subject if the data subject had known of the disclosing of the personal data and the circumstances of such disclosure; or
- (e) the disclosure was justified as being in the public interest in circumstances as determined by the Minister.

Section 45(2)(a) of the PDPA further provides that:

Subject to section 46, personal data:

- (a) processed for:
 - (i) the prevention or detection of crime or for the purpose of investigations;
 - (ii) the apprehension or prosecution of offenders; or
 - (iii) the assessment or collection of any tax or duty or any other imposition of a similar nature,

shall be exempted from the General Principle, Notice and Choice Principle, Disclosure Principle and Access Principle and other related provisions of this Act; ...

The foregoing provisions mean that personal data handled by businesses cannot be released to the tax authorities unless it is for the limited purpose of assessing or collecting tax. Fishing expeditions and 'data grabs' by tax authorities are prohibited. This very point is being litigated in court now.

Further, in *Bar Malaysia vs Ketua Pengarah Hasil Dalam Negeri* [2018] 5 MLJ 557 (High Court) the

tax authorities demanded blanket access to the clients' accounts of law firms. it was held by the High Court, upholding legal professional privilege that:

1. privilege is absolute unless it is waived by the privilege holder or falls within the proviso to Section 126 of the Evidence Act and it therefore affords protection to clients and not to lawyers;
2. it is not open for the Revenue to have any access to the clients' account with a view to checking whether the law firms have understated their income without having any reasonable suspicion of any misconduct or criminal conduct on the part of the law firms;
3. the Revenue cannot be allowed to use the ITA as an instrument of fraud purportedly to fish for information on the clients of the law firms;
4. Section 142(5)(b) of the ITA does not oust the common law on Privilege.
5. Section 142(5)(b) of the ITA, at most, only has the effect of removing privilege in respect of any book, account, statement or other record prepared or kept by "practitioners" such as tax accountants and tax agents with a view to taxing their clients and it does not extend to "advocates and solicitors"; and
6. Malaysian law generally, and as referred to in Sections 126, 127, 128 and 129 of the Evidence Act 1950 in particular, requires an Advocate and Solicitor to reject any request or demand of the Revenue for access to, or disclosure of, any, Client Communications, unless Privilege is waived by the Client.

In March 2021, the Court of Appeal has affirmed the High Court's decision above.

Dealing with tax authorities' requests for personal data

Data-driven businesses value the data they safeguard or process the most. Where there's a request from a tax enforcement agency for the personal data of any data subjects that they handle, the requirements of the PDPA must be observed and evaluated before any decision is made to share the information.

The Malaysian tax authorities have taken a patriarchal approach to big data by:

- (i) Seeking to demand unfettered access to big data and personal data (sometimes contrary to considerations of legal professional privilege and privacy restrictions);
- (ii) Seeking to use big data as a tool to audit and investigate; and
- (iii) Seeking to use big data as a taxing tool.

Malaysian taxpayers are challenging the tax authorities and there are a number of pending cases. However, some taxpayers have capitulated and provide data potentially contrary to legal restrictions.

Competition law considerations

Competition law considerations may arise in relation to data that deals with or touches upon pricing, pricing methodology, market definition, commercial markets, sharing of markets, product specifications, future production planning, etc.

These competition law considerations may be mitigated by aggregating data such that they cannot be disaggregated and dealing only with historical data and not current data or future plans of enterprises on the market. Data relating to future production planning and

related data or types of data may be incapable of being dealt with publicly or on a shared basis, even if aggregated.

The characterisation of an enterprise's role in the relevant data ecosystem for tax purposes should not inadvertently create unpleasant consequences under PDPA and competition law, nor vice versa.

Part One: Character, source and nexus

1.1. General overview

The tax laws of Malaysia do not have any specific provisions pertaining to the taxation of data transactions.

The general principles of tax are to be applied to establish whether any receipt or transaction is of an income or capital character, the type of income, the tax rate and mechanism for payment of tax. For completeness, Malaysia has an income tax but no capital gains tax.

1.2. Character

The character of a transaction plays an important role in determining the source of the income. Each source has its own derivation scope, i.e. nexus rule, hence the character of a transaction often influences the taxability of that transaction, especially in cross-border cases.

As for the payer, the character of a transaction may influence the deductibility of the cost or eligibility to tax depreciation.

Possible characterisations in relation to data transactions are outlined below.

1.2.1. Perspective of the person to whom the income accrues

There is no specific rule or guidance in relation to character of a transaction, except that the general anti avoidance rules (GAAR) and transfer pricing rules that may potentially be invoked if the substance of a transaction's character differs from the form.

Data driven transactions may involve a one-time non-exclusive transfer of data/information or continuous non-exclusive transfers of data/information via a subscription model. These may be associated with the character of a license of intangible property.

Other types of data driven transactions may involve transfer of data/information which involves the alienation of the transferor's ownership of such data/information (i.e. transfer on an exclusive basis). Such transactions may be viewed as a sale of intangible property. On the other hand, a commitment to collect, aggregate and/or analyse a certain amount of data over a period of time may be regarded as either a service or as a sale of intangible property, depending upon the terms of the transaction.

In some service organisations, data may be heavily used by the service providers. In such cases a distinction must be made between the provision of data and the provision of a service whereby the provider merely uses the data in the course of providing the service. The

character of a data-driven service should not be any different from a conventional service merely due to the involvement or use of data in the performance of the service.

The associations of character to the type of data transactions above are made for academic purposes at the risk of overgeneralisation. Of course, the actual treatment depends on the terms, facts and circumstances of each case. The comments above are merely a guiding principle to act as a starting point for analysis of the transactions and are not meant to be conclusive.

1.2.2. *Payer's Perspective*

The perspective of the person who earns the income is not necessarily important for the payer. Instead, the payer instead establishes whether the payment is a revenue expense (which is normally a tax-deductible expense) or a capital expenditure – for which the key criterion is whether or not the payment leads to the creation of an enduring benefit.

Where the payment is taken as a capital expenditure, the character of the payment establishes whether the payment constitutes expenditure on ‘plant’, which is a vital qualification to claim tax depreciation known as capital allowances on such costs.

This was tested in a landmark decision of the Court of Appeal in the case of *DGIR vs CIMB Bank Berhad* (2019), which is summarised as follows:

- CIMB Bank acquired, amongst other things, the core deposit and credit card customers’ databases (“Databases”) from another bank.
- Issue: Whether the Databases constituted “plant” and qualified for capital allowances under Schedule 3 of the Malaysian Income Tax Act 1967?
- the Revenue argued that the Databases were not “plant” but were “goodwill” and raised assessments against, and imposed penalties on, CIMB Bank.
- CIMB Bank argued that “plant” could also include “intangible assets” like the Databases so long the Databases were tools used in the Taxpayer’s business.
- The Special Commissioners of Income Tax allowed CIMB Bank’s appeal in full. The High Court and Court of Appeal found for CIMB Bank.
- This was a landmark decision as the Court of Appeal affirmed that “plant” could also include intangible assets like the databases and that capital allowances should be granted so long the conditions for claiming capital allowances under the Income Tax Act 1967 were satisfied. This is the first case in Malaysia in which intangible assets were recognised as “plant”.

The tax statute was subsequently amended effective 1 January 2021 to curtail the scope of ‘plant’ by excluding intangible assets to reverse the effect of the CIMB case above.

1.3. Source

Establishing the source of any income is vital both for computational purposes (such as eligibility to certain deductions and capital allowances / tax depreciation) and for determining the taxability of the income as unique nexus rules apply to the various sources. The determination of source also has an impact upon the mechanism of taxation, especially the application or non-application of withholding tax and the finality of withholding tax.

Malaysia does not have a general capital gains tax, save for a real property gains tax regime. Hence, the scope of direct tax is generally confined to items of 'income', but this is not confined to business income. Other characterisations of income potentially relevant for big data are 'royalty', 'other income' and 'special classes of income'.

1.3.1. Business Source

There is no restrictive definition of business income within the domestic tax law. Local and commonwealth case law would be referred to for this determination.

The leading Malaysian case is that of *American Leaf Blending Co Sdn Bhd vs Director General of Inland Revenue* in 1979, decided by the Privy Council (the then apex court in Malaysia) which established that the classes of income under Malaysian law are not mutually exclusive. Furthermore, any ambiguity is to be read in favour of taxpayers, see *Exxon Chemical (M) Sdn Bhd vs Ketua Pengarah Dalam Negeri* [2006] 1 MLJ 428; [2005] 6 AMR 773; [2005] 4 CLJ 810].

Of course, for international transactions where a Double Tax Agreement ("DTA") is applicable, the opposite is often true as a result of the operation of provisions akin to paragraph 4 of article 7 of the OECD Model Tax Convention. Under Malaysian law, the DTA would override the domestic law in the event of a conflict – see *Euromedical Industries v DGIR*.

1.3.2. Royalty Source

The definition of royalty in the domestic tax law is as follows:

"Royalty" includes any sums paid as consideration for, or derived from—

- (a) the use of, or the right to use in respect of, any copyrights, software, artistic or scientific works, patents, designs or models, plans, secret processes or formulae, trademarks or other like property or rights;
- (b) the use of, or the right to use, tapes for radio or television broadcasting, motion picture films, films or video tapes or other means of reproduction where such films or tapes have been or are to be used or reproduced in Malaysia, or other like property or rights;
- (c) the use of, or the right to use, know-how or information concerning technical, industrial, commercial or scientific knowledge, experience or skill;
- (d) the reception of, or the right to receive, visual images or sounds, or both, transmitted to the public by—
 - (i) satellite; or
 - (ii) cable, fibre optic or similar technology;
- (e) the use of, or the right to use, visual images or sounds, or both, in connection with television broadcasting or radio broadcasting, transmitted by—
 - (i) satellite; or
 - (ii) cable, fibre optic or similar technology;
- (f) the use of, or the right to use, some or all of the part of the radiofrequency spectrum specified in a relevant licence;
- (g) a total or partial forbearance in respect of—

- (i) the use of, or the granting of the right to use, any such property or right as is mentioned in paragraph (a) or (b) or any such knowledge, experience or skill as is mentioned in paragraph (c);
- (ii) the reception of, or the granting of the right to receive, any such visual images or sounds as are mentioned in paragraph (d);
- (iii) the use of, or the granting of the right to use, any such visual images or sounds as are mentioned in paragraph (e); or
- (iv) the use of, or the granting of the right to use, some or all such part of the spectrum specified in a spectrum licence as is mentioned in paragraph (f); or
- (h) the alienation of any property, know-how or information mentioned in paragraph (a), (b) or (c) of this definition.

In the context of big data, the potentially relevant parts of the definition of 'royalty' in the domestic tax law is broadly consistent with the definition in the OECD Model Tax Convention except that:

1. The definition in the domestic tax law expressly covers payments for the use of, or the right to use in respect of, any software.
2. Payments for alienation of certain intangible property are included in the scope of royalty albeit the commercial nature may be a sale of intangible property, which at times may even be a capital transaction.

In data driven cross-border transactions, inevitably much emphasis is placed on para (c) of the royalty definition above that deals with know-how or information (consistent with the OECD definition). The authors are of the view that 'information' should not be taken as synonymous to 'data'. While analysed data is more likely to be regarded as information, that may not be the case with raw data or even aggregated or structured data.

The terms, facts and circumstances of each case will have to be carefully examined to assess whether the thresholds to satisfy the meaning of terms such as 'information', 'know-how' or even 'copyright' are met. This is much easier said than done given the dearth of judicial precedents in Malaysia on these matters in the context of data driven transactions.

Double Tax Agreements (DTAs) entered into by Malaysia generally do not expressly cover software (with the Malaysia-Japan DTA being a notable exception) but in practice the tax authority takes the view the term 'copyright' used in the DTA is to be interpreted in accordance with the domestic law (the Copyright Act 1987) which associates computer programs with copyright. This interpretation is inconsistent with the decision of the courts in the case of *Damco Logistics Malaysia Sdn Bhd vs Ketua Pengarah Hasil Dalam Negeri* (2011), as in that case the tax authority did not bring up the copyright argument or paragraph 2 of article 3 of the OECD Model Tax Convention, which is adopted in most DTAs entered into by Malaysia.

1.3.3. *Source relating to services and other special classes of income*

The scope of special classes of income is confined to income accruing to a person not resident in Malaysia, hence the character is vital only in the context of withholding tax (in other cases, this income may be regarded as part of business income).

The special classes of income consist of, among others, income in respect of advice,

assistance or services rendered in connection with the management or administration of any scientific, industrial or commercial undertaking, venture, project or scheme. Any payment to non-residents in respect of such advice, assistance or service is subject to 10% withholding tax regardless of whether it is technical in nature or otherwise. However, presently there's a Ministerial exemption under the domestic tax law that grants withholding tax exemption on fee in respect of services rendered and performed outside Malaysia.

The special classes of income also include payments for the use of 'movable property', a term which has not been tested in the Malaysian courts on the applicability to intangible property. There's no exemption in the domestic tax law for the use of movable property outside Malaysia.

A considerable number of DTAs in force specifically provides for service fees,³ while many DTAs are silent on service fees and in those latter cases the tax authority seeks to apply the 'other income' article of the DTA (akin to article 21 of the OECD Model Tax Convention)⁴ rather than the 'business profits' article.⁵

1.3.4. *'Other Income' Source*

This is a catch all provision that captures items of income that neither meet the criteria to be regarded as 'business income' nor the criteria for the other classes of income. This catch-all provision covers 'casual' income⁶ (such as commission income) or payment for an isolated transaction.⁷

1.4. **Nexus**

Malaysian law provides for taxation on a 'derived or remittance' basis, but a 'territorial scope' is practised due to the wide exemption for foreign source income.⁸ The application of the territorial scope is subject to deeming provisions that dictate the nexus for certain types of income to be deemed to be derived from Malaysia.

The details of the nexus rules that apply to data transactions are the same as those that apply to any other transaction and is summarised in the table below.

³ Of which many are confined in scope to service fees which are technical, managerial or consultancy in nature.

⁴ Notable exception: Malaysia-Germany DTA which attributes the taxing right to the state of residence.

⁵ There are claims for this position to be supported by the decision of the court in the case of *Alam Maritim*, but there's no consensus on such interpretation of the said case and the authors take the view that this case has been read out of context and is of doubtful authority.

⁶ I.e. a type of 'occasional' income received outside the ordinary course of trade or vocation.

⁷ Isolated transactions are only regarded as 'other income' if they give rise to 'income' to begin with.

⁸ Exceptionally, the banking, insurance, sea and air transport industries are taxed on a worldwide scope of charge.

Table 1: Nexus rules by relevant income sources

	Domestic Transactions (e.g. between residents)	Inbound Charges (i.e. outbound payments)	Outbound Transactions (i.e. inbound payments)
Business Income	Subject to corporate tax in Malaysia unless the income is attributable to operations of the service provider outside Malaysia.	Generally, no nexus to Malaysia to tax, except where the non-resident has a 'place of business' in Malaysia. 'Place of business' refers to physical, project and agency permanent establishment ⁹ , but no express provisions for digital presence for the purposes of corporate tax.	Any income not attributable to operations outside Malaysia is deemed to be derived from Malaysia. ¹⁰
Royalty Income	Not expressly covered in the derivation scope. Generally, royalty transactions between resident entities are taxable.	Deemed to be derived from Malaysia if the responsibility for payment lies with the Malaysian government or any person tax resident in Malaysia, or if the royalty is charged as an expense against any Malaysian income	Not expressly covered in the derivation scope. Determination would depend upon case law and an analysis of the facts.
Other Income	See comments for 'royalty income' above.	Not expressly provided for in the law. The criteria applied in practice is same as 'royalty income' above.	See comments for 'royalty income' above.
Special Classes of Income – Service Fee	Not applicable as this arises only where the income is of a person not resident in Malaysia.	Similar criteria to 'royalty income' above.	Not applicable as this arises only where the income is of a person not resident in Malaysia.

⁹ The place of business provision under the domestic tax law does not expressly include service PE, but many of the DTAs entered into by Malaysia provide for service PEs. In such cases, the provisions of service PE in the DTA are often adopted albeit the gap in the express provisions of the domestic tax law.

¹⁰ In relation to the determination of 'operations outside Malaysia', the principles laid down by the Malaysian courts in two cases shall be referred. In *Kyros International Sdn Bhd v Ketua Pengarah Hasil Dalam Negeri* [2013] 2 MLJ 650 (Court of Appeal, Putrajaya), the Court of Appeal affirmed that the foreign franchise activities took place outside Malaysia and therefore held that the franchise fees received from the foreign franchisees was exempt from tax under the territorial scope. In *Ketua Pengarah Hasil Dalam Negeri v Aneka Jasaramai Ekspres Sdn Bhd* [2007] Court of Appeal, it was affirmed that the sale of bus tickets in Singapore gave rise to income accrued in Singapore and not derived from Malaysia as the sale of tickets took place in Singapore, the contract was entered in Singapore and the money was received in Singapore.

1.5. Link between character, source and nexus

In the preceding subsections, we have outlined the possible character, sources and nexus in relation to data-driven transactions. Given the early stage of these transactions in Malaysia and lack of tax rules, the discussions may not necessarily be exhaustive but we find it important to make an attempt to create a link between these as clearly as possible. Hence, in the table below, at the risk of overgeneralisation, we use five types of data driven transactions and establish the possible links across character, source, nexus and the tax implications.

Table 2: The link between character, source and nexus

Description of transaction type	Possible Character	Possible Source	Nexus (in the context of outbound payment from Malaysia)	Tax implications on inbound charges to Malaysia (i.e. outbound payment from Malaysia)
One-time transfer of data on a non-exclusive basis	License of Intangible Property	If the thresholds to satisfy the meaning of terms such as 'information', 'know-how' or 'copyright' are met, the income may relate to royalty source.	<i>Royalty Income:</i> Payer is tax resident in Malaysia or has a permanent establishment (PE) in Malaysia.	<i>Royalty income:</i> Withholding tax at 10% or any lower rate in the DTA. ¹¹
Continuous transfer of data on a non-exclusive basis (subscription model)	Licence of Intangible Property	Otherwise, the income may be attributable to a business source.	<i>Business Income:</i> Taxable only if the non-resident has a place of business (PoB) or a PE in Malaysia.	<i>Business income:</i> No tax implication ¹² unless the non-resident has a PoB or PE in Malaysia, in which case the corporate tax applies.

¹¹ Except in cases where the royalty is attributable to the payee's PoB or PE in Malaysia, in which the withholding tax does not apply. Instead, the royalty income of a PoB or PE in Malaysia is subject to corporate income tax.

¹² As an alternative interpretation, the Special Classes of Income may be contemplated to apply where royalty definition is not met. In such a case, withholding tax of 10% would apply in respect of advice, assistance or services are rendered in Malaysia even if no PE exist in Malaysia.

Description of transaction type	Possible Character	Possible Source	Nexus (in the context of outbound payment from Malaysia)	Tax implications on inbound charges to Malaysia (i.e. outbound payment from Malaysia)
One-time exclusive transfer of data (transferor does not have ownership or claim after the transaction)	Sale of intangible property	Depending on the facts, it may be business source or a capital gain. For domestic tax law purposes, income from sale of certain intangible property may be regarded as royalty but this is often overridden by DTA definition of royalty.	<i>Capital gain:</i> Not taxable in Malaysia. <i>Business Income:</i> Taxable only if the non-resident has a PE in Malaysia. <i>Royalty (non-DTA cases):</i> Payer is tax resident in Malaysia or has a permanent establishment (PE) in Malaysia.	<i>Capital gain:</i> Not applicable. <i>Business income:</i> No tax implication unless the non-resident has PoB or PE in Malaysia, in which case the corporate tax applies. <i>Royalty:</i> withholding tax at 10%.
Commitment to collect, aggregate and/or analyse a certain amount of data over a period of time (transferor does not have ownership or claim after the transaction)	Sale of intangible property	Business source In limited cases, income from sale of certain intangible property may be regarded as royalty but this is often overridden by DTA definition of royalty.	See <i>Business Income</i> and <i>Royalty</i> above.	See <i>Business Income</i> and <i>Royalty</i> above.
	Service	Special Classes of Income	In short, two key criteria (both of which must be satisfied): Payer – tax resident or Malaysian PE; and The service is not performed or rendered outside Malaysia.	10% withholding tax, except where the DTA expressly provides for reduced tax rate. Note: When the DTA does not have a 'service income' article, the tax authority takes the view withholding tax applies but this is contrary to case law.

Description of transaction type	Possible Character	Possible Source	Nexus (in the context of outbound payment from Malaysia)	Tax implications on inbound charges to Malaysia (i.e. outbound payment from Malaysia)
Data-driven services (e.g. consultancy services)	Service	Special Classes of Income	See above	See above

The comments above are only meant as guiding principles to act as a starting point for the analysis of the transactions and are not meant to be conclusive. The actual treatment depends on the terms, facts and circumstances of each case.

Part Two: Application of treaty principles

Malaysia has over 70 DTAs in force and the provisions of the DTAs vary from one another. Generally, the provisions in the DTAs entered into by Malaysia are broadly consistent with the OECD Model Tax Convention with the following notably common exceptions which are potentially relevant for big data transactions:

- (i) Coverage of payments for services that are technical, managerial or consultancy in nature either under a separate article or as part of the ‘royalty income’ article.
- (ii) Inclusion of payments for the use of industrial, commercial or scientific equipment as part of the definition of royalty.

The key discrepancy in the source classification between the domestic tax law and DTAs have been addressed in the preceding chapter. With regard to the interpretation of the provisions in the DTA, the following key positions and practices of the tax authority in Malaysia and principles of law are noteworthy:

- (i) In relation to royalty income, the term ‘copyright’ used in the DTAs is interpreted in accordance with the domestic law (the Copyright Act 1987) which associates computer programs with copyright (this is not part of the OECD’s published position but a widely known position taken by the tax authority in practice).
- (ii) License fee for rights to distribute software is regarded as royalty (published position to commentary on paragraph 14.2 of the OECD Commentary on article 12).
- (iii) Where the DTA does not expressly provide for service fees (which is part of ‘Special Classes of Income’ under domestic tax law, as described in the preceding section), the

tax authority seeks to apply the 'other income' article of the DTA (akin to article 21 of the OECD Model Tax Convention)¹³ rather than the 'business profits' article.¹⁴

Part Three: Transfer pricing

The local tax rules and guidelines are broadly consistent with that of the OECD; hence it is expected that future OECD developments would also be generally (albeit not invariably or completely) adopted by Malaysia.

The authors are of the view that, in principle, the value of data does not solely rest in the jurisdiction from which the raw data is collected. Say, a multinational enterprise collects data and sells the data, including data from the Malaysian market via its Malaysian subsidiary (say, Company A) globally. The aggregation and analysis of the data is done in another jurisdiction by another entity (say, Company B). Say, Company B is responsible for the Development, Enhancement, Maintenance and Protection (i.e. four out of the five DEMPE criteria) hence is the owner of the intangible property, the question arises as to what should be the arm's length compensation by Company B to Company A in respect of the provision / right to use the raw data provided and collected. This question should be addressed in conjunction with the question whether such provision should be evaluated on a separate basis, or on an aggregated or bundled basis with other transactions (such as the provision of platform/software or provision of analysed information by Company B to Company A).

Part Four: Special Regimes

4.1. Digital Service Tax

As part of its indirect tax regime, Malaysia introduced a digital service tax regime which is formally referred to as Service Tax on Digital Services ("SToDS"). Foreign businesses that provide digital services to Malaysian customers exceeding MYR 500,000 per annum are required to register for SToDS in Malaysia and collect a 6% tax from its Malaysian customers. See Part seven for details.

4.2. Incentives

Malaysia is driving towards industry 4.0, especially the high-productive sectors by adapting towards big-data analytics, and data analytics and simulation software, Industrial Internet

¹³ Notable exception: Malaysia-Germany DTA which attributes the taxing right to the resident state for the 'Other Income' article.

¹⁴ There are some claims for this position to be supported by the decision of court in the case of *Alam Maritim*, but there is no consensus on such interpretation of the said case, which the authors believe has been taken out of context and is of questionable authority. The case of High Court case of *SGS Singapore v DGIR* (2001) also suggests that the approach of the tax authority is incorrect.

of Things (IoT), artificial intelligence, augmented reality and so on. This has further heightened the importance of data-driven strategies for competitive differentiation. This would enable Malaysia to produce products and services using innovative manufacturing capabilities based on technology presently available and to lay the foundation for the future.

In order to attract many entities to be data-based organisations, many of the organisations are required to be equipped with high-technologies. As a way to reduce their burden, the Malaysian government provides tax incentives in the form of pioneer status (“PS”) and investment tax allowance (“ITA”) for eligible organisations. Both PS and ITA are mutually exclusive, as an organisation can only enjoy one of the incentives but not both.

The details of PS and ITA which are enhanced for high-technology sectors are as follows:

Incentive	Details	Tax Relief Period
PS	Tax exemption of 100% of statutory income	five years
ITA	60% of qualifying capital expenditure (QCE) set-off against 100% of statutory income	

Companies investing in the high technology sector may also seek customised or pre-packaged incentives, which generally comprise longer periods of tax incentives bundled with non-tax incentives such as R&D or training grants.

Besides that, organisations involved in the adoption of advanced technology for transformation to industry 4.0 may enjoy Automation Equipment Allowance and Accelerated Capital Allowance (ACA) on the first RM10 million of QCE incurred in the years 2018 to 2020 for the below technology drivers:

- Big data analytics
- Autonomous robots
- Simulation
- Industrial Internet of Things (IoT)
- Cyber security
- Horizontal and vertical system integration
- Cloud computing
- Additive manufacturing
- Augmented reality
- Artificial intelligence

Furthermore, anchor companies may enjoy double deduction of up to RM1 million per year for three consecutive years on qualifying operating expenditure on costs of product development, upgrading capabilities of vendors and skills training of vendors incurred in implementing the Industry4WRD Vendor Development Program. This requires a memorandum of understanding (MoU) to be signed with the Ministry of International Trade and Industries (MITI) and verification of the expenditure by MITI as well.

The government also provides special deductions for organisations adopting to industry 4.0 and Industry4wd, which (the national policy on Industry 4.0) are as follows:

- deduction of up to RM27,000 paid to the Malaysian Productivity Corporation on readiness assessment expenses of I4.0-RA;

- Single deduction for private institutions of higher learning for expenditure incurred on the development of new technology and engineering courses in relation to industry 4.0 verified by the Ministry of Education;
- Single deduction on equipment and machinery contributed to Skills Development Centres, Polytechnics or Vocational Colleges certified by the Ministry of Human Resources or Education;
- Double deduction for companies providing scholarships / bursaries to qualifying Malaysian students to pursue studies at technical and vocational, diploma and degree level in fields of engineering and technology;
- Double deduction on expenses for companies participating in an approved program under the National Dual Training Scheme approved by the Ministry of Human Resources;
- Double deduction on expenditure incurred in conducting internship programs, approved by the Ministry of Human Resources, for undergraduate students in fields of engineering and technology.

4.3. Barter treatment

The law in relation to service tax (which consist of SToDS) provides for barter trade situations but there is no publicly known position taken by the tax authority in relation to the possibility to regard user's enjoyment of 'free' digital services in cases where the provider is able to collect user data. Neither is there a reported case on this area.

Part Five: Indirect tax (In the context of services/data)

5.1. Introduction

The Indirect Tax regime in Malaysia has undergone several changes in recent years, the original Service Tax regime (which was introduced in 1975) and Sales Tax Regime (introduced in 1972) were replaced by the Goods and Services Tax Act 2014. This law in turn was repealed and replaced with a new Service Tax Act 2018 (for political rather than technical reasons), which is often referred to as SST 2.0. The service tax rate is now 6%.

The Service Tax Act introduced in 2018, was then further amended on 1 January 2019 to incorporate a reverse charge mechanism. Hence, imported services would also be taxable under the new service tax regime at 6% to ensure neutral tax treatment for services performed by both foreign and local service providers. However, the service tax on imported service is accounted for by the party receiving the service and paid to the Royal Malaysian Customs Department ("RMCD"). It is similar to the reverse charge mechanism in the GST regime, but without an input tax credit mechanism, making the service tax an unrecoverable cost to the business.

In addition to the above, the Service Tax Act was further amended to allow implementation of Service Tax on Digital Services ("SToDS"), which requires foreign service providers who provide digital services to Malaysian customers to register and charge a 6% SToDS effective 1 January 2020. This requirement applies only if the value of digital services

provided by a foreign service provider to Malaysian exceed RM500,000 in any 12-month period.

An intragroup exemption is available for service providers who provide services solely or mainly within the group. At this juncture, intragroup exemption is applicable to domestic transactions, imported service tax and SToDS, but with varying degrees of permissibility of services provided outside the group.

5.2. Domestic services

A data-driven business must first assess whether the transaction it enters into constitutes the provision of a 'service', a term which is not statutorily defined and generally guided by court decisions in Malaysia with permissible reference to foreign precedents as persuasive authorities.

If something constitutes a 'service', the next step is to assess whether such a service is a taxable service. It is noteworthy that the Service Tax regime in Malaysia is described as a narrow-based taxation as only expressly identified services are taxable (as opposed to a GST/VAT regime pursuant to which all services are taxable except where expressly excluded – see *Sarawak Shell and Sabah Shell v Minister of Finance and Customs* (2001)).

The list of taxable services is rather long, hence only the categories that are more likely to be related to data-driven businesses are listed below:

1. Information Technology ("IT") Service
2. Digital Service
3. Consultancy Service
4. Management Service

5.3. Outbound services (export of services)

There is no universal 'export of services' rules within the service tax regime in Malaysia but most taxable services exclude services '*in connection with land, goods or other matters outside Malaysia*' from the scope of service tax. As it has been only about two-and-a-half years since the (re)implementation of service tax (SST 2.0), it remains to be seen how the phrase 'other matters' would be interpreted in the context of data-driven businesses.

5.4. Service Tax on Digital Services ("SToDS")

As described above, effective January 2020 a 6% SToDS applies on digital services provided by a foreign registered person to Malaysian consumers. In this context, 'consumers' may be individuals or companies.

Digital service is statutorily defined as a service that:

- (i) is to be delivered through an information technology medium or any other electronic network;
- (ii) cannot be delivered without the use of Internet technology; and
- (iii) the delivery to the consumer is essentially automated.

In practical terms, the third criterion is interpreted to mean service delivery with minimal or no human intervention from the service provider.

Digital services are deemed as provided to a Malaysian consumer if at least two (2) of the following three (3) criteria are met:

- (a) the consumer makes payment for the digital services using a credit or debit facility provided by any financial institution or company in Malaysia;
- (b) the consumer acquires digital services using an internet protocol address registered in Malaysia or an international mobile phone country code assigned to Malaysia; and
- (c) the consumer resides in Malaysia.

In this context, the consumer may very well be an individual (i.e. B2C transactions) or a company (i.e. B2B transactions).

5.5. Imported service tax

Imported service tax is a reverse charge mechanism that requires businesses (including those that are not service tax registered) to self-account for the 6% service tax on services acquired from a foreign person. This requirement applies on acquisition of all taxable services, not just digital services. Hence some data-driven services that are not captured as part of the SToDS may be covered under the imported service tax regime. Examples of taxable services are referred to in subsection 5.2 above.

Summary and conclusions

Data has been said to be the “New Oil”. This is the way in which data is being treated around the world. The present report will assess the legal basis on which data is treated as well as its treatment. It suffices to say that data in Mauritius has not reached the level which has been reached in other countries but the amount of work that has been put in Mauritius is certainly of interest. This report will look at data and its processing, as well as the other elements of data protection and privacy, and will conclude that the treaty-based assessment on the processing of data will have to be mirrored in relation to how the law will see the processing of data. The various algorithms and the intellectual property will guide the manner in which taxation will apply. Where the traditional aspects of property will apply, there shall be taxation.

To start with, ownership of data related to specific individuals has been subject to serious debate. In the past few years, the extent of data processing as well as the extent of data collection has increased considerably. At present, the manner in which data has been transferred is also essential. Further, data exchange at the level of European laws (GDPR) and the Privacy Shield at the level of EU and US for the purposes of CRS and FATCA has also been deemed to be an essential component that determines the level of exchange of information. However, what this report is not about, is the interaction and exchange of data at that level.

The report will consider the following principles:

1. It will consider the laws associated with the ownership of data and the manner in which it is exchanged in Mauritius. Initially, it will look at the legal perspective of data. Data belongs to the data subject; only the right to process it can be obtained by the data subject. It will argue that the property rights and commercial laws in Mauritius will be followed in relation to the Mauritian Civil code and the Mauritian Commercial code. Further, in relation to the various methods of provision of digital services, the extent of value creation and the source and nexus have to be established. In Mauritius, it will be argued that the nexus and source will be determined by the manner in which the Income-tax act determines the source of the services.
2. The various methods of provision of digital services are nascent in Mauritius and therefore, the government is first trying to develop the industry by giving incentives. Initially, the government did not even have legislative frameworks for many of the

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projects and decided to come up with regulatory sandbox licences. After legislative frameworks have been put into place for the purposes of regulating the business, the government has introduced the regulation for Fintech. The Mauritian parliament has recently passed the Virtual Asset And Initial Token Offering Services Act 2021 which is meant to regulate the various methods of regulating this industry and definition of the Virtual assets and how can they be regulated

3. The property laws, the confidentiality and other laws related to trade secrets will be essential in determining the value addition for taxation. The other question is whether the data gathered from API and other analytics software would be taxable in the source country or the country where the digital company is headquartered. However, there are interesting features in the Mauritian Data Protection laws which make Mauritius a jurisdiction safeguarding the data rights of data subjects and control the manner in which the data is sourced, processed, subjected to automated processing and transferred outside Mauritius. The mass transfer of data is surely subjected to a Data Privacy Impact Assessment and therefore requires the consent of the Data Protection Office before its transfer outside Mauritius. As a result, for a proper application of the laws, especially if the data being analysed or collected arise from Mauritius, there needs to be a trail.
4. The context of data exchange or raw data sales ought to be considered in line with the Data Protection Act in relation to the collection of data for the purposes of direct marketing. Data can be collected for the purposes of direct marketing in line with the Data Protection Act. On 4 September 2020, Mauritius agreed to sign the Protocol amending the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal data. The convention is important in various respects, namely, the right not to be subject to a decision which affects the data subject, which is based solely on automated processing, without the data subject having his/her views taken into consideration. Therefore, ownership remains, together with the human rights considerations of privacy, with the data subject.
5. It will also be argued that the use of the Data Protection Act as a basis for the starting point for the taxation of personal data will be suitable to establish the right of the individuals to their personal data. The value attached to the processing of said personal data, insofar as it concerns the person, would be ascertainable in relation to the property rights and the patents that may be attached to it.
6. The position of Mauritius is unique in its approach. First, it has been involved in the inclusive framework and therefore, has shown a commitment to the application of BEPS in Mauritius. Second, it has been a jurisdiction of rather simple taxes and has chosen, as per its taxation model, to keep taxes simple. This ambivalence is what makes it unique. In relation to Pillar Two, keeping a minimum tax might be the approach taken ultimately. In relation to the taxation, in that case, it is argued that the Mauritian authorities would rather favour the return of the tax base to the country where a value was created rather than engaging into the debate on source and nexus.

It will be concluded that the data protection laws in Mauritius are good indicators of the PE regime and of how the Mauritian laws in relation to the Data Protection Act will apply on data collection, processing and other operations, done with the data. Mauritian property laws will still apply.

Introduction: Legal background

a. Introduction

Big data! Its use and analysis of the data for onward usage, constitute the very backbone of the taxation of the digital economy. Data can be collected directly or through API and the use of algorithms to segregate data. The property laws in Mauritius are embodied in the Civil Code as well as in the Code De Commerce.

b. General property laws

Property law in Mauritius is governed by the Code Napoleon (Code Civil Mauricien). Debate exists whether there are proprietary rights in data. The question that arises is what the status is of the data proprietary rights in Mauritius. If the Mauritian laws are taken at their maximum, there are no property rights in data. Each person (data subject) owns data related to himself. This has been reflected in the various data conventions and the GDPR, which, even if not directly applicable in Mauritius, set the tone to the fact that data belongs to data subjects, and the processing of such data ought to be done with the consent of the person. If consent is not available, the law provides for various other means by which the data is protected. There are no additional safeguards in relation to the property right to data in the said code. However, the Copyrights Act as well as the Patent, Industrial Designs and Trademark Act 2002 embody the rights to data and their characterisation.

Property laws are as follows:

Article 1102 of the Civil Code is read as follows:

“Le contrat est synallagmatique ou bilatéral lorsque les contractants s’obligent réciproquement les uns envers les autres.”

Article 1108 of the Civil Code sets out the following conditions which should be fulfilled for a contract to be valid:

- a. *le consentement de la partie qui s’oblige;*
- b. *sa capacité de contracter;*
- c. *un objet certain qui forme la matière de l’engagement;*
- d. *une cause licite dans l’obligation.*

Parties are free to regulate the use of data provided under contract per the terms of the contract.

The terms of the contract should be within the laws of our jurisdiction. In other words, the *objet* and *cause* should be legal. Otherwise, the contract shall be null and void.

Article 1131 of the Civil Code:

L’obligation sans cause, ou sur une fausse cause, ou sur une cause illicite, ne peut avoir aucun effet.

(an obligation without a cause, or without a valid cause or an illicit cause cannot have any legal effect)

Article 1128 of the Civil Code:

Il n’y a que les choses qui sont dans le commerce qui puissent être l’objet des conventions.
(there can only be things which can form part of a commercial transaction that may be made part of a convention)

Contract law creates rights and obligations between the contracting parties and named beneficiaries, i.e., these agreements bind the other contracting parties but do not convey actual property rights. Similarly, there is the notion of property laws in Mauritius of bare property and usufruct.

With the advent of the newly passed Virtual Asset and Initial Token Offering Act 2021, which was recently assented to by the President but which has not yet been proclaimed as at the date of the present article, Virtual Assets as a class can be traded as a class. A

“virtual asset” means:

- (a) a digital representation of value that may be digitally traded or transferred, and may be used for payment or investment purposes; but
- (b) does not include a digital representation of currencies, securities and other financial assets that fall under the purview of the Securities Act;

Similarly a “transfer of virtual asset” means any transaction carried out on behalf of another person that moves a virtual asset from one virtual asset address or account to another.

c. Copyright Act

Copyright is the second branch of intellectual property rights. Copyright covers literary works (such as novels, poems and plays), films, music, artistic works (for example drawings, paintings,...).

In general, some salient points about the copyright laws in Mauritius relate to the fact that it does not protect ideas, it protects the expression of an idea. Copyright, in general, has a restricted lifespan and it goes to the author of the work. Copyright can be transferred/assigned/licensed by a will.

The first legislation which regulated copyright laws in Mauritius was the *Copyright Act 1997*. However, this Act was later repealed and was replaced by the *Copyright Act of 2014*. The Copyright Act of 2014 was drafted in conformity with the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement and it came into force on 31 July 2014.

S2 of the Copyright Act 2014 defines the term copyright “as the economic and moral rights subsisting in a work.”

- I. The term economic is defined by S6 of the Copyrights Act 2014:
 - (1) Every author or other owner of copyright shall have the exclusive right to carry out or to authorise —
 - (a) the reproduction of the work;
 - (b) the translation of a work;
 - (c) the adaptation, arrangement or other transformation of work, including its cinematographic adaptation;
 - (d) the distribution to the public of the original or a fixed copy of a work;
 - (e) the rental of the original or a fixed copy of a work;
 - (f) the public performance of a work;
 - (g) the broadcasting of a work;
 - (h) other forms of communication to the public of a work.

- II. The term “*moral rights*” is defined by S7 of the Copyrights Act 2014:
- (1) Notwithstanding the economic rights of the author and even after the transfer of the said rights, the author shall have the right —
 - (a) to claim authorship of the work;
 - (b) to object to any distortion, mutilation or other modification of, or derogatory action in relation to the said work, which would be prejudicial to his honour or reputation.
- III. The term work is defined as “*any artistic, literary or scientific work, or a derivative work.*” The definition of the above term is provided by S2 of the Copyright Act 2014:
- (a) means production in the artistic, literary or scientific domain;
 - (b) includes:
 - (i) a book, pamphlet or other writing;
 - (ii) an illustration, a map, plan or sketch;
 - (iii) a lecture, sermon or any other address of a similar nature;
 - (iv) a dramatic or drama-musical work;
 - (v) a musical work;
 - (vi) a choreographic work or pantomime;
 - (vii) an audio visual work;
 - (viii) a sound recording;
 - (ix) a work of—
 - (A) fine art, such as a drawing or painting; or
 - (B) architecture or sculpture, an engraving or lithograph or applied art;
 - (x) a photographic work;
 - (xi) a computer programme;
 - (c) does not include items specified in section 5.

S2 of the Copyrights Act defines “computer programme” as a set of instructions, expressed in words, codes, schemes or in any other form, which is capable, when incorporated in a machine-readable medium, of causing a computer to perform or achieve a particular task or result;

“*Derivative work*” means a translation, adaptation, arrangement or other alteration of a pre-existing artistic, literary or scientific work and which work includes:

- (a) a collection, compilation or arrangement or other transformation of pre-existing works, of expressions of folklore or traditional cultural expressions of mere facts or data whether in machine-readable or other forms;
- (b) an anthology, an encyclopaedia or a database; or
- (c) any other work, which, by reason of selection and arrangement of its contents, is original.

Under the Copyright Act 2014, it is to be noted that a discovery or mere data cannot give rise to copyright. The said section is reproduced beneath. As a result of the same, the said section is imperative.

– *S5 of the Copyright Act 2014:*

No protection under this Act shall extend to —

- (a) any idea, procedure, system, method of operation, concept, principle, discovery or mere data;
- (b) any official text of a legislative, administrative or legal nature, as well as any official translation thereof
- (c) news of the day or miscellaneous facts having the character of mere items of press information;
- (d) political speeches and speeches delivered in the course of legal proceedings;
- (e) the judgment of a court of law or tribunal.

A comparative analysis of the laws is brought to the fore and the cases used worldwide are as follows:

- **Int'l News Serv. v. Associated Press, 248 U.S. 215, 234 (1918)**

Case summary:

Facts: A newspaper agency published a piece of news which publishers obtained at pains and expense. A rival company published the very same piece of information.

Issue: whether this piece of news can be copyrighted or not?

Held: A piece of news can be copyrighted if it is obtained at pains and expenses. Hence, the rival company was acting in bad faith.

- **Feist Pubs., Inc. v. Rural Tel. Svc. Co., Inc., 499 U.S. 340 (1991)**

Fact: Appellant is specialised in an area-wide telephone directory covering a much larger geographic area than the Defendant. The Defendant refused to license its listing on white pages to the Appellant, hence, the latter extracted the listings.

The Lower Court held that telephone directories were subject to copyright.

Held: those white pages are not entitled to copyright, hence the Appellant using those pages does not amount to any infringement to the rights of the defendant.

There are no such laws in Mauritius as data is not considered to be entitled to copyright. Therefore, it is averred that the mere issue of a compilation of the data would not be subject to the protection of the law in Mauritius.

d. Trade secret/ Confidential information

The law of trade secret / confidential information can protect information that is held secret, has value due to that secrecy, and steps are taken to maintain secrecy. However, in Mauritius, trade secrets shall be the ones which are determined by the Protection Against Unfair Practices Act 2002.

These principles can apply to transactions in data depending on the circumstances.

Device manufacturers generally cannot claim trade secret ownership rights in data and information collected by the devices they sell to customers.

Similarly, consumers typically cannot claim trade secret rights in the data collected by the devices they own because normally consumers cannot claim a competitive advantage from keeping such data secret.

THE PROTECTION AGAINST UNFAIR PRACTICES (INDUSTRIAL PROPERTY RIGHTS) Act of 2002. The protection against unfair practices (industrial property rights) act of 2002

– *S9 of the PAUPA: Unfair Competition in Respect of secret information*

- (1) Any act or practice which, in the course of industrial or commercial activities, results in the disclosure, acquisition or use by others of secret information without the consent of the person lawfully in control of such information and in a manner contrary to honest commercial practices, shall constitute an unfair practice.
- (2) Any disclosure, acquisition or use of secret information by others without the consent of the rightful holder may, in particular, result from:
 - (a) industrial or commercial espionage;
 - (b) breach of contract;
 - (c) breach of confidence;
 - (d) inducement to commit any of the acts referred to in items (a) to (c); or
 - (e) acquisition of secret information by a third party who knew, or was grossly negligent in failing to know, that an act referred to in items (a) to (c) was involved in the acquisition.
- (3) For the purposes of this section, any information shall be considered “secret information” where:
 - (a) it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons who normally deal with the kind of information in question;
 - (b) it has commercial value because it is secret; and
 - (c) it has been subject to reasonable steps under the circumstances by the rightful holder to keep it secret.
- (4) Subject to subsection (5), any act or practice, in the course of any industrial or commercial activity, shall be considered an unfair practice where it amounts to or results in:
 - (a) unfair commercial use of the secret test or other data, the origination of which involves considerable effort, which has been submitted to a competent authority for the purposes of obtaining approval of the marketing of pharmaceutical or agricultural chemical products which utilize new chemical entities; or
 - (b) the disclosure of such data, except where necessary to protect the public unless steps are taken to ensure that the data are protected against unfair commercial use.
- (5) Subject to subsection (6), no person, other than the person who submitted undisclosed tests or other data, the origination of which involves considerable effort, shall rely on such data in support of an application for product approval for a reasonable period of time after the submission of those tests or data.

- (6) For the purposes of subsection (5), a reasonable period or time shall, taking into account the nature of the data and the person's efforts and expenditure in producing them, be not less than five years, unless the Minister decides otherwise.

The term *confidential information* is defined in the case of:

- **Saltman Engineering Co Ltd v Campbell Engineering Co Ltd [1963] 3 ALL ER**

The information to be a confidential must, I apprehend, apart from contract, have the necessary quality of confidence about it, namely, it must not be something which is public property and public knowledge. On the other hand, it is perfectly possible to have a confidential document, be it a formula, a plan, a sketch, or something of that kind, which is the result of work done by the maker upon materials which may be available for the use of anybody, but what makes it confidential is the fact that the maker of the document has used his brain and thus produced a result which can only be produced when someone goes through the same process.

I. *Confidential quality of information:*

1. There are *four main classes* of information which can be regarded as secret information and they are as follows:
 - a. Trade secrets
 - b. Personal confidences
 - c. Government information
 - d. Artistic and literary confidences
2. The material protected can be technical, commercial or personal.
3. Confidential information is not restricted to the written or printed word and an image may be regarded as confidential information.

II. *Important elements when testing for confidential quality*

- a. The information must be such that the owner believes that its release would be injurious to him or would be advantageous to his rivals or to others.
 - b. The owner of the information must believe it to be confidential or secret and not already in the public domain.
 - c. The information must be judged in the light of usages and practices of the particular trade or industry involved.
 - d. The law of breach of confidence cannot protect information which is already in the public domain. A compilation of materials taken from the public domain can be protected by a mixture of confidential information and matter already in the public domain. The onus will be on the defendant to show what is confidential and what is not.
- *Trade secrets:*
This term is often used in relation to confidential information associated with industrial and commercial activity.

- **Hebert Morris Ltd v Saxelby [1985] 1 ALL ER 724:**

The test is based on a detailed nature of the information. Information that is too detailed to be carried away in the head is a trade secret and whereas a general method or scheme that could easily be remembered could not be regarded as a trade secret.

- In **Faccenda Chicken Ltd v Fowler [1985] 1 ALL ER 724**, three categories of information were identified:
 - Information, which because of its trivial character or its easy accessibility from public sources cannot be regarded as being confidential;
 - The information which an employee must treat as confidential, but which once learnt, reasonably remains in the employee's head and becomes part of his skill and experience;
 - Specific trade secrets so confidential that a continuing duty of confidence applies even beyond the termination of employment or the service contract.

It happens mainly between companies, whereby employees use the information acquired during their employment, either to set up their own enterprise or work for a rival company.

However, so far it has not been used as such for taxation purposes. Its categorisation has been obtained and can be used for the purposes of the taxation.

e. Sui Generis rights

Some jurisdictions afford limited sui generis protection for collections of valuable data sets.

For example, European database laws offer copyright-like protection to creators of valuable databases. See Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases, 1996 O.J. (L 77) 20.

- *Definition of Sui Generis:*

It is used to describe a form of legal protection that exists outside typical legal protections – that is, something that is unique or different. Sui generis in Mauritius will be protected in the ambit of the Protection Against Unfair Practices Act 2002.

The other aspects that need assessment are the aspects of human rights laws.

f. Contract law

Parties are free to regulate the use of data provided under contract per the terms of the contract.

Contract law creates rights and obligations between the contracting parties and named beneficiaries, i.e., these agreements bind the other contracting parties but do not convey actual property rights.

Principle:

Contractual obligation is regulated by the Code civil Mauricien (CCM) as from *Article 1101 of the Civil Code*. *Article 1101 of the Civil Code* is read as follows:

“Le contrat est une convention par laquelle une ou plusieurs personnes s'obligent, envers une ou plusieurs autres, à donner, à faire ou ne pas faire quelque chose.”

Further, under the Data Protection Act 2017, an agreement may provide the lawful basis for the processing of data.

g. Regulatory Restrictions

Government regulation could impose obligations on those who acquire and process data, particularly personal data.

For example, EU lawmakers have taken broad action to promote data privacy with the General Data Protection Regulation, which prohibits companies from processing any personal data unless there is a statutory exception.

The Data Protection Act

- **S2 of the Data Protection Act:**

“Personal data” means any information relating to a data subject.

“Data subject” means an identified or identifiable individual, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that individual.

- **S21 of the Data Protection Act: Principles relating to processing of personal data**

Every controller or processor shall ensure that personal data are:—

- (a) processed lawfully, fairly and in a transparent manner in relation to any data subject;
- (b) collected for explicit, specified and legitimate purposes and not further processed in a manner incompatible with those purposes;
- (c) adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed;
- (d) accurate and, where necessary, kept up to date, with every reasonable step being taken to ensure that any inaccurate personal data are erased or rectified without delay;
- (e) kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed; and
- (f) processed in accordance with the rights of data subjects.

- **S23 of the Data Protection Act: Collection of personal data**

- (1) Subject to section 44, a controller shall not collect personal data unless:
 - (a) it is done for a lawful purpose connected with a function or activity of the controller, and
 - (b) the collection of the data is necessary for that purpose.

- (2) Subject to subsection (3), where a controller collects personal data directly from a data subject, the controller shall, at the time of collecting the personal data, ensure that the data subject concerned is informed of:
- (a) the identity and contact details of the controller and, where applicable, its representative and any data protection officer;
 - (b) the purpose for which the data are being collected;
 - (c) the intended recipients of the data;
 - (d) whether or not the supply of the data by that data subject is voluntary or mandatory;
 - (e) the existence of the right to withdraw consent at any time, without affecting the lawfulness of processing based on consent before its withdrawal;
 - (f) the existence of the right to request from the Controller access to and rectification, restriction or erasure of personal data concerning the data subject or to object to the processing;
 - (g) the existence of automated decision making, including profiling, and information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject;
 - (h) the period for which the personal data shall be stored;
 - (i) the right to lodge a complaint with the Commissioner;
 - (j) where applicable, that the controller intends to transfer personal data to another country and on the level of suitable protection afforded by that country; and
 - (k) any further information necessary to guarantee fair processing in respect of the data subject's personal data, having regard to the specific circumstances in which the data are collected.
- (3) A controller shall not be required to comply with subsection (2) where:
- (a) the data subject already has the information referred to in subsections (1) and (2); or
 - (b) the data are not collected from the data subject and –
 - (i) the provision of such information proves impossible or would involve a disproportionate effort; or
 - (ii) the recording or disclosure of the data is laid down by law.
- (4) Where data are not collected directly from the data subject concerned, the controller or any person acting on his or its behalf shall ensure that the data subject is informed of the matters specified in subsection (2).

• **S 28: Lawful processing**

- (1) No person shall process personal data unless:
- (a) the data subject consents to the processing for one or more specified purposes;
 - (b) the processing is necessary –
 - (i) for the performance of a contract to which the data subject is a party or in order to take steps at the request of the data subject before entering into a contract;
 - (ii) for compliance with any legal obligation to which the controller is subject;
 - (iii) in order to protect the vital interests of the data subject or another person;
 - (iv) for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller;
 - (v) the performance of any task carried out by a public authority.

Right to privacy: S3 and S9 of the Constitution of Mauritius 1968

- **S3 of the Constitution**

Fundamental rights and freedoms of the individual. It is hereby recognised and declared that in Mauritius there have existed and shall continue to exist without discrimination by reason of race, place of origin, political opinions, colour, creed or sex, but subject to respect for the rights and freedoms of others and for the public interest, each and all of the following human rights and fundamental freedoms:

- (a) the right of the individual to life, liberty, security of the person and the protection of the law;
- (b) freedom of conscience, of expression, of assembly and association and freedom to establish schools; and
- (c) the right of the individual to protection for the privacy of his home and other property and from deprivation of property without compensation and the provisions of this Chapter shall have effect for the purpose of affording protection to those rights and freedoms subject to such limitations of that protection as are contained in those provisions, being limitations designed to ensure that the enjoyment of those rights and freedoms by any individual does not prejudice the rights and freedoms of others or the public interest.

- **S9 of the Constitution**

- (2) Nothing contained in or done under the authority of any law shall be held to be inconsistent with or in contravention of this section to the extent that the law in question makes provision:
 - (a) in the interests of defence, public safety, public order, public morality, public health, town and country planning, the development or utilisation of mineral resources or the development or utilisation of any other property in such a manner as to promote the public benefit;
 - (b) for the purpose of protecting the rights or freedoms of other persons;
 - (c) to enable an officer or agent of the Government or a local authority, or a body corporate established by law for a public purpose, to enter on the premises of any person in order to value those premises for the purpose of any tax, rate or due, or in order to carry out work connected with any property that is lawfully on those premises and that belongs to the Government, the local authority or that body corporate, as the case may be; or
 - (d) to authorise, for the purpose of enforcing the judgment or order of a court in any civil proceedings, the search of any person or property by order of a court or the entry upon any premises by such order, except so far as that provision or, as the case may be, the thing done under its authority is shown not to be reasonably justifiable in a democratic society.

Data can be collected for the purposes of direct marketing in line with the Data Protection Act. On 4 September 2020, Mauritius agreed to sign the Protocol amending the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal data. Mauritius has therefore opened doors, through ratification that is awaiting the said decision. Mauritius being a dualist state, ratification would be required to ensure that the said protocol is made law in Mauritius.

h. Control

The fact of unique control over specific data sets may allow some enterprises to commercialize that data as a practical matter. Control may be exercised by not allowing others to access the data, or by transferring data only under limitations provided by the contract. As mentioned above, the control of the data is an important part.

Part One: Basic principles: Character, source and nexus

1.1. General overview

In Mauritius, the Data Protection Act 2017 provides the norms applicable to data transactions and all the obligations associated with the said transaction.

1.2. Character

According to S124 of the Income Tax Act 1995, the Director-General can make an assessment and collect the tax.

S 124 of the Income Tax Act 1995 reads as follows:

Notwithstanding section 44(6) of the Financial Services Act, sections 24 and 25 of the Data Protection Act, section 14(7) of the Companies Act or section 64 of the Banking Act 2007, every person, when so required by the Director-General, shall, within the time fixed by the Director-General, give orally or in writing, as may be required, all such information as may be demanded of him by the Director-General for the purpose of enabling the Director-General:

- (a) to make an assessment or to collect tax; or
- (b) to comply with any request for the exchange of information under an arrangement made pursuant to section 76.

By virtue of S2 of the Income Tax Act, the Director-General shall be the Director-General of the Authority i.e. the Mauritius Revenue Authority (herein the 'MRA').

An example when a data transaction can be classified as a service, is:

During the last few years, the use of cash is less than before because of the use of credit cards, debit cards and e-banking. Those transactions can be classified as a service.

An example when a data transaction can be classified as the license of intangible property is: Intellectual property can be an example of this type of transaction.

By virtue of S 21 of the Patent, Industrial Designs and Trademark Act of 2002, when a patent has been granted to the inventor, the latter may exploit the product by selling, using, offering for sale and importing.

1.3. Source

S5. Derivation of income

- (1) Income shall be deemed to be derived by a person where:
 - (a) the income was derived from Mauritius, whether the person was resident in Mauritius or elsewhere; or
 - (b) the income was derived at a time when the person was resident in Mauritius, whether the income was derived from Mauritius or elsewhere.
- (2) Subject to the other provisions of this Act, income shall be deemed to be derived by a person when:
 - (a) it has been earned or has accrued; or
 - (b) it has been dealt with in his interest or on his behalf, whether or not it has become due or receivable.
- (3) Income derived by an individual from outside Mauritius shall be deemed to be derived by the individual when
 - (a) it is received in Mauritius by him or on his behalf; or
 - (b) it is dealt with in Mauritius in his interest or on his behalf.

1.4. Nexus

For the purpose of taxation nexus is an important facet. One concept which has often been ignored is the concept of permission required and clearance required from the Data Protection Office.

Transfer of personal data outside Mauritius

- 37 (1) A controller or processor may transfer personal data to another country where:
- (a) he or it has provided to the Commissioner proof of appropriate safeguards with respect to the protection of the personal data;
 - (b) the data subject has given explicit consent to the proposed transfer, after having been informed of the possible risks of the transfer owing to the absence of appropriate safeguards;
 - (c) the transfer is necessary:—
 - (i) for the performance of a contract between the data subject and the controller or the implementation of pre-contractual measures taken at the data subject's request;
 - (ii) for the conclusion or performance of a contract concluded in the interest of the data subject between the controller and another person;
 - (iii) for reasons of public interest as provided by law;
 - (iv) for the establishment, exercise or defence of a legal claim; or
 - (v) in order to protect the vital interests of the data subject or of other persons, where the data subject is physically or legally incapable of giving consent; or
 - (vi) for the purpose of compelling legitimate interests pursued by the controller or

the processor which are not overridden by the interests, rights and freedoms of the data subjects involved and where:

- (A) the transfer is not repetitive and concerns a limited number of data subjects; and
 - (B) the controller or processor has assessed all the circumstances surrounding the data transfer operation and has, based on such assessment, provided to the Commissioner proof of appropriate safeguards with respect to the protection of the personal data; or
 - (d) the transfer is made from a register which, according to law, is intended to provide information to the public and which is open for consultation by the public or by any person who can demonstrate a legitimate interest, to the extent that the conditions laid down by law for consultation are fulfilled in the particular case.
- (2) A transfer pursuant to subsection (1)(d) shall not involve the entirety of the personal data or entire categories of the personal data contained in the register and, where the register is intended for consultation by persons having a legitimate interest, the transfer shall be made only at the request of those persons or in case they are to be the recipients.
 - (3) Subsection (1)(a) and (c)(i), (ii) and (vi) shall not apply to activities carried out by a public authority in the exercise of its functions.
 - (4) The Commissioner may request a person who transfers data to another country to demonstrate the effectiveness of the safeguards or the existence of compelling legitimate interests and may, in order to protect the rights and fundamental freedoms of data subjects, prohibit, suspend or subject the transfer to such conditions as he may determine.

So, technically any automation or transfer of the data outside Mauritius is subject to the prior approval of the Data Protection Office.

38. Automated individual decision making

- (1) Every data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or significantly affects him.
- (2) Subsection
 - (1) shall not apply where the decision is –
 - (a) necessary for entering into, or performing, a contract between the data subject and a controller;
 - (b) authorised by a law to which the controller is subject and which lays down suitable measures to safeguard the data subject's rights, freedoms and legitimate interests; or
 - (c) based on the data subject's explicit consent.
- (3) Any automated processing of personal data intended to evaluate certain personal aspects relating to an individual shall not be based on special categories of personal data.
- (4) In the cases referred to in subsection (2), the information to be provided by the controller under section 23 shall include information as to the existence of processing for a decision of the kind referred to in subsection (1) and the envisaged effects of such processing on the data subject.

- (5) In the cases referred to in subsection (2)(a) or (c), the controller shall implement suitable measures to safeguard the data subject's rights, freedoms and legitimate interest.

Part Two: Application of treaty principles

2.1. General overview

Being a dualist country, for a treaty provision to affect a transaction, the treaty provision should form part of our domestic laws. Hence, treaty provisions will only affect a data transaction if they form part of our domestic law.

2.2. Detailed comments

Currently, Mauritius has concluded 46 tax treaties and is a party to a series of negotiations.

Under a typical Double Taxation Treaty (DTA), a data transaction can be classified as *Business profits*.

The following extract is taken from the DTA between Mauritius and Barbados.

1. The profits of an enterprise of a Contracting State shall be taxable only in that State unless the enterprise carries on business in the other Contracting State through a permanent establishment situated therein. If the enterprise carries on business as aforesaid, the profits of the enterprise may be taxed in the other State but only so much of them as is attributable to that permanent establishment.
2. Notwithstanding the provisions of paragraph 1, where an enterprise of a Contracting State which has a permanent establishment in the other Contracting State carries on business activities in that other State, otherwise than through the permanent establishment, of the same or similar kind as the business activities carried on by the permanent establishment, then the profits of such activities may be attributable to the permanent establishment unless the enterprise shows that such activities could not have been reasonably undertaken by the permanent establishment.
3. Subject to the provisions of paragraph 4, where an enterprise of a Contracting State carries on business in the other Contracting State through a permanent establishment situated therein, there shall in each Contracting State be attributed to that permanent establishment the profits which it might be expected to make if it were a distinct and separate enterprise engaged in the same or similar activities under the same or similar conditions and dealing wholly independently with the enterprise of which it is a permanent establishment.
4. In determining the profits of a permanent establishment, there shall be allowed as deductions expenses which are incurred for the purposes of the permanent establishment, including executive and general administrative expenses, so incurred, whether in the State in which the permanent establishment is situated or elsewhere.
5. Insofar as it has been customary in a Contracting State to determine the profits to be attributed to a permanent establishment on the basis of an apportionment of the total profits of the enterprise to its various parts, nothing in paragraph 3 shall preclude that Contracting State from determining the profits to be taxed by such an apportionment

as may be customary. The method of apportionment adopted shall, however, be such that the result shall be in accordance with the principles contained in this Article.

6. No profits shall be attributed to a permanent establishment by reason of the mere purchase by that permanent establishment of goods or merchandise for the enterprise.
7. For the purposes of the preceding paragraphs, the profits to be attributed to the permanent establishment shall be determined by the same method year by year unless there is good and sufficient reason to the contrary.
8. Where profits include items of income which are dealt with separately in other Articles of this Agreement, then the provisions of those Articles shall not be affected by the provisions of this Article.

Data transactions can give rise to royalties when those transactions will involve the following copyright, any patent, trademark, design or model, plan, computer programme, secret formula or process, or for information concerning the industrial, commercial or scientific experience. As a result of same, the use of the information for the purposes of making money or the use of the data would give rise to the principle of business profit.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Mauritius does not have a specific piece of legislation for transfer pricing; however, the Income Tax Act of 1995 provides for the *arm's length test* through S 75 of the said act.

S 75 of the Income Tax Act 1995

- (1) This section shall apply to any case where:
 - (a) any business or other income-earning activity carried on in Mauritius:
 - (i) is controlled by a non-resident; or
 - (ii) is carried on by a non-resident company or by a company in which more than one-half of the shares are held by or on behalf of a non-resident; or
 - (b) in the carrying on of any business or other income-earning activity in Mauritius any person controlling that business or activity, by reason of his relationship or otherwise with any other person, is not in the opinion of the Director-General at arm's length with that person with respect to any commercial or financial transaction; and
 - (c) it appears to the Director-General that the business or other income-earning activity in Mauritius produces no net income or less than the amount of net income which in the opinion of the Director-General might be expected to be derived from that business or activity.
- (2) Where the conditions specified in subsection (1) are satisfied, the net income of any person carrying on a business or other income-earning activity in Mauritius shall be the amount which the Director-General determines would have been derived from that business or activity, had all its commercial and financial transactions and relations been wholly at arm's length.

has already adopted the country-by-country reporting obligation. Mauritius' Financial Institutions shall report to the MRA every year on the financial accounts held by non-residents for eventual exchange with relevant treaty partners.

It should be noted that Mauritius did not incorporate the OECD Guidelines as part of its transfer pricing rules, although the Guidelines are followed for administrative practice.

Part Four: Special regimes

4.1. General overview

For the development or sale of big data, contractual law may be applicable and intellectual property rights of an inventor, for example, may be applicable. There are new laws which have come across. In relation to the concept of new entities, the government of Mauritius provides the possibility of new entities to carry out new businesses. This is done through Regulatory Sandbox licences which are issued by the Economic Development Board. These are incentives that are being offered to the development of new schemes which allow for sandbox licences to be issued. The said provisions are part of the Economic Development Board Act, namely sections 22 to 26 of same.

Part Five: Indirect tax

As observed in the above section, the status of the law has remained the same except for the fact that the digital or electronic services have been added to the list. There are two observations in relation to the same.

Part IIIA—liability to value added tax on digital and electronic services

Under the budget speech, the taxation of digital services was evoked and the Finance Act (Miscellaneous Provisions) Act 2020 has come to rectify this situation. The current law, as it relates to the taxation of Digital and Electronic Services will be as laid down in the Section 14A and 14B of the Value Added Tax Act

- *S 14A of the VAT Act 1998: Interpretation of Part IIIA*

In this Part—

“digital or electronic service” means such service as may be prescribed, which is supplied—

- (a) by a foreign supplier over the internet or an electronic network which is reliant on the internet; or
- (b) by a foreign supplier and is dependent on information technology for its supply;

“foreign supplier” means a person who—

- (a) has no permanent establishment in Mauritius;
- (b) has his place of abode outside Mauritius; and

(c) supplies, in the course of his business, digital or electronic services to a person in Mauritius.

- *S14B of the VAT Act 1998: Foreign supplier to charge VAT*

VAT shall be charged in accordance with sections 10 and 12 on any digital or electronic service supplied by a foreign supplier to a person in Mauritius, subject to such conditions as may be prescribed.

Subsequently the said sections are as follows:

- *S10 of the VAT Act 1998: Rate of VAT*

- (1) Subject to section 51, VAT shall be charged at the rate specified in the Fourth Schedule and shall be charged –
 - (a) on any taxable supply by reference to the value of the supply as determined under section 12; and
 - (b) on the importation of any goods, other than those specified in the First Schedule, by reference to the value of the goods as determined under section 13.
- (2) Notwithstanding any other enactment or agreement and subject to subsections (3) and (4), where the rate of tax is varied before the supply of any goods or services takes place pursuant to section 5, the rate of tax on the supply of those goods or services shall be varied as from the date of the variation.
- (3) Where, in the course of the execution of a contract for the supply of any goods or services, the rate of tax is varied, the rate of tax on the supply of those goods or services shall be varied with respect to the remaining part of the contract as from the date of the variation.
- (4) Where, in respect of a continuous supply of services, invoices are issued at regular intervals and the rate of tax is varied, the rate of tax on the supply of those services shall be varied as from the date of the variation.
the VAT-registered person shall, on submission of his return for the taxable period in which VAT is deferred, include the deferred VAT as output tax in his return;
the deferred VAT shall, where it is declared as output tax in accordance with paragraph (a), be deemed to have been paid.

- *S12 Of the VAT Act 1998: Value of taxable supplies*

- (1) For the purposes of this Act, the value of any taxable supply made by a taxable person shall, subject to the other provisions of this Act, be determined in accordance with the provisions of this section and shall be expressed in Mauritius currency.
- (2) If the supply is for a consideration in money, its value shall be taken to be such amount as, with the addition of the VAT chargeable, is equal to the consideration or such other amount as the Director-General may determine.
- (3) The value of the supply shall be taken to be the open market value of the supply or such other amount as the Director-General may determine where the supply is –
 - (a) for a consideration not consisting, or not wholly consisting, of money; or
 - (b) not made in the course of an arm's length transaction.
- (4) Where a taxable supply is not the only matter to which consideration in money relates, the supply shall be deemed to be for such part of the consideration as is properly attributable to it.
- (5) For the purposes of subsection (3), the open market value of a supply of goods or services

- shall be taken to be the amount that would be assessed as its value under subsection (2) if the supply were for such consideration in money as would be payable by a person who has no relationship with any person which would affect that consideration.
- (6) Where a supply of any of the goods specified in Part I of the Seventh Schedule is made by a registered person –
 - (a) at the stage in the chain of distribution immediately before the stage of retail, VAT shall be calculated on such value of the supply as excludes the retail margin.
 - (b) at the stage of retail, VAT shall be calculated on the value of the supply as specified in paragraph (a).
 - (7) Where a supply of any of the goods specified in Part II of the Seventh Schedule is made by a registered person –
 - (a) at the stage in the chain of distribution immediately before the stage of retail, VAT shall be calculated on such value of the supply as includes the retail margin.
 - (b) at the stage of retail, VAT shall be calculated on the value of the supply as specified in paragraph (a).

As a comparison, section 14 has not been abridged as follows:-

- *S14 of the VAT Act 1998: Reverse charge on the supply of services received from abroad*
- (1) Where a person who does not belong in Mauritius and is not VAT registered makes a taxable supply of services which are performed or utilised in Mauritius, to a registered person, then all the same consequences shall follow under this Act as if the registered person had himself supplied the services in Mauritius and that supply were a taxable supply.
 - (2) Where a supply of services is treated as made by a registered person under subsection (1), section 21 shall apply and the registered person may claim the tax on the supply of those services as input tax.
 - (3) The invoice or other documentation from the person making the supply shall be treated like a VAT invoice.
 - (4) The value of the supply under this section shall be the amount paid or payable for the services.
 - (5) For the purposes of this section, a person does not belong in Mauritius if that person –
 - (a) has no permanent establishment in Mauritius for the carrying on of his business; or
 - (b) has his place of abode outside Mauritius.
 - (6) – (7) – Repealed by [Act No. 7 of 2020]

The Mauritius Revenue Authority favours a more direct destination tax as compared to the Origin tax in Mauritius. As has been rightly pointed out by Mrs Champawatee Gunnoo in the MRA Technical Journal, Volume 2 of August 2020, Mauritius should opt for a destination tax on digital services. Such a tax would be easier to compute and collect. It is further argued that in line with OECD guidelines, as she refers to that in the Journal, there is a need for further guidelines in Mauritius for ensuring that the destination tax is well conceived.

Part Six: Tax accounting

The area of taxation is nascent and therefore, it is of great importance to ensure that the current section of the law is being amended.

Data Brokers / Information Resellers

Broker Co by contract prohibits Customers from on-selling the data. Customers may use the purchased data sets for as long as they wish, although the value of a static data set decreases rapidly over time.

The bigger the data size the bigger the fees.

Most Customers are located outside Broker Co's country of residence and typically will download the data sets from Broker Co's servers. The data relates to persons resident inside and outside the residence jurisdictions of Website Co, Broker Co, and Customer.

(1) Payment by customers to Broker Co:

With reference to the above case scenario, the payment made by the customers to Broker Co are deemed to be business income as Broker Co is selling data acquired from Website Co which are processed according to the specification required by the customers. Once the customers have purchased the set of data, they may use it as long as they want as it has become their property.

(2) Payment by Broker Co to Website Co.

This transaction will mainly be a “*transfer of property*” transaction. Hence, it will depend on the contractual obligation between the two companies and also on the nature of data.

Pursuant Section 2 of the Income Tax Act 1995 of Mauritius (“ITA 1995”), royalty is defined as payment of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trademark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.

Based on the above scenario, Broker Co will make an annual payment to Website Co for access to user-generated data through API. In other words, Broker Co will acquire the copyrights to use the data of Website Co by making an annual payment.

In accordance with the definition of the royalty income as per section 2 of the ITA 1995, the payment made to Website Co is deemed to be royalty income as Broker Co is entering a contract with former for the rights to use of its data.

No, it will depend on the terms of the contract that parties have between them.

- Lease:

There should be a contract between the parties stating that one party is leasing the other party a set of data.

Article 1709 of the Civil Code: *Le louage des choses est un contrat par lequel l'une des parties s'oblige à faire jouir l'autre d'une chose pendant un certain temps, et moyennant un certain prix que celleci s'oblige de lui payer*

- License:

Like for leasing, for the purpose of licensing too, a contract will be needed to characterise the transaction as a license.

Provision of services can be defined as commercial activities whereby a party is obliged to provide a service to another party and the latter receives a payment.

With reference to the question asked, the transaction can be characterised as a provision of service as one party is providing the other party a service and also a fee is being paid for this transaction.

Yes, the payment will be based on two different things as discussed above. Furthermore, Broker Co can sue its customers if there is on-selling of the data which was given to them as they have a contractual obligation not to do so.

It shall be Website Co as it is the first source where data is being transferred.

Yes, because the transactions are different and also the Customers are not from the same jurisdiction as Broker Co.

Does it differ depending on the character of the transactions?

Yes.

How does the determination of source affect the tax treatment of the relevant income item?

As different jurisdictions are involved, the source will not be the same as every jurisdiction has its own domestic law.

Pursuant to section 74(1)(i) of the ITA 1995, income derived directly or indirectly from any source in Mauritius is deemed to be taxed in Mauritius.

Yes.

As per section 75 of the ITA 1995, the Director General shall apply the arm's length test and estimate the transfer pricing.

There are no transfer pricing regulations in Mauritius. However, there is a provision of an arm's length test as per section 75 of the ITA 1995 but it does not contain an accurate definition of the Arm's Length Principle. In the eventuality that the Mauritius Revenue Authority is not satisfied with the transaction, it will therefore be revised at arm's length as deemed appropriate by the latter.

Whether the transaction will take place in the same jurisdiction and the type of data which is involved in the transaction.

Data acquisition costs

Based on the scenario provided, an annual payment will be made to Website Co for access to user-generated data through API. The payment is deemed to be royalty income for Website

Co as it is granting rights to use its data in exchange of a consideration. The royalty income will be accounted under IFRS 15 whereas the cost incurred by Broker Co should be expensed.

Software development expenses

Here, the matching concept of accounting will be applied. The costs of software development should be expensed in the same period when the sales are being made. The intangible assets will be classified under IFRS 5 *assets held for sale* in the balance sheet and will be expensed when the sales of the data are made.

10.2. Data feeds

(i) character:

in contrast to the data broker case, Information Site Co does not sell the information received from Animal Data Co. Animal Data Co does not transfer the underlying data items; it transfers the output produced through the application of its data analytics software to the underlying data.

Do these differences affect the character of the payments by Information Site Co to Animal Data Co?

Yes, because there will be no transfer of ownership rights at the end of every transaction.

(ii) source:

The data is gathered from many places on earth. The data analytics tools are developed in Animal Data Co's jurisdiction, while Information Site Co makes the information available to viewers throughout the world via its website.

Is the source of income determined by the location of the origin of the data, the place of operations of Animal Data Co, the place of operations of Information Site Co, the location of viewers of Information Site Co's website, or some other place?

As Animal Data Co and Information Site Co are in two different jurisdictions, the two parties may decide between them what will be the governing law in the contract. Once, the governing law has been chosen by the concerned parties, the source of income will be determined by it.

(iii) nexus:

Animal Data Co is willing to sell access to its data feed to any person. Animal Data Co's sales model is based on advertising the availability of contracts through its website and then entering into contracts online. Assuming that Animal Data Co has no physical presence outside its jurisdiction of operation, could this remote sales model give Animal Data Co nexus in the Information Site Co jurisdiction under your jurisdiction's law?

(iv) treaty application:

Should these payments be treated as business profits?

It can be treated as business profits unless that the enterprise carries on business in the other contracting state through a permanent establishment situated therein. If the enterprise carries on business as aforesaid, the profits of the enterprise may be taxed in the other state but only so much of them as is attributable to that permanent establishment.

Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?

(v) VAT:

Could the exchange of access to the data feed for personal data generated from click-throughs be seen as an exchange for a value between Animal Data Co and Information Site Co?

Yes

If so, should that barter exchange be recognized as a transaction subject to VAT?

Yes, only if the concerned party is registered for VAT. Further, the barter exchange should also be able to quantify the value addition accruing to the individual, i.e., the open market value of such services to the individual.

Similarly, a viewer of Information Site Co's website allows its data to be transferred to Animal Data Co in exchange for viewing the information feeds on animal migration.

Should that exchange be treated as a barter exchange and recognized for VAT purposes (or any other tax purpose)?

Yes.

Performance Data Analytics

(i) character:

In all three of these cases, a large part of the value provided by Service Co derives from Service Co's data collection and data analytics capabilities. The automatic software corrections happen without human involvement at the time of delivery. Do these facts affect characterization analysis?

Yes, because the process will not be the same and hence, the characterisation too.

(ii) source:

This case includes a remote delivery of automated services from a data centre without direct human involvement in the service delivery at the time of delivery.

What is the source of services income in this case?

The data analytic tools.

Should the source determination be different if Service Co's analytics software is hosted on equipment owned by a third-party cloud service hosting provider?

Yes, as the process will not be the same once a third party has been involved.

(iii) nexus – sensors:

Following the Finance Act 2020, VAT on digital services has been introduced. In accordance with section 14B of the Value Added Tax 1998 of Mauritius, services provided via the internet by a foreign supplier in the jurisdiction of Mauritius is subject to VAT.

With reference to the above, if Broker Co is selling the set of data which is downloaded by the customers from its servers via the internet, the supply made in Mauritius will be subject to VAT.

In both the heavy equipment and consumer appliance cases, data is captured through sensors installed on equipment operating outside the residence state of Service Co. In the case of the heavy equipment, the sensor is installed by Equipment Co as original equipment and is therefore owned by the equipment owner. In contrast, the sensors installed on consumer appliances are acquired only by those customers desiring to purchase a service contract, and the sensors remain the property of Service Co.

Could those equipment items in either case create direct tax nexus or a PE in the jurisdiction where the equipment is located?

(iv) nexus – data centres:

The data centres which host the software necessary to provide the remote diagnostics and repair services are located near customers, outside the country of residence of Service Co.

Under what circumstances could those data centre create taxable nexus for Service in the other state?

Please consider the possibilities that the data centre assets are owned directly by Service Co, that the assets are owned by a separately incorporated affiliate of Service Co, and that they are owned by an unrelated party cloud hosting services provider.

(v) treaty application:

Should these payments be treated as business profits?

It can be treated as business profits unless the enterprise carries on business in the other contracting state through a permanent establishment situated therein. If the enterprise carries on business as aforesaid, the profits of the enterprise may be taxed in the other state but only to the extent that it is attributable to that permanent establishment.

Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?

(vi) transfer pricing:

in any of these cases, is there a transaction between Equipment Co and Service Co which must be assessed under the arm's length principle?

No

Analytics Based Consultancies

(i) character:

Consultant Co commercializes its structured database through different commercialization models. Are the two revenue streams characterized differently, and if so, why?

Yes, because the commercialization models are not the same and hence, the revenue streams too will be different.

(ii) treaty application:

Should these payments be treated as business profits?

Yes.

Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?

(iii) deduction vs capitalization and amortization:

how should the costs of data acquisition, software development, and creation and maintenance of the searchable database be treated?

The main issue is whether the assets could be capitalised and deducted or direct deduction be obtained. For that purpose, it would have to be determined whether the data acquisition, software development and maintenance would be determined as capital or not. The cost could be capitalised as it forms part of capital. No deduction would then be available for that purpose, as per section 26 of the income tax act. The fact that it is used to produce income makes it a capital expenditure. However, this might change in relation to the stand adopted by the government.

(iv) DST:

if your jurisdiction has or is contemplating a DST, could the DST apply to either type of revenue derived from commercializing.

So far there has been a direct tax that has been introduced in Mauritius. Popularly called the Netflix tax, the tax applies to all services of a digital nature. However, there is meant to be more regulations on same soon.

Summary and conclusions

With the digitalization of the economy, we have seen the proliferation of multi-sided businesses that are able to derive value from user contributions. MNEs have been able to create value by interacting with users in a particular jurisdiction, collect their information and find a secondary market that is willing to purchase the data once it has been aggregated and analyzed.

The digitalization of the economy and the proliferation of big data transactions have created significant challenges for international tax policy. Jurisdictions have often taken the view that they should hold taxing rights with respect to an item of income derived by a non-resident when such income is derived from sources in that country or by maintaining a taxable presence. The premise behind this view is that value is created in their jurisdiction by taking advantage of the economic conditions in a jurisdiction (i.e., roads, infrastructure, legal system, etc.).

Current sourcing rules are based on more traditional brick and mortar businesses and are not really tailored to heavily digitalized businesses without any physical presence. Nexus rules are also based under the faulted notion that a MNE needs a physical presence to derive value from a particular jurisdiction. In the context of big data transactions, MNEs are able to monetize user contributions by transferring structured data to other customers. While MNEs are able to do so without generally triggering taxes in the jurisdiction of the users, this raises the question of whether the jurisdiction of the users should have taxing rights over a portion of the income received by the MNEs. After all, MNEs are able to derive value by taking advantage of user contributions in a particular jurisdiction.

OECD member states as Mexico are well aware of how international tax rules have fallen behind with the economic reality of the digital economy. In an unprecedented effort, OECD member states have discussed in the context of the Pillar One framework, the possibility of establishing a particular nexus rule for these types of businesses and the allocation of certain non-routine profits under a formulaic approach (i.e., Amount A). As it has been the case for most of the OECD BEPS related measures, we would expect Mexico to adopt most of the recommendations under the Pillar One framework. In fact, Mexico has taken a step forward and in 2020 it updated its VAT and Income Tax laws to provide an effective mechanism to collect: (i) VAT triggered in the context of certain automated services that are provided by foreign digital platforms and, (ii) VAT and Income Tax triggered in connection to individuals providing services and selling goods through a digital platform that provides intermediation services.

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Despite Mexico's efforts, there are several issues outstanding in the context of big data transactions. The proliferation of big data transactions and the amount of value they can create raise the question as to how these transactions should be characterized for Mexican tax purposes. Clearly these should be a facts and circumstances analysis that may vary depending on the specifics of a particular arrangement, but Mexico lacks guidance as to which factors should be taken into account to characterize the transaction in a particular manner.

The characterization of these transactions under domestic law is important as it could determine how items of income are sourced for Mexican tax purposes. Absent a specific sourcing rule dealing with big data transactions, taxpayers need to rely on existing sourcing rules that were not drafted with the aim of dealing with these type of business models. In most instances, given the fact that sourcing rules were not drafted under the notion of a digitalized business, the existing sourcing rules raise the issue of whether the parameters used, are appropriate.

Further, Mexico relies on the PE concept to determine whether a non-resident should be subject to net basis taxation. The PE concept is based under the faulted notion that an MNE needs to have a physical presence to derive value from Mexico. Therefore, currently, it is hard to imagine that big data transactions entered into by foreign MNEs give rise to net basis Mexican taxation. This result is expected to be modified prospectively once a new nexus rule and a methodology to attribute profits that deviates from the arm's length standard, are established. These changes to domestic law would presumably need to be accompanied by modifications to Mexico's existing treaty network, given that article 5 and article 7 of Mexico's existing treaties would prevent taxation on these types of transactions.

As big data transactions continue to proliferate, the issues raised with respect to character, source and nexus will become more and more common. MNE's collecting and aggregating data of Mexican users should remain close observants of the policy developments on the Pillar One Framework and the route Mexico decides to take, as the treatment of these transactions under current rules is arguably going to be modified in the near future.

Introduction: Legal background

This branch report refers to the general description of commercial law principles described in the general report.

Part One: Basic principles: Character, source and nexus

1.1. Character

The digitalization of the economy has created new business models that rely heavily on user contributions to derive value. With the use of technology, multinationals in the digital economy have been able to collect, storage and process data from users and consumers. These businesses often rely on the data collected and analyzed to improve their internal processes and business strategies. However, other multi-sided businesses have been

able to leverage the data collected and have created new ways to earn new revenue streams by monetizing the data stored. The proliferation of these business models in the digital economy and the amount of value that these businesses can create through user contributions raise the question as to how these transactions should be characterized for tax purposes.

Mexican domestic law lacks specific guidance on how to characterize data transactions. In the absence of specific rules, taxpayers are left with applying general tax principles to the relevant facts and circumstances. The characterization of data transactions is relevant in the context of international taxation given that other matters as source and attribution of income may hinge on this conclusion.

The legal framework of data is another relevant factor to determine the appropriate characterization for raw data, structured data and big data analytics transactions for tax purposes. Mexico's Federal Law on Protection of Personal Data in Possession of Private Entities (*Ley Federal de Protección de Datos Personales en Posesión de los Particulares*; the 'Data Protection Law') imposes several responsibilities to persons collecting personal data from users and provides users with several protection rights. Among these protection rights, users are entitled to revoke any consent to use personal data and request the cancellation of data within another party's records. Therefore, under the Data Protection Law, a person that gathers and stores data from users cannot have legal ownership *per se* over the user's data, as users have the unilateral right at all times to request the deletion of their data.

Further, it should be noted that even if the data is aggregated in some manner, it would generally not be protected under copyright laws as it does not represent an original creation by the person collecting and aggregating such data. Although we understand that in some instances it is possible for a database to be protected under copyright law, it is rare to see a database being protected in the context of big data transactions.

In our view, raw data, structured data and big data analytics transactions can be characterized in three different types of transactions: (i) the sale or exchange of property, (ii) granting the temporary use of intangible property or, (iii) the provision of a service. Since each data transaction is unique no rule of thumb exists to characterize them and the determination would greatly depend on the specific facts and circumstances. Each of the constructs above raise significant questions from a tax perspective that may create uncertainty as to whether these are the right characterizations.

Under the sale of property construct, the consideration would need to be determined on the value of the data itself and not by any added value that may be created by the provider by aggregating data through an algorithm. This construct would be particularly difficult to sustain in the case of structured data and big data analytics transactions, as most of the value paid by customers in these cases derives from the aggregation and analysis performed rather than the data itself. This is strengthened by the fact that the value of raw data from each individual user is substantially less than the value of the data once it has been aggregated and analyzed by the provider. Further, if data were considered property for tax purposes, the collection of data from users would need to be treated as a barter transaction between the provider (who purchases the data from the customers in exchange of a service) and the users (who transfer their data in exchange of a service).

The property construct may be faulted given the fact that under the Data Protection Law, persons collecting and aggregating data, are generally not considered to have legal ownership of the data itself and the data itself would generally not be protected under copyright law. If data aggregators are not considered to have a legal ownership in the data, they cannot be considered to transfer the legal ownership of such data. This statement

would also hinder the position of treating these transactions as the license of intangible property. Finally, both these positions may be hard to support from a value perspective, as generally the consideration paid by a customer would be done on the basis of the aggregation and analysis of the data and not in exchange of the data itself.

Based on the above, the services construct would seem to be the most appropriate characterization. Albeit the matter is not free from doubt. While a person may not be considered to hold a property interest in data from a legal perspective, it could also be argued that data is akin to a self-created intangible. The notion of a self-created intangible is an economic premise where an enterprise is able to derive value from an asset that is neither recognized for legal purposes nor protected under copyright law. It is not strange for tax laws to recognize the economic ownership of assets that are not recognized for legal purposes as property nor protected under copyright law (i.e., a customer list, goodwill or ongoing concern) and thus, the legal treatment under the Data Protection Law of data transactions may not be dispositive of the issue.

Given the lack of a conforming principle for the different characterizations, the character of raw data, structured data and big data analytics transactions will depend on the relevant facts and circumstances. Several factors may become relevant to determine the characterization of these data transactions on an individual basis, including: (i) which party has a legal and economic ownership interest in the data, (ii) whether the data requires storage and analysis or whether it is passed on to the customer, (iii) whether the consideration agreed is paid by the mere passage of time, with respect to the amount of work performed or the value of the data and, (iv) the legal form and intent of the parties.

An important factor to characterize a data transaction is to determine who has a property interest in the data from a legal and economic perspective. If the customer is contractually impaired from transferring the data to other parties, it should not be treated as the economic or legal owner of such data and thus, the transaction should not be considered a sale or exchange of property. Conversely, if the provider is able to transfer the data to other parties, it could be treated as the owner of such data and the transaction with the customer should generally be treated as a service or a license. For example, in the Data Brokers/Information Resellers example, the payment from Customers to Broker Co should arguably not be treated as consideration for the transfer of property, given that Customers are impaired from on-selling the data collected by Broker Co. Further, since Broker Co is entitled to transfer the data to other Customers, the transaction should not be regarded as a transfer of data to the Customers given that Broker Co remains the economic and legal owner of the data.

As mentioned above, another relevant factor that may point to a particular characterization is to determine whether the provider is aggregating and analyzing data in a particular manner or whether it is transferring the data to the customer as it is collected. If the provider's participation is limited to providing access to information and data to customers, its limited participation would point to a property or license transaction, as the data is being transferred without any transformation or significant contribution by the provider. However, to the extent the provider has an active participation in the processing, aggregation and analysis of the data itself, the transaction should be more akin to a service contract, as the consideration paid by the customer would be determined with respect to the provider's involvement rather than the data itself.

For example, in the Data Brokers/Information Resellers case, the payment made by Broker Co to Website Co is more akin to consideration for the transfer of property or a license rather than a service, as Website Co's participation is limited to providing access to

a platform that allows the gathering of data generated through traffic on a website to be later aggregated by Broker Co. Regarding the payment made by Customers to Broker Co, the transaction is clearly more similar to a service and not a property or a license transaction, as Broker Co uses the data provided by Website Co and other data providers and has a significant contribution, as it uses its data analytics software to organize and structure the data from different outputs. This is also supported by the fact that the customer sets the parameters to the data gathered by Broker Co. Although it is harder to draw a line in this case, the same principle may apply in the Data Feeds example, where Information Site Co makes a payment to Animal Data Co in exchange of the transfer of the output data generated through a data analytics software. While Animal Data Co is not aggregating information from different providers as Broker Co in the Data Brokers/Information Resellers case, it still has a significant contribution to the process as it uses its data analytics tool to transform the data gathered into a structured output of data. Thus, it could be argued that even if Animal Data Co is aggregating data from one sole output, the transaction should be considered a provision of services as Animal Data Co is performing a significant contribution in the process.

Another relevant factor to decide on character of income is the way in which the consideration paid by the customer is determined, whether it is a fixed fee for the mere passage of time or whether it is consistent with the amount of work involved. Data transactions should generally be treated as a provision of services when the consideration received is determined with respect to the amount of work performed (i.e., the degree of analytics or size of the data aggregated). Conversely, data transactions where the consideration paid by the customer is composed of a periodical fixed fee regardless of the amount of work involved are more akin to a license of property, as this would seem to point out that the customer is compensating the provider for granting access to the data stored and not really the aggregation of the data.

In the Data Brokers/Information Resellers example, the consideration paid by Customers to Broker Co is more akin to a service transaction rather than payment for the temporary use of property, as the consideration paid by Customers is determined on the size of the data sets supplied and the degree of analytics involved (i.e., the amount of work performed) rather than by the mere passage of time. Conversely, in the Data Feeds example, the consideration paid by Information Site Co to Animal Data Co is determined on a monthly basis which may point to a license, as the pricing is determined without regard to the amount of data processing involved.

The Data Feeds example evidences that none of these factors are dispositive of the issue of characterization and that several transactions may have different traits that may point to different characterizations. In this example, the consideration paid by Information Site Co to Animal Data Co could be considered a service given that Animal Data Co plays a substantial role by transforming the data with its data analytics tools, but it could also be characterized as a license since the consideration paid is a monthly fixed fee.

The legal form and the parties' intent is also a relevant factor to characterize these transactions. The same data may be monetized through different commercial agreements and the nature of those commercial agreements may be relevant to determine the character of a transaction. For example, in the Analytics Based Consultancies example, the collection of data is monetized through different commercial transactions. Consultant Co creates a database which is used to support its consultancy services with its customers, but it also allows other customers to access its database in exchange of a fixed fee. Although the streams of income are created with respect to the same database, the legal nature of the

transaction points to different characterizations (i.e., services and license). This factor is particularly relevant in a form driven jurisdiction as Mexico, as the legal form of a transaction is generally respected for tax purposes in the absence of an abusive arrangement.

1.2. Source

Non-Mexican residents are generally taxed on a gross basis on certain items of income which are derived from sources in Mexico. Sourcing rules are important in Mexico's tax system since they are used to determine when items of income should be considered to arise in Mexico and thus, taxable to non-Mexican residents. Further, sourcing rules are also important in a worldwide system as Mexico as they play a major role in the computation of the foreign tax credit, given that generally only foreign taxes paid on foreign source income are creditable against a taxpayer's income tax liability.

While Mexico has several sourcing rules that are used to establish when a non-Mexican resident is subject to gross basis taxation, it lacks any indication as to how income should be sourced for purposes of the foreign tax credit. In the absence of specific rules, taxpayers have generally taken the view that the sourcing rules that govern Mexico's gross basis taxation regime are guiding principles for purposes of sourcing in the context of the foreign tax credit.

Title V of the MITL, which imposes gross basis taxation to non-Mexican residents, has several sourcing rules which apply depending on the type of income involved. Therefore, in order to determine the source of an item of income, taxpayers must first decide how the item of income should be characterized for tax purposes, as this conclusion will determine how such income should be sourced for tax purposes. As such, source must be analyzed on a case-by-case basis considering all facts and circumstances.

Absent a specific provision dealing with the source of big data transactions under domestic law, taxpayers are left with trying to determine sourcing based on existing principles. As mentioned before, the character of big data transactions is not entirely clear and there are several constructs which could apply, including the provision of services, sale or property or granting the temporary use of property.

Services are sourced in Mexico to the extent that the services are provided in Mexican territory, in which case, such services would be subject to a 25% withholding tax. In the context of big data transactions, if a particular transaction were to be characterized as a provision of services, it is unlikely that it would be sourced in Mexico as the services can be rendered without any physical presence in Mexican territory. Big data businesses that rely on user contributions to collect and structure data often do so without the need of conducting any activities in Mexican territory and thus, they would likely not be considered Mexican source income under existing law.

The analysis is more complex in the context of big data transactions which are characterized as granting the temporary use of property. In this case, if the item of income is treated as a royalty under domestic law, the transaction could be sourced in Mexico to the extent the royalties are paid in connection to property used in Mexican territory or paid by a Mexican resident. In this case, domestic law would impose a 25% withholding tax on such royalty payments. Conversely, if the transaction is not treated as royalty income under domestic law, the item of income should not be taxed in Mexico and would arguably not be considered Mexican source income for other purposes.

Under Mexican domestic law, consideration paid for granting the temporary use of an

asset can be treated as royalties if such payments are made in connection to the right to use certain copyrighted property, industrial, commercial and scientific equipment or in connection to the transfer of information concerning industrial, commercial, or scientific experiences (i.e., know-how). Further, in some instances, a transfer could also give rise to royalty income if the rights described before are disposed of in exchange of consideration that is conditioned on the productivity or use of the rights or property transferred.

In our view, the royalty characterization is unlikely in most big data transactions as the right to use the data is generally not transferred as the right to use an original creation but rather as a deliverable of a service that involves the aggregation of data. Further, it is also unlikely that the income from big data transactions could qualify as consideration paid for know-how as the information transferred rarely relates to preexisting information related to a commercial experience but rather information gathered on an on-going basis in connection to the performance of a service.

Under the sale of property construct, sourcing could depend on the nature of the property being disposed of. If the data transferred is considered an intangible good and the disposition is not otherwise treated as a royalty under domestic law, the transaction should not be treated as Mexican source income and should not be taxed to the non-resident disposing of such data.

While big data transactions could be sourced under Mexico's existing sourcing rules, such sourcing rules were not intended to be used in the context of a digitalized business that derives value from data collected from its users. This may create several issues once trying to source an item of income. From a tax policy perspective, there may be other parameters to source big data transactions which may be more reasonable to determine the source of an item of income (i.e., the location of the users providing the data, where the algorithm aggregating the data is used, the residence of the entity transferring the data, where servers are located, etc.).

For example, in the Data Brokers/ Information Resellers example, the consideration is more akin to consideration received in connection to a service. Under that construct, the payment made by the Customers to Broker Co would be sourced in Mexico, solely to the extent the service is conducted in Mexico. In this case, Broker Co gathers information from Website Co's interactions with users and other suppliers with whom it contracts. Broker Co invests in engineering personnel who develop the data analytics software and uses such software to structure the data transferred to customers. The engineering personnel seem to have solely developed the software but are not involved in the aggregation itself. Rather, the data seems to be aggregated without the intervention of the personnel. In this case, it is hard to determine where the service should be considered to be performed, whether it is in the jurisdiction where the software was created by the personnel, the jurisdiction where the software is protected under copyright law, the jurisdiction of residence of the provider or the location of the users whose data is being aggregated.

Sourcing big data transactions is a very complicated matter because providers often have multi-jurisdictional supply chains where several jurisdictions are involved. For example, you could have data that is being gathered from interactions with users located in jurisdiction A, by a provider that may be resident in jurisdiction B, with a VPN of jurisdiction C, which maintains servers in a jurisdiction E, using an algorithm created and protected under the laws of jurisdiction F and, selling the information to clients in jurisdiction G.

1.3. Nexus

Generally, non-Mexican residents may be subject to Mexican tax either through source or nexus. Specifically, a non-Mexican resident should be subject to Mexican taxes: (i) on the receipt of certain types of income, which is considered Mexican source income or, (ii) on account of maintaining a PE to which items of income are attributable.

Prior to 2020, a non-resident was generally considered to maintain a PE in Mexico to the extent it either: (i) maintained a fixed place of business through which a business was carried on, (ii) acted through a dependent agent who exercised powers to celebrate contracts on account or on behalf of the non-resident in connection to a business or, (iii) acted through an independent agent which was acting outside of its ordinary course of business.

As part of the 2020 Mexican tax reform and heavily motivated by BEPS Action 7, the domestic law definition of a PE was modified to include a non-resident acting through a dependent agent (a) who habitually contracts on behalf of the principal or, (b) plays a principal role in negotiating contracts entered into by the foreign principal and either: (1) such contracts are signed by the principal, (2) provide the transfer of assets owned by the foreign principal or granting the use of an asset that the principal has a right to use or, (3) require the foreign principal to provide services. Mexico's treaty network somewhat relaxes the domestic law definition of a PE, as it adheres to the OECD Model definition, although Mexico's treaty network will be modified prospectively either through the adoption of positions under the MLI or by renegotiating each treaty.

If a non-Mexican resident is considered to maintain a PE in Mexico, it should be subject to net basis taxation in Mexico at a 30% rate on any income attributable to the Mexican PE and would be required to file a tax return in Mexico.

As the OECD recognized in BEPS Action 1, nexus is one of the main challenges in the context of direct taxation in the digital economy. The digitalization of the economy has created business models that rely on technology and do not require a physical presence in a particular jurisdiction. Further, these multi-sided businesses have been successful on deriving value from user contributions and data collected without the need of establishing a local presence. Since Mexico has followed the traditional international tax rules and given that such rules were not designed to account for the existence of digitalized businesses, these businesses would rarely trigger a taxable presence under Mexican domestic law.

In the context of raw data, structured data and big data analytics transactions carried on by a non-Mexican resident, these transactions should not trigger a PE in Mexico provided the non-resident does not maintain a fixed place of business in Mexico to conduct such activities. Since the non-resident can collect data from users electronically and without the need of establishing a physical presence in the jurisdiction where the users are located, it would be unlikely that a PE is triggered. For example, in the Data Feeds example, despite that Animal Co is able to sell access to its data feeds through its website, it lacks a physical presence outside of its jurisdiction of residence. Therefore, it could not be said that Animal Co is conducting a business through a fixed place of business when it contracts with Information Site Co. This conclusion is somewhat confirmed by the OCED's Commentary to article 5 relating to electronic commerce, where it concluded that since a website is not tangible property, it cannot constitute a "fixed place of business".

Conversely, it should be noted that this determination depends exclusively on the facts and circumstances. There may be fact patterns where, given the specifics of the business, it is not clear whether a PE is triggered. For example, consider the Performance Data Analytics

example where Service Co maintains data centers outside of its country of residence. Given that data centers are tangible property that may have a physical location, such physical location could be considered as a “fixed place of business” in certain circumstances. In order for the data centers to rise to the level of a PE, they would need to be fixed (i.e., whether they are located with a certain degree of permanence at a specific location). Further, in order to trigger a PE with respect to the data centers, Service Co would need to be considered to carry its business through the location of the data centers. In this last case, the relevant question is whether Service Co has the location of the data centers at its disposal to perform functions of its consumer behavior consulting services and thus, it is relevant whether the Data Centers are owned by Service Co, a separate affiliate or an unrelated cloud provider since in the latter case the data centers should not be at the disposal of Service Co.

In addition, the Performance Data Analytics example raises other issues with respect to nexus. Both Equipment Co and Service Co install sensors in each of the devices sold to gather data outside of the country of residence of such entities. While the sensors installed by Equipment Co are owned by the equipment owner, the sensors installed by Service Co remain the property of Service Co who installs such sensors as part of a service contract. Sensors are tangible property that can be considered an installation and thus, could technically be a “place of business” for purposes of a PE analysis. In the case of the sensors installed by Service Co, it would seem unlikely that they could constitute a “fixed” place of business as there would seem to be an absence of a link between the sensor and a specific geographical point. However, this would not be so clear in the case of the sensors installed by Equipment Co due to the fact that they are installed on heavy equipment that presumably has a greater degree of permanence than the sensors installed by Service Co. The fact that Equipment Co is not the owner of the sensors would not change this conclusion since the OECD Commentary provides that the foreign enterprise does not need a legal right to use a place of business to have a fixed place of business. Ultimately, the matter will depend on whether or not it could be said that the sensors installed by Equipment Co are used by Equipment Co to carry on its business.

Further, it should be noted that even if a PE were triggered in the context of big data transactions, the question remains whether significant income would be taxed in Mexico. To a certain extent Mexico follows the Authorized OECD Approach under article 7 of the OECD Model Tax Convention to attribute profits to a PE, whereby it is required to take a separate entity approach and allocate income between the PE and the head office considering transfer pricing principles. The arm's length principle would take into account assets, risks and functions among the PE and the head office, but it would fail to take into account the value that is derived by the foreign resident from user contributions in Mexico. In fact, given that the intangible assets used to collect and aggregate the data and the functions are performed by the non-Mexican resident, most of the income (if not all) would be attributed to the head office.

Mexico's approach on the attribution of profits to a PE is based on the authorized OECD approach which relies on the arm's length principle to attribute profits within the same enterprise. The arm's length principle is based on the notion that the parties should be remunerated on account of the functions they perform and the assets they own but it fails to take into account that several enterprises may derive value from market participants in a particular jurisdiction. While the data collected from user contributions in a particular market may be monetized, the data is only valuable once it has been analyzed and aggregated with software analytic tools by a different participant (which may be located outside the market jurisdiction) and thus, most of the income of an enterprise would be

attributed to the jurisdiction where the aggregation is taking place and where the software analytic tool is owned.

This result is expected to be modified to a certain extent if Mexico decides to implement the OECD's Pillar One framework since in such case, a new nexus rule would be adopted to ensure these types of businesses create a taxable presence and a portion of the non-routine profits of a multinational enterprise may be attributed to the market jurisdictions under the construct of Amount A. In fact, Amount A represents the OECD's recognition that the arm's length principle is not the appropriate benchmark to attribute profits in a digitalized business, as it will rely in a formulaic approach to ensure that taxing rights over a multinational's profits are allocated to market jurisdictions.

Part Two: Application of treaty principles

2.1. General overview of Mexico's treaty policy in connection to characterization of income

The digitalization of the economy has created multi-sided business models that are able to derive value through different unconventional business models. As it is the case with domestic international tax provisions, treaty provisions have also fallen short in trying to distribute taxing rights among jurisdictions in the context of digitalized businesses. Given the lack of specific provisions or guidance in the context of some of the big data transactions, taxpayers are left with the difficult task of trying to apply treaty principles to these transactions.

The characterization of data transactions under treaties is relevant to determine under which treaty provision taxing rights will be allocated between the contracting states. While the domestic law characterization determines how the transaction should be taxed under the laws of one of the contracting states, the treaty characterization is not conditioned by the domestic law treatment of the transaction. That is, the characterization of a transaction for purposes of applying the treaty should be determined based on the provisions of the treaty irrespective of the domestic law characterization. In some situations, the treaty will rely on the domestic law definition of a particular transaction; however, the domestic law treatment of a particular transaction should not be dispositive of the treaty characterization.

Mexico has generally negotiated its treaty network including provisions similar to paragraph 4 of article 7 of the OECD Model Tax Convention. Therefore, in order to characterize an item of income for purposes of applying the treaty, taxpayer's first need to determine whether the particular item of income derived, is covered by any of the specific provisions of the convention. If the item of income is not covered by any of the treaty articles, then it should be determined whether the item of income could fall under the definition of "business profits". If the item of income would not fall under the purview of article 7 or any of the other specific provisions, then taxing rights would be distributed under the Other Income article of the convention.

While this generally resembles the path to characterize an item of income under the OECD Model Tax Convention, Mexico has particular treaty positions that may change the conclusion as to how taxing rights with respect to an item of income should be distributed under the treaty. Mexico deviates from the OECD Model Tax Convention in the sense that it has negotiated most of its treaty network with an Other Income Article that preserves the

right of the source state to tax any items of income not dealt before by any of the provisions of the convention.

In some treaties, the Other Income Article preserves the right to tax at source with respect to items of income not dealt with before in the convention but solely to the extent they arise from the source state (i.e., treaties with Canada, Netherlands, Luxembourg, etc.). These treaties often include language stating that an item of income that does not arise from the source state, should not be taxable in the source state as the residence state would have exclusive rights to tax such item of income. However, there are still other older treaties that preserve the right to tax at source with respect to items of income arising in the source state but are silent as to items of income from sources outside the source state (i.e., the US Treaty). In this case, in the absence of a particular provision, the source state would be able to tax such item of income.

Given Mexico's treaty policy to preserve taxing rights at source with respect to Other Income, the question of whether a particular item of income qualifies as "business profits" becomes quite relevant, as the qualification of the item of income will determine whether the residence state has an exclusive right to tax under article 7 of the convention or whether the source state maintains taxing rights under the Other Income Article.

Despite the importance of the term "business profits" to allocate taxing rights, there is little guidance as to how the term should be defined. As a result of the lack of guidance, Mexico's tax authorities and to a certain extent lower courts, have taken the view that the term must be defined, under article 3, paragraph 2 of the convention, according to the source's state law. This position has unfortunately resulted in Mexico interpreting the definition of "business profits" narrowly in an attempt to characterize items of income under the Other Income article and preserve source taxation.

Historically, Mexico's tax authorities had taken the view that the term 'business profits' should be interpreted to comprise our domestic law definition of business activities. In addition, article 175 of the MITL provides that the definition of business activities in the context of the income tax law excludes any item of income treated as Mexican source income under domestic law. This broad exclusion under article 175 of the MITL resulted in the Mexican tax authority taking the view that any item of Mexican source income which was taxed under domestic law could not be characterized as "business profits" for purposes of applying a tax treaty. This position led to unintended results from a treaty policy perspective, since domestic law treats certain types of income that would generally not fall under a specific treaty article and would generally be under the purview of article 7 as Mexican source income.

In an attempt to fix this issue, the tax authority issued administrative guidance to clarify that article 175 of the MITL should only apply in the context of domestic law (not treaties) and that "business profits" should be interpreted in accordance with the domestic law definition of business activities. Notwithstanding this clarification, the issue is not entirely resolved. The term business activities is defined by reference to activities having a commercial nature under the Federal Commercial Code ("FCC"). The FCC is a relatively old body of law and does not necessarily encompass all the types of active income that an enterprise can derive and thus, there could be fact patterns where certain types of income would be excluded from the "business profits" definition under this construct.

In the context of big data transaction, this may be particularly relevant. Given the fact that big data transactions may not be encompassed in any of the treaty provisions, taxpayers would need to determine whether or not they could qualify as 'business profits' for purposes of applying the treaty. If the appropriate interpretation is that 'business profits' should

be understood as any transaction that is considered a business activity under Mexico's domestic law, then it would be unlikely that a big data transaction would be encompassed under this definition. As mentioned before, the digitalization of the economy has shown that international tax laws have also fallen short in keeping up with the proliferation of new business models and thus, these types of transactions would clearly not be encompassed under our domestic law's definition of a commercial activity.

Another potential characterization, albeit less likely, is the royalty article under tax treaties. Mexico has deviated from the OECD Model Tax Convention in the sense that it allows taxation at source generally at a rate of 10%. Another deviation from the OECD Model Tax Convention is that Mexico's treaty network has been negotiated to include within the royalty definition, payments for the use of industrial, commercial, or scientific equipment ("ICSE").

In order to characterize income derived from big data transactions and determine whether Mexico has taxing rights under its treaties, the following would need to be determined: (i) whether the item of income could be characterized as royalty income under article 12 of the treaty, (ii) if the item of income may not be considered as royalty income for purposes of the treaty, whether such item could be considered as "business profits" and, (iii) if the item of income is not considered as royalty income or "business profits", then it would be under the purview of the Other Income article.

If the item of income is covered under the royalty article, Mexico would generally be allowed to tax at a rate that does not exceed 10% over the item of income. Conversely, if the item of income is not covered under the royalty article and it is considered as "business profits", Mexico would be allowed to tax only to the extent such income is attributable to a PE in Mexico (which would be unlikely). Finally, if the item of income does not fall under the royalty article or article 7, the Other Income Article would become relevant. In most instances, in order for Mexico to be entitled to tax under the Other Income Article, the item of income would need to be considered to arise from sources within Mexico. This analysis may be particularly difficult given the lack of an indication in the treaty as to how data transactions should be sourced for purposes of the treaty and the fact that Mexico lacks a specific sourcing rule with respect to such transactions.³

2.2. Treaty qualification of big data transactions

Article 12:

Whether a particular item of income should be characterized as royalty income for purposes of applying the treaty is a facts and circumstances analysis. Thus, there is no rule of thumb as to when income derived from big data transaction should be covered under the royalty article of existing tax treaties.

Payments made in connection to the transfer or access of data should generally not be considered as payments made for the use or right to use any of the property mentioned in article 12, paragraph 2 of tax treaties, since data is generally not protected under copyright law.

³ The analysis could be further complicated under several of the older treaties that Mexico has negotiated with its treaty partners that continue to include an article dealing with personal independent services, as Mexico held the view that such provision is applicable to companies and not just individuals.

Further, in our view, income derived from big data transactions should generally not fall under the purview of the royalty article of tax treaties when it involves the transfer or access of raw data or structured data as a result of performing services at the request of the payer. When big data transactions deal with the collection and aggregation of data that is gathered continuously and not with the transfer of information that already exists, the appropriate characterization would not be the royalty article.

The fact that the transfer or access to these data involves intangible property that does not already exist, is indicative that the consideration paid for such transfer or access should not be considered a “payment for the use or the right to use” and should be characterized as a service for collecting and aggregating information. This conclusion is somewhat confirmed by paragraph 10.2 of the OECD Commentary to article 12, paragraph 2 of the OECD Model Tax Convention which confirms that a payment cannot be said to be made for a design model or plan if it is made in connection to a design, model or plan that does not already exist.

For example, in the Data Feeds Example, Animal Co collects and aggregates data to provide a data feed to Information Site Co who is granted access to such feed in exchange of a monthly fee. The monthly fee paid by Information Site Co should not be considered a royalty, as it is not consideration for the use or the right to use existing information. Rather, Animal Co is compensated for continuously gathering and structuring the data as time goes by. This characterization should remain unchanged despite the fact that the structured data is transferred to Information Site Co through a continuous data feed which can be downloaded electronically.

Further, payments made in connection to the transfer or access to data cannot be understood to be payments made as consideration for information concerning industrial, commercial, or scientific experience when such information is new information that is obtained as a result of performing services at the request of the payer.

Payments made in connection to information concerning industrial, commercial, or scientific experiences (i.e., payment for know-how) relate to preexisting information and experiences and not new information that is gathered in connection to a service. Big data transactions should arguably not be included under this definition, when such transactions involve the collection and aggregation of new information on a continuous basis and not the transfer of information related to a commercial experience. This conclusion is somewhat confirmed by paragraph 11 of the Commentary to article 12, paragraph 2 of the OECD Model Tax Convention, which provides that payments for know-how do not include payments made in connection to new information gathered as a result of performing services.

For example, in the Data Brokers Information Resellers example, the Data Brokers are clearly hired by the customers, who set up the parameters of the data collection beforehand. In this case, the information transferred cannot be considered to be know-how since it constitutes new information obtained in connection to the performance of services.

Often, there is a thin line between consideration paid for the provision of services and for the supply of know-how. The OECD Commentary clarifies that payments made in connection to a supplier undertaking services may be considered as a provision of services despite the fact that the services may require the use of a special knowledge or experience. Conversely, payments made in connection to the supply of information where the payee is not required to do much else than to transfer such information, may be considered as payments for know-how and thus, royalties.

For example, in the Performance Data Analytics Example, Service Co performs consumer behavior consultancy services based on the information that it is able to gather from the consumer appliance user data. In this case, Service Co should be considered to be performing

a service for the purpose of treaty analysis, as it seems to be advising on consumer behavior based on the data gathered and, the data is not transferred to the customer. If the data were to be transferred to the customer, Service Co's functions were limited to supplying the data and the data involved Service Co's experience when dealing with this customers, the payment received by Service Co could be considered as payment for know-how and thus, under the purview of the royalty article.

Article 7:

The term "business profits" is not defined under the OECD Model Tax Convention or generally any of the treaties entered into by Mexico. Under article 3, paragraph 2 of most tax treaties entered into by Mexico, an undefined term should be defined under the laws of the state applying the convention, unless the context requires otherwise. Therefore, "Business Profits" could either be defined in accordance with Mexico's domestic law definition of business activities or, if it is considered that the context requires otherwise, the term should be defined giving it a broader meaning. In the context of big data transactions, this distinction is quite relevant given that big data transactions should not be included in Mexico's definition of commercial activities and thus, under the first construct, they would not be considered as "business profits" for purposes of the tax treaty.

The OECD Commentary to article 7, paragraph 4 provides that the OECD has not considered that the term "Business Profits" should be defined under the convention. However, the lack of a prevailing definition does not mean that the term should be defined solely in accordance with domestic law. The OECD Commentary clarifies that despite the lack of a definition, the term should be given a broad meaning and should encompass all items of income derived in connection to carrying on an "enterprise".

An enterprise is generally defined as the carrying on of a business. The term seems to include any activities carried on by taxpayers with the purpose of deriving income or profit which are continuous and regular. Although the determination of whether a particular activity is considered to be an enterprise for purposes of the treaty is a facts and circumstances analysis, it would seem to encompass activities which are continuous, regular and have the primary purpose of deriving profit. The Commentary clarifies that the provision of professional services and other activities of an independent character should be considered as carrying on an "enterprise" despite of their domestic law treatment. Therefore, despite the fact that domestic law may not recognize a particular activity as a commercial activity, the better view would seem to give a broad meaning to the term "enterprise" and include any activities that are frequently carried on by a taxpayer with the intent to derive income.

As such, while the term 'business profits' is not a defined term under the convention, using Mexico's domestic law to characterize such term would not be in accordance with article 3, paragraph 2 of the Convention, given that the context requires a different interpretation. The construct of defining "business profits" as any activity that has a commercial character under the FCC is a faulted notion, as the OECD Commentary clearly states that the term should be understood broadly as any item of income derived from carrying on an "enterprise". The relevant question for this determination is not whether the activity is considered to have a commercial nature under the FCC but whether the taxpayer conducts the activity regularly and continuously with the intent to make a profit.

While big data transactions should generally not be considered as a commercial activity

under the FCC, they should arguably be considered as “business profits” under article 7 of tax treaties. Taxpayers engaged in the collection and aggregation of data are clearly performing certain activities in a continuous, regular and sustained manner. Further, the activities conducted by such taxpayers are carried on with the intent to derive a profit which is materialized in the consideration received in connection to providing access to the aggregated data. For example, in the Data Feeds example, Animal Co is clearly conducting its activities regularly and consistently, as it provides a continuous feed showing migration patterns in exchange of a monthly fee. The fact that Animal Co charges a monthly fee for its activities is only indicative that it is conducting its activities with the intent of deriving a profit, as such income reflects Animal Co’s intent to monetize the aggregation of the data collected.

In our view, income derived from big data transactions should be considered “business profits” for purposes of applying tax treaties. Given the little likelihood of maintaining a PE in Mexico in connection to the activities performed by these businesses, whether or not such income will be taxed in the source state will then depend on whether income from such transactions could be captured in any of the other treaty articles. In this case, the other treaty articles would prevail over article 7.

Even if a PE were to exist in connection to the activities of big data businesses, the amount of income attributed to the PE may be immaterial. To a certain extent, Mexico follows the OECD authorized approach to attribute profits to a PE under article 7. Given that such approach relies heavily on the arm’s length principle to allocate income to the PE, most of the income, if not all, would be allocated to the head office, since most of the assets, risk and functions are attributable to the head office, given that user contributions are not necessarily recognized for these purposes.

This premise is also expected to be modified in the context of the OECD’s Pillar One work. While it is expected of Mexico to include a new nexus rule and that a portion of a MNE’s profits to be attributed under the construct of Amount A, Mexico’s treaty network will also need to be modified to allow the source state to tax “business profits” of a foreign enterprise that does not maintain a PE within the traditional meaning of article 5 of the Convention (i.e., a fixed place of business) and to provide with a method of attributing income which is consistent with the construct of Amount A.

Part Three: Digital Services VAT

In June 2020, a new tax law came into force. It incorporated new provisions regarding the income tax and Value Added Tax and directly affected the revenues generated from sales and services through the internet, digital platforms, digital applications and similar.

The VAT law has a new chapter that directly affects the digital services provided by foreign residents who provide services in Mexico and do not maintain a PE.

This should not be seen as a new tax but a way of giving reassurance that this tax will be collected, by giving them a specific chapter and not leaving it open to be considered as an importation of intangibles or services that are being used in national territory. These operations where commonly known as virtual VAT, since the VAT regulations established in article 50 that taxpayers who imported intangible goods or services that triggered the tax, could consider it as creditable in the same tax return and thus, not generating any real tax (virtual tax). Under this premise, the users of the digital platforms were required to

file a tax return and pay VAT on the import of goods and services, which in practice rarely happened and was very difficult to enforce from the perspective of the tax administration.

The new law establishes that the digital services will be considered as provided in Mexican territory when certain fact patterns are met. These fact patterns point towards the fact that the receiver of the service is located in Mexico even if the provider is located outside of Mexico and does not maintain a PE in the country.

The VAT tax reform establishes that the digital services will be subject to this new chapter when they are provided through digital apps or digital content through the internet or a similar network, mainly being automatic, with minimal or non-human intervention as long as they comprise of the following:

- Download or access to images, movies, text, information, videos, audio, music, games, (including games of chance), other multimedia content, multiplayer forums, ring tones, news online, traffic information, weather reports & statistics. This would not apply to the download or access to books, newspapers and electronic magazines;
- Intermediation between two parties that sell goods or render services between them;
- Online clubs, dating apps and dating pages;
- Online classes or test exercises.

The foreign suppliers that do not have a permanent establishment and are considered to be providing digital services in Mexican territory under the new chapter have the following obligations:

- Register with the tax authorities and get a tax ID;
- Offer the services to Mexican receivers showing the amount the client is paying on VAT;
- Providing the Mexican tax authorities monthly information every three months;
- Determine and paying the VAT (16%) for their services;
- Issue invoice under Mexican law and send proof of payment;
- Designate a representative of the company with the Mexican authorities and designate an address to receive notifications;
- Process the electronic signature with the Mexican Authorities.

Further, in the case of the foreign supplier who provides intermediation services between two users, they are also required to withhold and collect any VAT triggered in connection to the underlying sale of goods or services that they intermediate.

Data transactions may be under the purview of the new VAT on digital services, as in some situations these business models may entail the download of information through a digital platform. It should be noted that the sole storage of data is not considered as a digital service for purposes of the new VAT regime, as this fact pattern was eliminated through the legislative process of this new regime. Although the purpose of the elimination was to exclude cloud transactions from the purview of this new regime, this raises the question whether certain data feeds transactions could also be excluded as they involve storing and providing access to different data streams for the consumer to use its own data analytic tools.

Summary and conclusions

This report outlines the legal background and tax treatment of big data transactions in the Netherlands. The term big data transactions covers various commercial transactions and applications, including the development, deployment and exploitation of relevant technology, such as algorithms and software. Throughout the report, the term ‘data processing’, as set out in article 4(2) of the General Data Protection Regulation (“GDPR”),³ is used to refer to any operation or set of operations which is performed on (raw) data or on sets of data, whether or not by automated means.

Legal background

Ownership of data is not possible in Dutch property law, as data is not a tangible object. Data could be the object of other property rights, if this is provided by law or agreed contractually between parties. Contract parties could agree by private deed to transfer the right to use certain data. Depending on circumstances, the Dutch Databases Act (*Databankenwet* 1999) could provide a *sui generis* right to a systematically or methodically structured collection of data – but not data *sec* – which has required substantial investment specifically in relation to obtaining, verifying and presenting the data. Data processing software and data (as a collection of data/database or if the data is an original intellectual creation) could enjoy copyright protection by the Dutch Copyright Act (*Auteurswet* 1912). Data of a commercial value, which has been processed by means of having been subject to reasonable steps to keep it secret, may be protected as a trade secret under the Dutch Trade Secrets Act (*Wet bescherming bedrijfsgeheimen* 2018). Personal data and its processing are protected under the GDPR and the Dutch Data Protection Act (*Uitvoeringswet Algemene Verordening Gegevensbescherming* 2018).

Basic (domestic) and treaty principles on taxation of big data transactions

The character of a big data transaction is in principle not relevant for the purposes of Dutch direct taxation. The Netherlands does not have any special (nexus) rules that explicitly address taxation of big data transactions. The provisions of the Income Tax Act (*Wet*

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² Associate Professor of International Taxation and Tax Technology at Maastricht University.

³ Regulation (EU) 2016/679, OJ L 119, 4 May 2016.

Inkomstenbelasting 2001) and Corporate Income Tax Act (*Wet op de Vennootschapsbelasting* 1969) are generally applicable to big data transactions.

Unless income arising from big data transactions can be attributed to a foreign permanent establishment (“PE”), in which case it is treated as exempt foreign sourced business income, income from big data transactions will be taxable in the Netherlands under the ordinary corporate income tax rules. The Netherlands avoids double taxation in non-treaty situations, where income is sourced and subject to tax in a developing state, through a unilateral credit pursuant to the Decree for the Avoidance of Double Taxation 2001 (*Besluit voorkoming dubbele belasting* 2001, “ADT Decree”). Depending on circumstances, income from certain big data transactions could fall within the ambit of the royalty definition contained in the ADT Decree, which corresponds to the one included in the Organisation for Economic Cooperation and Development (“OECD”) Model Tax Convention 1977.

Income earned by non-residents will be subject to corporate income tax, if it can be attributed to a PE in the Netherlands. The Netherlands has introduced a source tax on interest and royalty payments to low-tax jurisdictions and non-cooperative jurisdictions on the list of the European Union (“EU”) as from 1 January 2021. Accordingly, the Withholding Tax Act (*Wet bronbelasting* 2021) may result in income from certain big data transactions qualifying as royalties, corresponding to the term in the OECD Model Tax Convention 2017, becoming subject to tax in the Netherlands.

The Netherlands strives to follow the OECD Model Tax Convention for purposes of defining a PE and royalties in tax treaties. However, in the context of tax treaties with (certain) developing states, the Netherlands might be open to negotiate a services PE or include payments for technical services in the royalty definition. Unless income from big data transactions falls within the ambit of a different tax treaty provision (e.g. royalties or technical services), it will typically be considered business income under the Dutch tax treaties.

Transfer pricing

The Dutch transfer pricing rules are aligned with the OECD Transfer Pricing Guidelines 2017. Neither the domestic nor the OECD guidance, however, explicitly addresses (all) issues arising in the context of big data transactions and consequently the (increasingly) digitalising business models. The Netherlands is committed to contribute to a speedy and smooth implementation of the agreement achieved on 1 July 2021 amongst the Inclusive Framework (“IF”) members on Pillar 1 and 2 of the OECD Base Erosion and Profit Shifting 2.0 project.

Special regimes

There is no digital services tax or similar tax in the Netherlands, and, following the IF agreement, no such unilateral tax is expected to be implemented in the Netherlands. Income from big data transactions could, under specific circumstances, be eligible for preferential corporate income tax treatment under the innovation box regime. Certain activities relating to the development of data processing software may be eligible for a wage tax credit.

Value added tax (“VAT”)

Any big data transaction would be considered a supply of services for VAT purposes and be taxed accordingly. The view that user data can be treated as consideration for a supply for VAT purposes has been expressed in the Dutch literature, contrary to EU VAT Committee guidance on barter transactions.

Tax accounting

The annual business profit for Dutch tax purposes is computed according to the principle of sound business practice (*goed koopmansgebruik*), which has been interpreted in extensive case law of the Supreme Court. Accordingly, income and corresponding expenses relating to big data transactions are in principle realised at the moment the taxpayer has completed her performance. Acquisition or self-development expenses relating to data processing software could be considered a depreciable fixed asset. In the case of self-developed software, the taxpayer also has the choice of deducting the development expenses in the year in which they incurred. The treatment of the acquisition costs of data might differ depending on the facts and circumstances.

Introduction: Legal background

Structure and terminology

This report outlines the legal background and tax treatment of big data transactions in the Netherlands. The term big data transactions covers various commercial transactions and applications, including the development, deployment and exploitation of relevant technology, such as algorithms and software. To ensure uniformity throughout this report, the term ‘data processing’, as set out in article 4(2) of the General Data Protection Regulation (“GDPR”),⁴ is used to refer to any operation or set of operations which is performed on (raw) data or on sets of data, whether or not by automated means, such as collection, recording, organisation, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction. Where relevant, we analyse the legal and tax consequences of raw data *sec*. Furthermore, we distinguish between the tax and legal implications of data processing software, which could be based on one or more algorithms, and (the formulation of) algorithms *sec* that have not yet been coded into software.

⁴ Regulation (EU) 2016/679, OJ L 119, 4 May 2016.

Property law

Article 3:1 of the Dutch Civil Code (*Burgerlijk Wetboek* 1992, “CC”) defines property as a legal object. It provides for a ‘closed system’ whereby property comprises of all things and all other property rights.

Article 3:2 CC defines ‘things’ as tangible objects that can be controlled by humans. Things can be the object of the right of ownership. According to article 5:1 CC, ownership is the most comprehensive property right that a person, i.e. the owner, can have in a thing. The owner is free to use the thing to the exclusion of everyone else, provided that she respects the rights and entitlements of others to the thing and observes the restrictions based on rules of written and unwritten law. The owner of the thing becomes the owner of its separated fruit and benefits, except when another person is entitled to them.

Article 3:6 CC defines ‘property rights’ as rights which, either separately or together with another right, are transferable, or which intend to give its proprietor material benefit, or which are obtained in exchange for supplied or the prospect of still to supply material benefit. Other property rights are subjective rights. One of the characteristics of subjective rights is that they embed certain powers that an entitled person may exercise with respect to an object against other persons. These powers should be explicitly provided by law or agreed contractually between parties.

Relevance for big data transactions

There is consensus that data does not fall within the definition of things for property law purposes.⁵ Therefore, ownership of data is not possible. Physical objects that store data (e.g. a USB-stick, a server, a hard drive) can be classified as things and their ownership is in principle transferable.

Data could be the object of other property rights if this is provided by law or agreed contractually between parties. At the moment, there is no law that grants data *sec* a right similar to that of the right of ownership. However, a legal basis for the qualification of certain rights relating to data as other property rights within the meaning of article 3:6 CC could be provided by the following legislation: (1) the Dutch Databases Act (*Databankenwet* 1999, “DA”) and (2) the Dutch Copyright Act (*Auteurswet* 1912, “CA”).

Databases Act

The DA is based on the European Union (“EU”) directive on legal protection of databases.⁶ Article 2 DA provides that the producer of a database has the exclusive right to authorise the following acts: (1) the extraction or re-utilisation of the whole or of a substantial part of the content of the database, evaluated qualitatively or quantitatively; (2) the repeated and systematic extraction or re-utilisation of insubstantial parts of the content of a database, implying acts which conflict with the normal exploitation of that database or unreasonably

⁵ F.S.M. Ruitinga, “Big data: vatbaar voor (faillissements) beslag?”, *Maandblad voor Vermogensrecht* 2019, no 6, p. 197-206; R.M. Wibier, “Big data en goederenrecht – een analyse van de plaats van big data in ons goederenrecht”, *WPNR* 2016, 7110, p. 427-436; T.F.E. Tjong Tjin Tai, “Data in her vermogensrecht”, *WPNR* 2017, 7085, p. 993-998.

⁶ Directive 96/9/EC, OJ L 77, 27 March 1996.

prejudice legitimate interests of the producer of the database.

Article 1(1)(a) DA defines a 'database' as a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means. Protection is subject to the condition that there has been a qualitatively or quantitatively substantial investment in either the obtaining, verification, or presentation of the contents of the database.

The right provided for in the DA is a *sui generis* right in the sense that it exists without prejudice to the copyright or other rights to the database or works, data or other materials included in the database. In essence, it protects the investment made by database producers in obtaining, verifying and presenting database contents, but not *per se* the creation of the data. Pursuant to article 2(4) DA, the right is transferable and hence falls within the definition of other property rights set out in article 3:6 CC. The right expires 15 years after completion of the making of the database (article 6 DA). Finally, the right applies only in respect of EU/European Economic Area makers of databases or right holders, including companies and firms (article 7 DA).

Relevance for big data transactions

Raw data would not qualify as a database within the meaning of article 1(1)(a) DA, as it would not meet the condition of being arranged in a systematic or methodical way. However, the existence of an index or a search function could potentially qualify a collection of unsorted data as a database.⁷ That could for instance be the case for customer lists or other contact information systematically organised, accessed and retrieved through data processing software, provided that there has been a substantial investment specifically in relation to obtaining, verifying and/or presenting the data.

The *sui generis* database right is a 'less strong' property right than the right of ownership of data. Furthermore, data *sec* is not the object of the right; it is the database, i.e. the structured collection of data which has required significant investment, that is protected.

Copyright Act

Pursuant to article 1 CA 'copyright' is the exclusive right of the maker of a literary, scientific or artistic work or her successors in title to make the work public and to reproduce it. This right can be passed on by succession or be wholly or partially assigned (article 2 CA). Article 10 CA provides for a non-exhaustive list of what falls within the scope of 'work' for purposes of the CA. Work is a non-physical creation that should be distinguished from the tangible object where it is being included. To meet the definition of work, a creation should have original character and carry the 'personal stamp' of the creator.⁸ Furthermore, article 10(3) CA grants copyright protection to collections of works, data or other independent material arranged in a systematic or methodical way and individually accessible by electronic or other means, without prejudice to other rights in the collection and without prejudice to

⁷ N.W.M. van den Heuvel, "Beslag op data", *WPNR* 2016, 7110, pp. 437-442; F.S.M. Ruitinga, "Big data: vatbaar voor (faillissements)beslag?", *Maandblad voor Vermogensrecht* 2019, no 6, p. 197-206.

⁸ Parliamentary Proceedings II, 2013-14, 33800, no 3.

copyright or other rights in the works, data or other materials incorporated in the collection. Finally, article 10(1)(12) CA also covers computer programs and preparatory materials.

Relevance for big data transactions

Data can enjoy copyright protection in the following cases and only if it meets the conditions that it is a work of original character and carries the 'personal stamp' of the creator: (1) as data *sec*; however, this is unlikely to be the case, especially in relation to factual data, which is seldom an expression of an original creation or carries the 'personal stamp' of the creator;⁹ (2) as a collection of data or database provided that also the conditions of article 10(3) CA are satisfied. This means that databases are copyright protected if by reason of the selection or arrangement of their contents, they constitute the author's own intellectual creation. In addition, the contents of the database must be separately accessible. The selection, systematisation or presentation of data can be original. Furthermore, developed data processing software could enjoy copyright protection on the basis of article 10(12) CA as literary work. Whilst (the formulation of) a data processing algorithm, formatting, functions, logic, or systems design is not protected under copyright (constituting an idea or principle), the object and source code of software can be protected, if it has original character in the sense that it carries the 'personal stamp' of the creator. However, similar to the other cases outlined above, this is a matter of case-by-case assessment and proof.¹⁰

Trade Secrets Act

The Dutch Trade Secrets Act (*Wet bescherming bedrijfsgeheimen* 2018, "TSA") is based on the EU directive on protection of trade secrets.¹¹ The TSA sets out the conditions under which a trade secret is unlawfully acquired, used and disclosed (article 2 TSA), and provides for measures and remedies which can consist of preventing the disclosure of information in order to protect the confidentiality of trade secrets (articles 5-9 TSA). Notably, the protection offered under the TSA should not create any exclusive right to the information protected as trade secrets. In other words, the TSA does not impose the creation of property rights over trade secrets; it only protects information qualifying as a trade secret against misappropriation.¹²

Article 1 TSA defines a trade secret as information which meets all of the following requirements:

- (1) it is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
- (2) it has commercial value because it is secret;
- (3) it has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

⁹ F.S.M. Ruitinga, "Big data: vatbaar voor (faillissements)beslag?", *Maandblad voor Vermogensrecht* 2019, no 6, p. 197-206.

¹⁰ See for instance Court of Arnhem, 18 July 2008, no 171900/KGZA08-415, *Computerrecht* 2008, 140, with annotation S.F.E. Verdonck; N. van Dijk, "Auteursrecht in profielen", *Computerrecht* 2010, 35.

¹¹ Directive (EU) 2016/943, OJ L 157, 15 June 2016.

¹² Parliamentary Proceedings II, 2017-18, 34821, no 3.

Relevance for big data transactions

Generally known or widely accessible data cannot meet the definition of a trade secret within the meaning of article 1 TSA. On the contrary, depending on the circumstances, secret data can qualify as a trade secret if it has commercial value and the person lawfully in control of this data has taken reasonable measures to keep the data secret. According to the European Commission, information kept as trade secrets, such as lists of clients/customers, internal datasets containing research data or other, may include personal data.¹³ It follows that data, which has been processed by means of having been subject to reasonable steps to keep it secret, could in this form in principle be protected as a trade secret. The same could apply in respect of data processing algorithms.

Contract law

The starting point of Dutch contract law is contractual freedom amongst the parties: a person is free to conclude a contract with whoever, over whatever and whenever she wants. However, in principle, parties cannot circumvent the 'closed system' of property law by agreeing on something that is impossible from a property law perspective. For instance, parties cannot agree that certain data is considered a thing within the meaning of articles 3:1 and 3:2 CC.

Relevance for big data transactions

The prevailing view in the literature is that parties could contractually agree by private deed (as required under article 3:95 CC) to transfer the right to use certain data.¹⁴ Notably, in this case the object of the contractual construction would not be the data *sec*, but the right to use such data.¹⁵

Regulatory restrictions (public law)

To address the requirements of the GDPR, the Netherlands passed the Data Protection Act (*Uitvoeringswet Algemene Verordening Gegevensbescherming* 2018, "DPA"). Since the adoption of the DPA, the Netherlands data protection authority (*Autoriteit persoonsgegevens*, "AP") has released several guidelines and explanations with regard to different topics under the GDPR, providing additional guidance to the application of the GDPR requirements on specific topics in the Netherlands.

Personal data is information relating to an identified or identifiable natural person, i.e. the data subject. A controller is the person that determines the purposes and means of

¹³ SWD/2013/0471 final.

¹⁴ N.W.M. van den Heuvel, "Beslag op data", *WPNR* 2016, 7110, pp. 437-442; F.S.M. Ruitinga, "Big data: vatbaar voor (faillissements)beslag?", *Maandblad voor Vermogensrecht* 2019, no 6, p. 197-206.

¹⁵ F.S.M. Ruitinga, "Big data: vatbaar voor (faillissements)beslag?", *Maandblad voor Vermogensrecht* 2019, no 6, p. 197-206.

the processing of personal data. A processor is the person that processes personal data on behalf of the controller (article 4 GDPR).

The DPA primarily applies to the processing of personal data of a data subject in the context of the activities of the establishment of a controller or a processor in the Netherlands. It also applies to the processing by a controller or processor not established in the Netherlands of the personal data of data subjects who are in the Netherlands, where the processing activities are related to: (1) the offering of goods or services, irrespective of whether a payment of the data subject is required, to such data subjects in the Netherlands; or (2) the monitoring of their behaviour to the extent that their behaviour takes place within the Netherlands (article 4 DPA).

Pursuant to article 5 GDPR, all processing of personal data must comply with certain principles. Personal data must be: (1) processed fairly, lawfully and transparently; (2) collected for specific, explicit and legitimate purposes and not processed in a manner incompatible with those purposes; (3) adequate, relevant and not excessive; (4) accurate and, where necessary, up to date; (5) kept in an identifiable form for no longer than necessary; and (6) kept secure.

The processing of personal data must also satisfy at least one condition for processing personal data. These conditions are set out in article 6 GDPR and require that the processing is: (1) carried out with the data subject's consent; (2) necessary for the performance of a contract with the data subject; (3) necessary for compliance with a legal obligation; (4) necessary in order to protect the vital interests of the data subject; (5) necessary for the public interest or in the exercise of official authority; or (6) necessary for the controller's or recipient's legitimate interests, except where overridden by the interests of the data subject.

The GDPR also grants data subjects the following rights: (1) transparency; (2) access to information; (3) data portability; (4) right to be forgotten; (5) objection to direct marketing; (6) other rights, e.g. correction of inaccurate data.

Finally, the GDPR and DPA provide extensive rules on data security and enforcement.

Relevance for big data transactions

Big data transactions involving personal data processing could be subject to restrictions on the basis of the GDPR and the DPA.

Part One: Basic principles: Character, source and nexus

1.1. General overview

1.1.1. The Netherlands policy on the taxation of the digital economy

From the outset, the Netherlands has been actively and constructively involved in the discussions on the taxation of the digital economy (Base Erosion and Profit Shifting ("BEPS") 2.0 project) at the Inclusive Framework ("IF") organised by the OECD and at the EU level. The key principles underlying the Dutch position in these discussions have been the following:

- Digitalisation has significantly changed traditional business models and the economy as a whole; this development warrants thorough research and discussion as to whether the current (international) tax system is fit for purpose.
- There is a strong preference that such research and discussion take place in a coordinated and international way with the view of achieving global consensus. This is in line with the position of the Netherlands in relation to other OECD and EU initiatives in the field of tax avoidance and evasion: tax avoidance and evasion are better and more effectively tackled at an international level.
- Similarly, there is a strong preference that any proposed solutions are internationally implemented in a coherent fashion.
- The Netherlands participates in these discussions with an open mindset, taking into account the Netherlands key policy objective of combating tax avoidance and evasion, while at the same time considering the Dutch investment climate.¹⁶

The Netherlands welcomed the IF agreement reached on 1 July 2021 on Pillar 1 and 2 of the BEPS 2.0 project and committed to contribute to an effective, speedy and smooth implementation thereof.¹⁷

1.1.2. *Laws on the taxation of big data transactions*

There are no specific Dutch direct tax laws that explicitly address taxation of big data transactions. The provisions of the Income Tax Act (*Wet Inkomstenbelasting 2001*, “ITA”) and the Corporate Income Tax Act (*Wet op de Vennootschapsbelasting 1969*, “CITA”) are generally applicable to big data transactions. As will be explained below, the principle-based approach of these laws does not trigger many issues in relation to big data transactions.

1.2. Character

1.2.1. *Personal income taxation*

Business income that is derived through an enterprise and income from other (economic) activities (collectively “box 1’ income”) undertaken by individual taxpayers are taxed at progressive rates under the ITA (37.07% for income below €69,398 and 49.5% for income in excess of that amount in 2022). Any big data transactions, to the extent they constitute

¹⁶ Parliamentary Proceedings II, 2017-18, 34 941, no 4; Notice on Tax Treaty Policy (*Notitie Fiscaal Verdragsbeleid* 2020), p. 1-5, available at: <https://www.rijksoverheid.nl/documenten/rapporten/2020/05/29/notitie-fiscaal-verdragsbeleid> (accessed on 24 November 2021). See also Report of the Advisory Committee on taxation of multinationals “*Op weg naar balans in de vennootschapsbelasting*”, 15 April 2020, available at: <https://www.rijksoverheid.nl/documenten/kamerstukken/2020/04/15/rapport-adviescommissie-belastingheffing-van-multinationals> (accessed on 24 November 2021). According to the Advisory Committee, implementation of internationally agreed solutions could mean that the Netherlands would have to depart from core principles of the Corporate Income Tax Act, such as capital import neutrality and territoriality.

¹⁷ Letter of the State Secretary of Finance to the Lower House of Parliament, 12 October 2021, available at <https://www.rijksoverheid.nl/documenten/kamerstukken/2021/10/15/uitkomsten-inclusive-framework-overherziening-internationaal-belastingstelsel> (accessed on 24 November 2021).

activity on an economic marketplace, are taxed at those progressive tax rates. Therefore, the character of a big data transaction, e.g. whether it should be treated as the provision of a service, license of intangible property, a sale or exchange of property, is not relevant in Dutch personal income taxation. In general, the same applies in respect of eligibility for tax deductions and exemptions in respect of 'box 1' income.¹⁸ No such rules relate specifically to big data transactions.

1.2.2. Corporate income taxation

The general principle in Dutch corporate income taxation is that all taxable income, irrespective of its character, is taxed in the same manner at a rate of 25,8% for taxable profits in excess of €395,000 in 2022.¹⁹ All income of resident corporate taxpayers is considered taxable income, unless specifically exempted. Article 2(5) CITA states by way of fiction that corporate taxpayers, leaving aside a few exceptions, carry on their business with all of their capital. There are no specific exemptions for income from big data transactions. Any income from a big data transaction is equally taxable, irrespective of the data processing activity from which it is being generated.

Although there is favourable tax treatment for income from subsidiaries (the participation exemption for dividends and capital gains in article 13 CITA) and income qualifying for the innovation box (see section 4.3.1), there is no other need to determine the tax character of a big data transaction as it has no potential impact on its tax treatment beyond the scope of those specific provisions.

1.3. Corporate income taxation of foreign sourced income

1.3.1. Business income attributable to a foreign permanent establishment

Article 15e CITA fully exempts foreign business income from corporate taxation in the Netherlands. Two situations may be distinguished: (1) foreign business income exempted in the Netherlands under a tax treaty; and (2) foreign business income earned in situations in which no tax treaty with the Netherlands applies. In the first situation, the base exemption in article 15e CITA covers all business income attributable to a foreign permanent establishment ("PE"), income from immovable property, and other income that the Netherlands must exempt under the tax treaty (see section 2 for tax treaty situations). In the second situation, the Netherlands exempts business income attributable to a foreign PE, income from immovable property situated in a foreign state, and income from profit rights in enterprises effectively managed in a foreign state.

A general definition of a PE, in article 3 CITA, applies since 2020. This definition corresponds to the term in the applicable tax treaty (article 3(4)(a) CITA), or, when no tax treaty applies, to the definition in the OECD Model Tax Convention 2017 (article 3(4)(b) to

¹⁸ For example, investments in certain business assets are incentivised with an investment deduction (*investeringsaftrek*), if the investment is small (max. €328,721 in 2021), environmentally friendly, or energy saving.

¹⁹ The rate for taxable profits up to €395,000 is 15%.

3(9) CITA). Article 3 CITA also applies to the ITA and the Wage Tax Act (*Wet op de loonbelasting* 1964).

Profit attribution to a PE generally follows the authorized OECD approach as per ministerial guidance.²⁰ There are no specific rules in Dutch tax law on attributing income from big data transactions to foreign or Dutch PEs. Given the intrinsic relation of this subject with transfer pricing, reference is being made to section 3 for further analysis.

Relevance for big data transactions

The Netherlands does not have special source rules applicable to big data transactions, such as a significant digital presence nexus. Unless the income arising from the big data transaction can be attributed to a foreign PE, in which case it is treated as exempt foreign sourced business income, the income from the big data transaction will be taxable in the Netherlands under the ordinary corporate income tax rules outlined in section 1.2 above.

Under the OECD PE definition, generally used by the Netherlands, physical equipment that stores or processes data may constitute a PE.²¹ It is important to determine whether the activities that are carried out through the equipment are of auxiliary or preparatory nature to the business of the enterprise that owns the equipment. In that context, a data centre that automatically runs data analytics on physical equipment may potentially constitute a PE as it may be considered to constitute a fixed place of business.²² When the main activities of the enterprise are designing, selling and servicing complex equipment, data analytics activities essential to servicing of the equipment are likely of auxiliary or preparatory nature to the business. In that case, the paragraph 4 exception of article 5 OECD Model Convention could apply. In contrast, when servicing equipment is automatically performed, without human involvement, through the data centre, that activity could belong to the core business functions of the enterprise and the data centre may constitute a PE under Dutch tax law.

1.3.2. Royalties and technical services

Royalty income is taxed as general business income, unless the innovation box regime in articles 12b-12bg CITA applies (see section 4.3.1). In the absence of a tax treaty (see section 2 for tax treaty situations), the Netherlands avoids double taxation of royalty payments unilaterally through the Decree for the Avoidance of Double Taxation 2001 (*Besluit voorkoming dubbele belasting* 2001, “ADT Decree”). An ordinary credit is granted to resident individual taxpayers in article 15 and to corporate taxpayers in article 36 ADT Decree, requiring that the royalty is sourced in and subjected to tax by a developing state.²³ Article 5(c) ADT Decree defines ‘royalties’ as “payments of any kind for: (1) the use of, or the right to use of, a copyright in a work in the field of science, a patent, a brand or trademark, a design or model, a plan, a secret recipe or method; (2) the use of, or the right to use of,

²⁰ Ministry of Finance, Decree on the attribution of profits to a permanent establishment, 15 January 2011, IFZ2010/457M.

²¹ Para. 122-131 of the OECD Commentary on art. 5 of the OECD Model Convention 2017.

²² Relevant case study example: 8.3 data centers.

²³ The list of qualifying developing states is determined by the Minister of Finance and is based on the OECD Development Assistance Committee's List of Recipients of Official Development Assistance.

any industrial, commercial or scientific equipment; (3) information concerning industrial, commercial or scientific experience; or (4) providing technical services in a developing state.” This current definition does not represent a material change from the term used in ADT Decree’s predecessor, i.e. the 1989 Decree.²⁴ The term was meant to correspond to the term ‘royalties’ used in the OECD Model Tax Convention 1977 with an additional provision for payments for technical services,²⁵ despite some textual differences with regard to copyrights for artistic and literary works. Only payments for the right to use are covered by the definition of royalties; payments for the transfer of intellectual property are excluded.²⁶ Royalties are sourced where the payor is established.

The term ‘technical services’ in the ADT Decree covers services in a technical field that require specific expertise or experience, according to the explanatory memorandum of the 1989 Decree. It lists as examples: exploration and exploitation of minerals and other resources, engineering activities, salvage operations, and similar activities.²⁷ Although the term ‘technical services’ is also used in article 12A of the United Nations Model Double Taxation Convention between Developed and Developing Countries (“United Nations Model Tax Convention”) and the relevant Commentary points to its relevance for big data transactions,²⁸ there is no clear legal position that the term is interpreted accordingly in the Netherlands.

Relevance for big data transactions

Depending on circumstances, income from certain big data transactions could fall within the ambit of article 5(c) ADT Decree, and thus be entitled to an ordinary credit. The analysis below is of a general nature and a case-by-case assessment will always be required in practice. In general:

- (1) the use or the right to use raw data, would typically fall outside the royalty definition;²⁹ there is a potential exception to this general rule: payments for confidential data that relate to industrial, commercial or scientific experience, such as a confidential list of customers to which the payee has provided a particular product or service. These payments would typically qualify as royalties;³⁰
- (2) a payment for the use or the right to use the copyright of copyrighted work (e.g. data processing software or copyrighted database) would typically fall within the aforementioned royalty definition;³¹

²⁴ Explanatory Memorandum, Decree of 21 December 2000, Staatsblad 2000, 642, p. 32-33.

²⁵ Explanatory Memorandum, Decree of 21 December 1989, Staatsblad 1989, 594.

²⁶ Amsterdam Court of Appeal 30 January 1976, no 510/75, BNB 1977/258, V-N 1977, p. 1452.

²⁷ Explanatory Memorandum, Decree of 21 December 1989, Staatsblad 1989, 594.

²⁸ Paras 90-91 of the Commentary on art. 12A of the United Nations Model Tax Convention on providing access to existing and custom-made databases.

²⁹ Relevant case study example: 8.1 payment from Broker Co to Website Co.

³⁰ Para. 11.4 of the OECD Commentary on art. 12(2) of the OECD Model Convention 2017. We consider this an update of clarifying nature, and hence no material change to the (Commentary on the) OECD Model Convention 1977.

³¹ Relevant case study example: 8.4 payment from researchers to Consultant Co is not for the use or the right to use the copyright of the database (assuming the latter is protected under the CA) and hence cannot constitute a royalty.

- (3) the ADT Decree does not explicitly refer to objects which enjoy protection by the *sui generis* right under the DA. However, given the DA's underlying purpose to protect intellectual property rights, a payment for the use or right to use *sui generis* database rights might arguably also amount to a royalty under the ADT Decree; alternatively, it could also be considered information concerning industrial, commercial or scientific experience;
- (4) a payment for the use or the right to use a data processing algorithm (not copyright protected) could qualify as a royalty, if it could be considered a secret recipe or method or information concerning industrial, commercial or scientific experience;³²
- (5) a payment for the use or the right to use a computer/server owned by another party for data processing could also qualify as royalty because a computer/server is equipment. However, data *sec* or data processing software/algorithms could not be considered equipment;
- (6) unless considered a technical service or provision of information concerning industrial, commercial or scientific experience, a payment for any other data processing activity would not be considered a royalty and would constitute business income.³³ As it is evident from the legislative history, the technical services provision was not written with big data transactions in mind and, although certain big data transactions may arguably also be considered services in a technical field for which specific expertise or experience is required, there is no interpretative guidance in case law or literature on the matter.³⁴

1.4. Taxation of non-resident corporate taxpayers

1.4.1. Business income attributable to a permanent establishment in the Netherlands

Non-resident corporate taxpayers are taxable on income attributable to a PE in the Netherlands, according to article 17 CITA. The PE definition in article 3(4)-(9) CITA equally applies to determine the presence of a PE in the Netherlands (see section 1.3.1). Articles 17 and 17a CITA also consider other types of income as taxable Dutch sourced income, for example income from immovable property situated in the Netherlands or income from profit-sharing rights in a business managed in the Netherlands, but these additional nexus rules are irrelevant for big data transactions with effect on the Netherlands.

³² Paras 11.5 and 14.3 of the OECD Commentary on art. 12(2) of the OECD Model Convention 2017. We consider these updates of clarifying nature, and hence no material change to the (Commentary on the) OECD Model Convention 1977.

³³ Relevant case study examples: 8.1 payment from Customer Co to Broker Co; 8.2 payment from Information Site Co to Animal Data Co (in the context of the outlined fact patterns, it could be argued that the services provided would not be of a technical nature).

³⁴ Relevant case study example: 8.4 payment from educational institutions to Consultant Co would in principle be considered business income. However, it cannot be excluded that it could also be seen as the provision of technical services. In the absence of relevant guidance, no firm position can be taken on this point.

Relevance for big data transactions

The Netherlands does not have special nexus rules applicable to big data transactions, such as a significant digital presence nexus. If the income arising from the big data transaction can be attributed to a PE in the Netherlands, it will be taxable under the ordinary corporate income tax rules outlined in section 1.2.2 above.

Physical equipment for automated data processing based in the Netherlands may constitute a PE, depending on the circumstances and core business functions of the foreign enterprise (see section 1.3.1 above).

1.4.2. Royalties

A withholding tax on interest and royalty payments to low-tax jurisdictions and non-cooperative jurisdictions on the list of the EU applies as from 1 January 2021.³⁵ This withholding tax levied under the Withholding Tax Act (*Wet bronbelasting 2021*, “WTA”) will apply to royalties as defined in article 3.4 WTA. This royalty definition corresponds to the term in the OECD Model Tax Convention 2017.³⁶

Relevance for big data transactions

The WTA may result in income from big data transactions qualifying as royalty payments becoming subject to tax in the Netherlands in 2021 that is not taxed under current law. Below we provide an analysis of the different big data transactions in this respect. Notably, this is a general analysis and a case-by-case assessment will be required depending on the factual background. In this respect, as a matter of principle, the conclusions reached in section 1.3.2 apply also under the WTA, with the following differences:

- (1) a payment for the use or the right to use a computer/server owned by another party for data processing would fall outside the aforementioned royalty definition;
- (2) a payment for any other data processing activity would fall outside the aforementioned definition of a royalty and would constitute business income,³⁷ unless it could be considered provision of information concerning industrial, commercial or scientific experience.³⁸

³⁵ 2020/C 64/03, OJ C 64, 27 February 2020.

³⁶ Parliamentary Proceedings II, 2019-20, 35 305, no 3, p. 33.

³⁷ Relevant case study examples: 8.1 payment from Customer Co to Broker Co; 8.2 payment from Information Site Co to Animal Data Co; 8.4 payment from educational institutions to Consultant Co.

³⁸ Reference is made in this respect to paragraphs 11-11.6 of the OECD Commentary on art. 12(2) of the OECD Model Convention 2017.

Part Two: Application of treaty principles

2.1. General overview

The most recent Notice on tax treaty policy of the Netherlands was published in 2020 (*Notitie Fiscaal Verdragsbeleid 2020*, “Notice”). The Dutch tax treaty policy is to follow, to the largest possible extent, the OECD Model Tax Convention and its Commentary for reasons of legal certainty and greater chance of achieving agreement with treaty partners.³⁹ According to the Supreme Court, clarifications in the OECD Commentary are relevant to interpret Dutch tax treaties, also when they were added to the Commentary after conclusion of the tax treaty.⁴⁰ However, an update in the Commentary as a result of changes to the text of the OECD Model Tax Convention would not affect the interpretation of tax treaties concluded before the update.⁴¹

The Netherlands aims to include the OECD BEPS minimum standards to counter tax treaty abuse through the Multilateral Instrument and also the vast majority of other BEPS actions.⁴²

The Notice does not express any specific Dutch tax treaty policies on the taxation of big data transactions. Any issues that would arise under the OECD Model Tax Convention 2017 would similarly arise under current Dutch tax treaty policy.

2.2. Detailed comments

2.2.1. *Business income attributable to a permanent establishment*

As already indicated in section 1, it is important for source and nexus in Dutch corporate taxation whether the income arising from a big data transaction is attributable to a PE. The Netherlands generally follows the OECD Model Tax Convention definition of PE in its tax treaties. The Netherlands has also generally subscribed to the changes to the PE definition laid down in the Multilateral Instrument.⁴³ In addition to the OECD Model Tax Convention definition, the Netherlands aims to include a provision relating to offshore PEs.⁴⁴ However, in relation with developing states, the Netherlands is also willing to include a services PE provision corresponding to the United Nations Model Tax Convention.⁴⁵

Relevance for big data transactions

Unless income from big data transactions falls within the ambit of a different tax treaty provision (e.g. royalties or technical services), it will typically be considered business

³⁹ Notice, p. 5.

⁴⁰ Supreme Court 9 December 1998, BNB 1999/267; Supreme Court 21 February 2003, BNB 2004/177.

⁴¹ Supreme Court 3 June 2016, BNB 2016/171.

⁴² Notice, p. 14.

⁴³ Ratification Act of the Multilateral Instrument (*Wet ter goedkeuring van het Multilateraal Verdrag 2019*).

⁴⁴ Notice, p. 17.

⁴⁵ Notice, p. 30.

income under the Dutch tax treaties and subject to taxation as per article 7 OECD Model Tax Convention or the equivalent tax treaty provision included in the applicable tax treaty.

2.2.2. *Royalties and technical service*

The Netherlands follows the OECD Model Tax Convention definition of royalties but is willing to include payments for technical services in the definition of royalties in its tax treaties with least developed states, provided that the services are performed in the source state.⁴⁶

Notably, the Dutch policy aim is to fully effectuate the source tax for interest and royalties levied as from 2021 under the WTA through its tax treaties.⁴⁷ This may require changes to existing tax treaties.

Relevance for big data transactions

Depending on the royalty definition contained in the respective tax treaty, the conclusions reached in sections 1.3.2 and 1.4.2 would apply *mutatis mutandis*.

Part Three: Transfer pricing

The arm's length principle has been codified in 2002 through article 8b CITA. Following the conclusion of the BEPS project and the 2017 update of the OECD Transfer Pricing Guidelines ("OECD Guidelines 2017"), a new and updated transfer pricing decree ("TP Decree") was issued on 11 May 2018.⁴⁸ The TP Decree recognises the relevance of the OECD Guidelines in relation to the application of the Dutch arm's length principle. Accordingly, the main objective of the TP Decree is to align the Dutch regulatory guidance with the OECD Guidelines 2017 and to provide the Dutch administrative position in respect of items that the OECD Guidelines 2017 leave room for interpretation. The State Secretary of Finance holds the view that, to the extent that the updates in the OECD Guidelines 2017 (as compared to the earlier versions) are clarifying the application of the arm's length principle, such updates are also of relevance for years predating the publication of the OECD Guidelines 2017.

The TP Decree does not provide any explicit guidance on how a multinational enterprise can deal with big data transactions from a transfer pricing perspective. As a result of the operation of the TP Decree and in the absence of specific Dutch administrative guidance, in principle the OECD Guidelines 2017 remain relevant for addressing transfer pricing matters in relation to big data transactions. However, the OECD Guidelines 2017 are also of a generic nature and do not provide explicit guidance on how to deal with the multiple issues arising in the content of (increasingly) digitalising business models and the catalyst role that data and technology play in this respect. At the same time, whilst digitalisation can have an

⁴⁶ Notice, p. 31. Compare the royalty definition in the ADT decree, see section 1.3.2.

⁴⁷ Notice, p. 34.

⁴⁸ Ministry of Finance, Decree on transfer prices, the application of the arm's length principle and the OECD transfer pricing guidelines for multinational enterprises and tax administrations, 22 April 2018, no 2018-6865.

impact on the whole value chain of a business, the extent to which that happens and the overall additional value that digitalisation brings, differs significantly amongst industries and businesses. Therefore, each situation requires a case-by-case assessment.

With these limitations in place, we seek to provide some general observations on transfer pricing and big data transactions in the context of the current state of play (i.e. the TP Decree and the OECD Guidelines 2017), which however should not be perceived as being applicable to specific situations.

To start with, it seems to be generally accepted in international literature and at the OECD level that data may, given the circumstances, qualify as an intangible asset within the notion of chapter 6 OECD Guidelines 2017. The question that arises is how to determine and attribute value to that asset in the context of digitalising business models, as logically not all data is of the same value to a business. To the best of our knowledge, this question has not been (firmly) answered in Dutch literature. However, it could be expected that the answer to this question would be interlinked with the questions: for which activities is that data being collected (why?); which parts of the business, and to what extent, are benefiting from these activities (where and how much?).

An additional item to consider is how any additional value and hence profits generated by digitalising business models can be allocated to the different members of a multinational enterprise. As per chapters 1-3 OECD Guidelines 2017, functions performed, risks assumed, and assets used by the involved members of a multinational enterprise remain pivotal for any transfer pricing analysis; hence also in relation to big data transactions. Against this background, it could be argued that data collection and storage could be considered low-value activities, especially if no (substantial) risks are being borne in this respect and any assets used are of (comparatively) low value.⁴⁹ Further processing of the data, such as the interpretation and analysis thereof, and the control over the development and maintenance of relevant data processing software and other technology, are more likely to contribute to unfolding the value of data. It is therefore the member(s) of the multinational enterprise that perform these activities that would typically be allocated the largest portion of the profits.

It is evident that the current transfer pricing rules (in the Netherlands and at the OECD level) give rise to uncertainties pertaining to big data transactions and consequently (increasingly) digitalising business models. Accordingly, (inter)national guidance on traditionally key transfer pricing notions such as assets (including intangibles) and (routine and strategic) functions and how they should be applied in the context of big data transactions would be of importance. The Netherlands is committed to contribute to a speedy and smooth implementation of the agreement achieved on 1 July 2021 amongst the IF members on Pillar 1 and 2 of the OECD Base Erosion and Profit Shifting 2.0 project.

⁴⁹ It can be reasonably expected that this is a topic of discussion that will continue to evolve in the coming years, especially given the fact that there are increasing views in international literature that data *per se* and their collection is of high value for a large number of digitalising business models.

Part Four: Special regimes

4.1. General overview

The Netherlands has not enacted a tax specifically targeting digital services, and, following the IF agreement, no such unilateral tax is expected to be implemented in the Netherlands. Relevant incentives in the context of big data transactions are the Dutch innovation box and a wage tax credit.

4.2. Digital services tax

The Netherlands has not enacted a digital services tax (“DST”) or similar tax.

On 25 April 2019, the Dutch opposition parliamentary party PvdA (“Labour Party”) announced to publish an initiative bill to introduce a DST.⁵⁰ The initiative bill would set out a 5% tax on revenues from the following types of digitalised activities: (1) advertising on digital platforms; (2) offering an online marketplace; (3) (paid) streaming services; and (4) the monetisation of user data.

The Labour Party also submitted a motion to instruct the Dutch government to implement a DST. The motion was rejected by majority vote in the Lower House of Parliament. No legislative process in respect of a DST has since commenced or is expected to commence.

4.3. Incentives

4.3.1. Innovation box

Articles 12b-12bg CITA set out the innovation box regime and the conditions of its application. In essence, subject to meeting the conditions set out in the law, corporate taxpayers may elect to subject income attributable to qualifying intangible assets to an effective tax rate of 9% (as from 2021).

For the purposes of assessing whether a taxpayer has a qualifying intangible asset, article 12ba(1) CITA distinguishes between ‘small’ and other taxpayers. Small taxpayers can apply the innovation box on income derived from an intangible asset that has resulted from research and development (“R&D”) activities in respect of which the taxpayer has obtained an R&D certificate (for the definition of an R&D certificate, see section 4.3.2). CITA does not define the term ‘intangible asset’; from legislative history it follows that an intangible asset must have the character of a business asset.⁵¹

Other taxpayers need to fulfil a double requirement: (1) the intangible asset has resulted from R&D activities in respect of which the taxpayer has obtained an R&D certificate; and (2)

- the intangible asset is covered by a patent or a plant breeder’s right that has been obtained;

⁵⁰ The announcement is available at <https://www.pvda.nl/wp-content/uploads/2019/04/190424-Nota-Initiatiefwet-Digitale-Dienstenbelasting.pdf> (accessed on 24 November 2021).

⁵¹ Parliamentary Proceedings II, 2016-17, 30 572, no 24.

- an application for a patent or a plant breeder's right has been filed;
- it concerns software;
- the intangible asset is formed by a licence to distribute medication for human or animal application;
- a supplementary protection certificate has been issued by the Dutch Patent Office;
- a registered utility model has been granted for the purpose of the protection of the innovation; or
- the intangible asset is formed by an exclusive licence obtained for the limited use of the intangible asset.

The innovation box applies only in respect of income from qualifying intangible assets which have been developed by the taxpayer herself or on her risk and account. The term 'income' has the same meaning as in article 3.8 ITA, which, by virtue of article 8 CITA, also applies to corporate taxpayers. Pursuant to article 3.8 ITA "[t]he profit from a business enterprise is the amount of the aggregate benefits that, under whatever name and in whichever form, are derived from a business enterprise". In this sense, in order to determine the income from a qualifying intangible asset, there should be a causal link between the R&D activity and the profit.⁵² Income includes both positive and negative income generated from the asset, capital gains or losses and sales income from the resulting product.

For the purposes of attributing income (and expenses) from a qualifying intangible asset to the innovation box, the Dutch tax policy is a restrictive one: only the purely intellectual factor is being compensated. Such attribution is largely dependent on the facts and circumstances of each individual case and is typically the subject of an agreement with the Dutch tax authorities. The general principles of such attribution are described in the Innovation Box Decree (*Besluit innovatiebox*).⁵³ In situations where R&D is a key value driver for the business, the most commonly used method is profit split. Broadly speaking, the profit split method requires the identification of the business' core and routine functions and allocates income to such functions depending on their contribution to the business. What constitutes a core function depends on the business model. Examples could be the entrepreneurship, R&D or production, marketing and sales, and logistics.

Following the adoption by the OECD of the final report on BEPS Action 5, the innovation box was amended as per 1 January 2017 to be brought in line with the 'nexus approach'.

Relevance for big data transactions

Provided that the R&D certificate requirement is met, income derived from big data transactions which has a causal link with data processing software developed by a taxpayer could in principle be eligible for the innovation box. The extent to and the method under which such income can be attributed to the innovation box depends on the facts and circumstances of each individual case and in particular the contribution of the R&D function in the business of the taxpayer. Notably, algorithms *sec* that have not been coded into software cannot benefit from the innovation box (see also section 4.3.2).

⁵² Z. Zalmi, ch. 17: Netherlands in taxation of intellectual property under domestic law, EU law and tax treaties (G. Maisto ed., IBFD 2018), Books IBFD (accessed on 24 November 2021).

⁵³ Ministry of Finance, Decree on innovation box, 21 November 2017, no 2017-19764, as actualised through Ministry of Finance, Decree on innovation box, 6 December 2018, *Stcrt.* 2018, 68661.

4.3.2. R&D tax credit

Dutch legislation (*Wet vermindering afdracht loonbelasting en premie voor de volksverzekeringen* 2020) provides for an incentive on salary costs related to R&D activities in the form of a wage tax reduction. The reduction amounts to 32% of the first EUR 350,000 of R&D costs (both salary and other costs and expenses). For start-ups, this amounts to 40%. For the excess, the reduction amounts to 16%.

Taxpayers can qualify for the R&D tax credit if they are entrepreneurs, i.e. either self-employed individuals or taxable bodies as defined in the CITA. The taxpayer needs to undertake activities in the following areas:

- conducting technical scientific research; or
- development of (parts of) technically new physical products, physical processes or software.

Based on guidance issued by the Netherlands Enterprise Agency (*Rijksdienst voor Ondernemend Nederland*, “NEA”), the description of models, the formulation of algorithms or the description of architecture cannot be regarded as development of technically new software, and hence cannot qualify for the R&D tax credit.⁵⁴

An employer, who is a resident in the Netherlands, or a non-resident with a PE in the Netherlands, can apply for an R&D certificate (*S&O-verklaring*), if qualifying activities are performed by persons who are employees of the taxpayer within the meaning of article 2 Wage Tax Act. The R&D certificate is granted if more than 500 hours are spent per year on the qualifying activities outlined above.

Relevance for big data transactions

Provided the relevant conditions are met, activities relating to the development of data processing software could in principle be eligible for the R&D tax credit. However, on the basis of NEA's guidance, the formulation of an algorithm *sec* that has not been coded into software cannot give entitlement to the R&D tax credit.

4.4. Barter treatment

The EU Value Added Tax (“VAT”) Committee unanimously agreed that there is no taxable transaction for VAT purposes when internet services are provided in exchange of user data, without requesting monetary consideration, as long as those services are offered under the same conditions to all users of the internet, irrespective of the quantity and quality of the personal data they provide individually, in such a way that no direct link can be established between the services provided and the consideration in the form of personal data received.⁵⁵

The view that user data can be treated as consideration for a supply for VAT purposes

⁵⁴ NEA, “Handleiding WBSO 2021”, available at: https://www.rvo.nl/sites/default/files/2021/05/Handleiding_WBSO_2021.pdf (accessed on 24 November 2021).

⁵⁵ VAT Committee Guidelines of the 111th meeting of 30 November 2018, Document B – taxud.c.1(2019)3722302 – 967.

has been expressed in the Dutch literature.⁵⁶ In general, in order to determine whether there is a consideration, there has to be a direct link between a supply and the consideration, which implies an agreed reciprocal performance based on a legal relationship, and the consideration must be capable of being expressed in money. According to Bijl, there might be cases where the link between a certain supply (e.g. the use of or access to software) and the consideration (e.g. access to customers' personal data) can be more easily established. That could for instance be the case where a user who wishes to be granted access to a specific website or application can choose between no advertisement at all in return for the payment of a specific fee or targeted advertisement based on her personal user data. In the latter case, Bijl submits that granting access to a customer's personal data could be considered consideration for the access or use of the software, if no access to the service is granted without access to or use of the customer's personal data. He concludes that because customers' personal data has a value for the businesses that accept this data in return for the use or access of their software, economic and commercial reality is that this should be treated as a barter transaction from an EU VAT perspective, even if determining the value of each supply (for the purposes of determining the taxable amount under the current EU VAT rules) may prove difficult.

Part Five: Indirect tax

Article 3(1)(a) of the Turnover Tax Act (*Wet op de omzetbelasting 1968*, "TTA") defines a 'supply of goods' as the transfer of the right to dispose of goods as owner.⁵⁷ Pursuant to article 3(7) TTA 'goods' are all tangible objects that can be controlled by humans as well as gas, electricity, heat, cold or similar objects. Article 15 VAT Directive⁵⁸ provides member states the possibility to extend the definition of the term tangible property to other items, some of which have been incorporated by the Dutch legislator in article 3(1) TTA. However, neither the VAT Directive nor the TTA define data as a tangible object or eventually as a good. Any big data transaction would therefore be considered a supply of services pursuant to article 24(1) VAT Directive and article 4 TTA, provided it is a taxable transaction, i.e. a supply for consideration within the territory of a member state by a taxable person acting as such (article 2(1)(c) VAT Directive and article 1 TTA).

Big data transactions may be telecommunications, broadcasting and electronic services to non-taxable persons (i.e. business-to-consumer supplies) to which specific rules apply throughout the EU for determining the place of supply (article 58 VAT Directive) and for registration, filing and payment (mini one-stop shop ("MOSS")) in articles 358 to 369k VAT Directive, which are implemented through Council Implementing Regulation (EU) No 282/2011.⁵⁹

⁵⁶ J.B.O. Bijl, The EU VAT treatment of vouchers in the context of promotional activities (FM nr. 157) (Wolters Kluwer 2019).

⁵⁷ Art. 3(1) TTA qualifies also other transactions as supply of goods. However, these are not relevant for the purposes of this report.

⁵⁸ Council Directive 2006/112/EC, OJ L 347, 11 December 2006.

⁵⁹ Council Implementing Regulation (EU) No 282/2011, OJ L 77, 23 March 2011.

Part Six: Tax accounting

6.1. Recognition of transactions

Article 3.25 ITA, which, by virtue of article 8 CITA, also applies to corporate taxpayers, provides that the annual business profit for Dutch tax purposes is computed according to the principle of sound business practice (*'goed koopmansgebruik'*) applied with consistency and independently from the expected outcome. This principle is not further defined in the law. It is an open norm that has been the subject of interpretation by the Supreme Court in an extensive amount of case law. Article 3.25 ITA does not refer to annual accounts. It is at the discretion of the taxpayer to choose a system of determination of the taxable profits, as long as it is in line with the principle of the sound business practice and the tax law. In this context, the Supreme Court has ruled that a system of computing the annual business profits could be in accordance with the principle of sound business practice, if it is based on business economics and it is in accordance with tax law, tax principles and the general design of the tax law and is commercially acceptable.⁶⁰ In practice, taxpayers often use the commercial accounts as the starting point for the determination of taxable income.

In the articles following article 3.25 ITA, the Dutch legislator introduced a limited number of specific rules as regards determination of profit (e.g. depreciation and amortisation of business assets, reinvestment reserve, special deductions).

For the purposes of attributing income and expenses to a certain tax year, the Supreme Court has interpreted the principle of sound business practices as comprising of the following key elements:

- (1) Principle of realism (*realiteitsbeginsel*): this is an overarching principle, which requires that annual profit must be determined in such a way that it gives a realistic impression of the taxable income of the enterprise. Unjustifiable shifts of profits over the years are not allowed. Annual profit must only be determined by events that are attributable to that year, while losses that have not been incurred cannot be realised.
- (2) Realisation principle (*realisatiebeginsel*): when realisation leads to a profit, both income and expenses are attributed to the year in which realisation takes place as revenue and cost respectively. Realisation of income generally takes place when the enterprise has completed its performance. One important exception to this rule is set out in article 3.29b ITA, which requires that income and expenses from work-in-progress are spread throughout the years of work, thus leading to recognition before actual realisation at the moment of the completion of the performance (i.e. gradual recognition).
- (3) Matching principle (*matchingbeginsel*): expenses need to be attributed to the year to which the connected income is attributed, unless there is insufficient connection between revenue and expense.
- (4) Prudence principle (*voorzichtigheidsbeginsel*): this principle requires a clear economic link with the tax year. Losses are recognised when they are probable.
- (5) Simplicity principle (*eenvoudsbeginsel*): a system is not required to be completely perfect but should be manageable.

⁶⁰ Supreme Court 10 July 2015, BNB 2015/180.

Relevance for big data transactions

Income from big data transactions is in principle realised at the moment the taxpayer has completed her performance. For instance, if a taxpayer has been requested to provide a one-time service of data processing for a client or a one-time access to data processing software, income from this assignment should be attributed to the year in which this assignment has been completed. The same applies in respect of expenses that the taxpayer has undertaken in order to complete this assignment. For instance, employment costs for data processing should in principle be attributed and deducted in the year the income is reported on the basis of the matching principle.

From the sound business practice principle it also follows that, if a taxpayer has concluded a long-term contract with a client, on the basis of which she needs to perform data processing activities or grant access to data processing software on a continuous basis, income from such assignment will not be attributed to the last year covered by contract, but equally throughout the duration of the contract. Expenses made in relation to this assignment will in principle also need to be attributed to the year to which the connected income is attributed.

6.2. Capitalization and amortization

As a result of the operation of the sound business practice and specific ITA provisions, whether costs should be directly expensed or capitalised and amortised needs to be established on a case-by-case basis. In principle, costs are deductible in the year that the costs are incurred. Costs should be capitalised if the related income is expected in future years on the basis of the matching principle. Advance payments of future costs cannot be immediately expensed but should be capitalised to the extent the amount relates to future years. Such capitalised expenses can be amortised over their lifetime.⁶¹

Research expenses should be expensed in the year in which they arise, unless they have sufficient characteristics of a fixed asset. Development costs could be capitalised when they result in an identifiable product to be exploited by the taxpayer. Capitalised expenses could potentially be regarded as a depreciable fixed asset. According to the Supreme Court and article 3.30(1) ITA, fixed assets are all assets, which are used in the conduct of business activities (i.e. entrepreneurial activities). In order to be depreciable, such assets should diminish in value and have a limited useful life. Regarding intangible assets as fixed assets, a distinction needs to be made between acquired and self-developed intangible assets. The amortisation base for acquired intangible assets is the (historical) acquisition price. To the extent that self-developed intangible assets have been created, development expenses may be capitalised, but only if future profits can be established “objectively”. The taxpayer may alternatively choose to immediately expense the development expenses on the basis of article 3.30(3) ITA. Fixed intangible assets can be amortised over their lifetime, taking into account the acquisition price or development expenses, the useful economic life and the residual value of the asset after that period.

⁶¹ Art. 3.30 ITA, which prescribes explicit rules for the treatment of expenses, does not apply on advance payments, as they are not considered a business asset (*bedrijfsmiddel*).

Relevance for big data transactions

Acquisition or self-development expenses relating to data processing software could under circumstances be considered a depreciable fixed asset for Dutch tax law purposes. If this software diminishes in value over time, it (and consequently the capitalised expenses) could be amortised over the software's lifetime. In the case of self-developed software, the taxpayer, however, also has the choice of deducting the development expenses in the year in which they incurred.

The treatment of the acquisition costs of data might differ depending on the facts and circumstances. For instance, a purchased dataset that can be used for more than one year needs to be capitalised and amortised over its lifetime. A data access fee paid on an annual basis would need to be annually expensed. On the contrary, an advance payment for a long-term access to data that is expected to be used for multiple years will have to be capitalised and amortised over the lifetime of the data.

Summary and conclusions

Norway does not have rules which are specific to data transactions. Until 2021, such rules have not been strictly required under Norwegian domestic taxation, as Norway generally treats income derived from data transactions in the same manner as income derived from other sources. Where it has been necessary to make such distinctions (e.g. in the context of an applicable double tax treaty giving rise to royalty WHT), Norway has mainly relied on the OECD Model Tax Convention and its Commentary in order to ascertain the applicability of such taxes.

In July 2021, new rules on WHT on royalty payments entered into effect, and the determination of royalty vs. other income will be of greater importance. However, since the WHT will only be applicable to payments made to related entities resident in a low tax jurisdiction, the application of the WHT is somewhat limited.

Further, Norway has not yet implemented any nexus threshold (digital PE or digital services tax) on digital transactions which do not have a physical connection to Norwegian taxable territory. On this topic, the Norwegian government is awaiting a unified solution on OECD/G20 or potentially EU level.

Transactions that involve structured data (use of databases or software) raise a number of potentially challenging tax questions. As a consequence of the new WHT rules that entered into force in 2021, the main focus of this report has been to determine when a data transaction may give rise to a royalty payment.

As a starting point, there is the distinction of making a copy of the database for internal use in the business of the acquirer, which should not be considered a licensing arrangement giving rise to a royalty payment. On the other hand, if the purchaser pays for the right to use the significant underlying copyright, this would be royalty subject to royalty WHT (even if the full copyright is not transferred).

For software distributors, the right to access a database and make a certain number of copies for distribution should not be considered a licensing arrangement (provided that the distributor does not have the right to reproduce the software).

However, where the database owner transfers the right to make essential parts of the database available to the public and/or to repeated and systematic make insignificant parts of the database available to the public (e.g. copies), then this would be considered a licensing arrangement for Norwegian tax purposes.

¹ International tax partner at EY Norway; graduated from University of Oslo in 1992 with the degree of *candidatus juris* and holds a licentiate degree in Law from the University of Oslo from 2000 on Taxation of Software.

² Master's degree in Law from the University of Oslo in 2017; associate attorney in CMS Kluge in Oslo, Norway.

Any payment made for the full ownership rights to the database should not be considered a royalty payment. However, this starting point gives rise to several grey areas, which are addressed in this report.

The utilization of structured data by the owner itself when providing services to another taxpayer, should not lead to the payment being considered a royalty. However, in practice, the line may be hard to draw in cases where a contract consists of several elements.

Under Norwegian tax law, the determination of the source of an income stream must be made based on the underlying economic reality. Any proforma arrangements would potentially be subject to the general anti-abuse rule.

The main nexus factors under Norwegian tax law are the tax residency rule, the domestic permanent establishment rules and the rules for taxation of foreigners. None of these rules provide taxation rights in Norway based solely on the digital economic presence of a foreign resident enterprise. Further, in order for Norway to impose royalty WHT on any enterprise, this payment must be attributable to a Norwegian tax resident enterprise, or a Norwegian permanent establishment of a foreign enterprise.

From a tax treaty perspective, Norway has entered into almost 100 double tax treaties. However, very few of these treaties provide Norway with a right to impose WHT on royalty payments. Thus, this further limits the application of the royalty WHT rules. Further, Norway will not be levying any WHT on payments made for “technical services”, in accordance with the OECD approach. However, Norway will be imposing a WHT on “industrial, commercial or scientific equipment” effective from October 2021.

The transfer pricing aspects in this report are limited to a few comments on the intercompany dealings which may take place in relation to data transactions. Norway generally follows the OECD transfer pricing guidelines, and an in-depth analysis is not included in the report.

Introduction: Legal background

This branch report refers to the general description of commercial law principles described in the general report. The below remarks will serve as a useful backdrop for the analysis of the Norwegian tax considerations to be made while discussing these issues.

Database

The database protection in the Norwegian Copyright Act of 15 June 2018, section 24, gives the database owner the following exclusive legal rights:

1. to copy essential parts of the database
2. to make essential parts of the database *available to the public*
3. the repeated and systematic copying of insignificant parts of the database (e.g. copies)
4. the repeated and systematic making insignificant parts of the database available to the public (e.g. copies).

Accordingly, from a private law perspective, a data transaction shall be considered a licensing arrangement (royalty) when the database owner grants the user one or several of the above rights in the underlying database rights.

The main question in this report is whether transfer of one or of all these rights for tax purposes will trigger a WHT on royalty.

Database rights last for 15 years. Each time a database is substantially modified, however, a new set of rights are created for that database. Database rights are created automatically, vested in the employers of the creators (when the action of creation was part of employment), and do not have to be registered to have effect. The Norwegian rule is based on EU rules, namely Directive 96/9/EC of 11 March 1996 on the legal protection of databases.

Copyright

Database rights are independent of copyright. Databases may be protected by copyright. But this presupposes that the selection, compilation and presentation of the content is the result of an independent, creative effort. Many databases are not. Data are selected according to clear and simple criteria. Copyright to databases will not be addressed in detail in this report.

Know-How

Know-how can be defined as special knowledge about practical skills and experience which makes it possible to produce a given product in the right way. There is no special law governing protection of know-how. The Norwegian Act on Marketing of 1 June 2009 would, however, give the owner (holder) of know-how certain rights. According to the law, the owner is protected against unjustified use of know-how by another person in his business, provided that the owner keeps the know-how secret.

Part One: Basic principles: Character, source and nexus

1.1. General overview

Norwegian tax law is mainly regulated under the Norwegian Tax Act ("NTA"). Any matters related to data transactions will be governed by the general rules and provisions in the NTA. Data transactions are not subject to any separate tax law or regulations under Norwegian tax law. The classifications must therefore follow the same rules and principles as any other transactions, based on private law, accounting treatment and substance over form rules.

The PE definitions in domestic law and tax treaties are also important when deciding whether Norway has the authority to tax economic activity reaching into Norwegian tax territory.

Norway has entered into almost 100 double tax treaties, which is in the higher end compared to other jurisdictions.

1.2. Character

1.2.1. General principles under Norwegian tax law

Historically, the classification of data has not been important for Norwegian tax purposes. The reason is that before 1 July 2021, Norway did not have domestic law allowing WHT on transfer of intangibles, technical services, etc. Income from sale or license of data has been treated as ordinary business income (taxable at 22% in 2022). This changed on 1 July 2021, as Norway introduced a 15% WHT on royalty payments in the NTA section 2-3. However, the WHT only applies to payments made to related companies/entities resident in low tax jurisdiction outside of the EEA/EU. Thus, the classification of data and possible WHT will in practice only apply to a limited number of intercompany transactions.

The Ministry did not want to include a definition of royalty or what constitutes “intellectual property rights” within the meaning of the Tax Act. However, the Ministry states that the definition included in article 12, paragraph 3, of the OECD Model Convention will form a starting point for rights that are covered. According to NTA sections 5-20 first paragraph, the Ministry has the authority to give guidance on the meaning of royalties and “intellectual property rights”. The documents to parliament state that the definition in article 12 provides a non-exhaustive indication of rights covered by the term, including copyright, patent, pattern or model, secret formula or method of manufacture, trademark or similar, and information on industrial, commercial or scientific experience (know-how).

This means that one potential source on how the Norwegian Tax Authorities intend to draw the line between what is considered services, royalties or transfer of property, may be found in the Norwegian government’s bill to parliament regarding the implementation of WHT on interest and royalty payments,³ and in the Commentaries to the OECD Model Convention.

In short, the transfer of collected, aggregated, structured or analyzed data, could be classified as follows under Norwegian domestic tax law:

1. Tangible property in the form of a copy. This will typically be the case for transfer of a copy of data protected by copyright law or database law. A copy of the data could be transferred on a physical medium or over the Internet. For Norwegian tax purposes the way data is transferred should not be decisive. The decisive aspect is whether the recipient gets a right to the underlying copyright, database right or know-how, and to commercially exploit this right, rather than just use the copy as such. The copy may be sold, leased out or licensed.
2. Intangible property or a right in an intangible property. This will typically be the case if copyright or database rights are transferred. The intangible property may be sold or licensed.
3. Service. This will be the case if the owner of the intangible property, typically software or database, provides a service using its own rights.

The same principle should apply to any data processing software or algorithms.

Since there is little administrative or court practice related to the characterization of data transactions, our report below will be based mainly on a summary of how we assume the

³ See Prop. 1L (2020-2021) ch. 6.

appropriate determinations will be made under Norwegian tax law, with reference to the OECD Model Tax Convention and its Commentary.

1.2.2. When is a big data transaction considered the licensing of intangible property?

Any payment for the use of or the right to use intangible property owned by another party should be considered a licensing arrangement under Norwegian tax law. In practice, Norway will follow the royalty definition in article 12 of the OECD Model Tax Convention.

As stated above, from a private law and legal perspective, a data transaction shall be considered a licensing arrangement (royalty) when the database owner grants the user a right to use partial rights or complete rights in the underlying database rights. This includes the following rights for the user; the right to:

1. copy essential parts of the database
2. make essential parts of the database available to the public
3. repeated and systematic copying of insignificant parts of the database (e.g. copies)
4. repeated and systematic making insignificant parts of the database available to the public (e.g. copies).

The question is whether the transfer of one or of all these rights for tax purposes will trigger a WHT on royalty.

In its bill to parliament the Ministry states that if access to an intellectual property right is necessary for the product to work, but where the user does not have other rights to use the intellectual property right, then the payment should not be considered a payment subject to withholding tax. However, if the taxpayer is given the right to use the intellectual property right in his business, at least part of the payment will be considered a payment for use, or the right to use, an intellectual property right covered by the proposal. Further, the Ministry states that the key assessment is whether the intellectual property right is made available to the user (subject to WHT), or whether the intellectual property right is part of a service that the owner performs himself (not subject to WHT).

No further clarifying guidance is given. However, since the Ministry refers to the OECD model Commentary to article 12 for guidance, this will in practice decide the Norwegian tax treatment, unless other regulations are given (which may be the case in the future).

The OECD Commentary to article 12 has detailed rules for the treatment of software. This also gives an important guidance for databases and data transactions since there is no reason to treat them differently. The rights to computer programs and databases are both regulated by the Norwegian copyright law, and the rights are similar. Accordingly, the tax treatment for software would as a main rule apply to a database.

The OECD Commentary states that the character of payments received in transactions involving the transfer of computer software depends on the nature of the rights that the transferee acquires under the particular arrangement regarding the use and exploitation of the program. The OECD further states that transfers of rights in relation to software occur in many different ways, ranging from the alienation of the entire rights in the copyright in a program to the sale of a product which is subject to restrictions on the use to which it is put.

The Commentary makes an important distinction between the transfer of a copy for internal use in the users own business (whether a sale or a license of a "program copy"), as opposed to transfer of partial rights or complete rights to the underlying copyright.

Transfer of a "copy" or copies for "internal use" do not represent a royalty. The reason

given is that the copyrights transferred to the user are limited to those necessary to enable the user to operate the program. This limited use includes limited rights to reproduce (copy) the program for internal purposes, copy to all enterprise users, etc. In other words, the copyright owner only transfers the right for the user to effectively operate the program by him. The OECD states that such use should be disregarded in analysing the character of the transaction for tax purposes. Payments in these types of transactions would not be considered royalty payments, but business income in accordance with article 7 of the Model Tax Convention.

The same should apply to a database. Where the database owner grants the user the right to copy essential parts of the database for his internal purpose and/or repeated and systematic copying of insignificant parts of the base (e.g. copies) for internal purposes, this would not be royalty. This would also include cases where the users are allowed to copy minor parts of the base or do random search in the database, simply since such use is not covered by the database right.

On the other hand, if the “user” pays for the right to use the significant underlying copyright, this would be royalty subject to royalty WHT. The OECD states that payments made for the acquisition of partial rights in the copyright (without the transferor fully alienating the copyright rights) will represent a royalty where the consideration is for granting of rights to use the program in a manner that would, without such license, constitute an infringement of copyright. Examples of such arrangements include licenses to reproduce and distribute to the public software incorporating the copyrighted program, or to modify and publicly display the program. In these circumstances, the payments are made for the right to use the copyright in the program (i.e. to exploit the rights that would otherwise be the sole prerogative of the copyright holder). The essential point here is that the user has got the right to commercially exploit the copyright towards third parties.

Accordingly, where the database owner grants the user the right to make essential parts of the database available to the public and/or repeated and systematic making insignificant parts of the base available to the public (e.g. copies), then this would be considered a royalty for tax purposes. An exception will be for distributors only re-selling copies of data to the user, see below.

Further, the OECD makes an important distinction for distributors of software. In a distributor case, the software copyright holder grants to the distributor the right to distribute copies of the program without the right to reproduce that program. In these transactions, the rights acquired in relation to the copyright are limited to those necessary for the distributor (the commercial intermediary) to distribute copies of the software program. In such transactions, distributors are paying only for the acquisition of the software copies and not to exploit any right in the software copyrights. Thus, in a transaction where a distributor makes payments to acquire and distribute software copies (without the right to reproduce the software), the OECD states that the rights in relation to these acts of distribution should be disregarded in analysing the character of the transaction for tax purposes.

Payments in these types of transactions would not be considered royalties, but business profits in accordance with article 7. Further, the OECD states that this would be the case regardless of whether the copies being distributed are delivered on tangible media or are distributed electronically (without the distributor having the right to reproduce the software), or whether the software is subject to minor customisation for the purposes of its installation. This view should also apply to transfer of data from the database owner to an intermediary, who re-sells the data (copies).

Complex issues and difficult distinctions may arise where the user accesses data from

the database owner, and then directly or indirectly copies part of the database in its delivery to its customers. If the user applies the data obtained from the database owner to make his own delivery, product etc. to his customer, this use by the user will likely not be subject to WHT.

However, if the user grants the customer direct access to the database owned by the database owner, this use by the user could be subject to royalty WHT as the user grants its customer the right to access the database and copy from it. It is one of the “core database rights”. It is, however, not clear. As mentioned, the right for the user to re-sell a copy of the software should be disregarded in the same manner as copying for internal use (e.g. site license copying etc.). Since downloading is specifically mentioned as a way of transferring the copy only (which should be disregarded), there is an argument that granting the customer the right for himself to copy from the database is not subject to royalty WHT.

We believe the distinction between copying for re-sale (transfer of copies) and transfer of copyright/database rights (potentially resulting in royalty WHT), must be based on whether the user acquires a right to commercially exploit the copyright/database by himself, typically to reproduce and distribute copies to the public software incorporating the copyrighted program, or to modify and publicly display the program.

We believe that the agreement and the form of payment between the database owner and the user may give some guidance. If the payment to the database owner reflects how many of the users’ customers have accessed the database, this is an argument in favor of royalty treatment. In this case the user pays the database owner for the right to commercially exploit the copyright towards third parties (its customers) and the user pays the database owner a fair share for using this database right. If, however, the payment does not reflect the fact that the user puts the data at use for the public (its customers), then the parties accept that the database owner only transfers the right for the user to effectively operate the program by himself. In other words, the user does not exploit the database right towards third parties and the public.

1.2.2.1. Licensing income versus transfer of property

In its bill to parliament in 2020, the Ministry of Finance very briefly addresses the distinction between licensing income versus the transfer of property. The distinction is whether a payment concerns the use or right to use an intellectual property right, or a transfer of the entire right (sale). The general principles for determining whether there is a transfer of property should also apply here.

The Commentary to the OECD Model Tax Convention has some detailed rules on this, and these will be of guidance.

Where consideration is paid for the transfer of the full ownership of the rights in the database, the payment will not represent a license that triggers royalty. As explained in the Commentary to the OECD Model Tax Convention, difficulties can arise where there is a transfer of rights involving:

- exclusive right of use of the copyright during a specific period or in a limited geographical area;
- additional consideration related to usage;
- consideration in the form of a substantial lump sum payment.

The OECD states that if the payment is in consideration for the transfer of rights that constitutes a distinct and specific property (which is more likely in the case of geographically limited than time limited rights), such payments are likely to be business profits within article 7 or a capital gain within article 13, and not royalties within article 12. Since the ownership of rights has been alienated, the consideration cannot be for the use of the rights. Further, the essential character of the transaction as an alienation cannot be altered by the form of the consideration, the payment of the consideration in instalments or by the fact that the payments are related to a contingency.

If the user gets access to a database and buys a copy of that database, this shall not be regarded as a licensing arrangement, and should thus be considered as payment for the transfer of a copy.

1.2.2.2. Licensing income versus service provision

The Ministry stated in the bill to parliament that when intangible property is used by the owner itself in order to provide services to a customer, this shall be regarded as a service and not a royalty or a capital gain/sale of property. The Commentary to article 12 of the OECD Model Tax Convention relating to the distinction between provision of know-how, rather than the provision of services, would give guidance.

In short, contracts for the supply of know-how concern secret and undivulged information that already exists or concern the supply of that type of information after its development or creation and include specific provisions concerning the confidentiality of that information. In a typical know-how contract, the owner of know-how grants the customer the right to use the know-how for the customer's own account, with a requirement that the know-how remains unrevealed to the public (to be kept secret).

In contracts for the provision of services, the owner of know-how performs services based on his know-how, special skill and expertise, but she does not transfer such special knowledge, skill or expertise to the customers.

If the service is comprised of several elements ("mixed contracts") and certain elements may be considered a license of database right, then we believe that the Norwegian tax authorities may seek to deem a portion of the payment as royalties and impose royalty WHT on that element of the contract, provided all other conditions are met.

The Ministry stated in the bill to parliament on the implementation of royalty withholding tax in 2021 that this apportionment method shall apply to so called "time charter" agreements. The taxpayer has to deem which part of the payment is leasing of equipment subject to royalty withholding tax, and which part is a service, free of withholding tax. If, however, one part of what is being provided constitutes by far the principal element of the contract and the other parts stipulated therein are only of an ancillary and largely unimportant character, then the treatment applicable to the principal part should generally be applied to the whole amount of the consideration. This follows from the Commentary to article 12 of the OECD Model Tax Convention.

Royalty and service (business) income are treated equally under Norwegian tax law and will be taxed according to the ordinary Norwegian tax rules of business income recognition.⁴

⁴ Naas and others (2017), p. 844.

1.3. Source

Under Norwegian tax law, the determination of the source of an income stream must be based on an interpretation of the specific provision under the NTA. This determination under Norwegian tax law is usually referred to as the attribution of income and expenses. The attribution shall be based on the genuine economic reality,⁵ where the key question is which taxpayer has actually suffered the expense and enjoyed the benefit of the goods or services paid for.

Under licensing arrangements, the owner of the IP should be considered the rightful recipient for tax purposes. However, we observe that discussions surrounding the actual economic ownership and value increasing/maintaining functions may be taken to allocate a higher portion of licensing income to other jurisdictions, especially where the IP owner is tax resident in a low tax jurisdiction. This will not be further discussed.

For the purposes of imposing WHT on royalties, the royalty will be considered to be in Norway when the taxpayer which is attributed the expense is tax resident in Norway, or if the expense must be attributed to a PE situated in Norway.⁶ Here, attribution should follow the general rules under Norwegian tax law as described above.

Where the data transaction must be considered a service and the services are performed by employed personnel, emphasis would be put on which taxpayer is considered the economic employer for tax purposes.

In case there is a discrepancy between which taxpayer has reported the expense/income for tax purposes and the genuine economic reality, then the general anti-avoidance rule under Norwegian tax law (NTA section 13-2) may be applicable to the effect that the expense could be denied or income reattributed for tax purposes.

1.4. Nexus

1.4.1. Introduction

Norway does not have any special nexus rule that applies to data transactions or digital economic presence.

The most important nexus factors in Norway are the domestic tax residency rules in NTA section 2-2 and for foreign tax resident taxpayers, nexus is based on the domestic “permanent establishment” rules in NTA section 2-3.

1.4.2. The tax residency rule

The Norwegian tax residency rule in the NTA section 2-2 decides that any company registered for company law purposes in Norway shall be considered tax resident in Norway. Further, any company which has its place of effective management in Norway shall be considered tax resident in Norway, even if the company is registered outside Norway. The place of

⁵ See Rt-2015-1260 (the Herkules ruling), para. 50.

⁶ See public hearing on the implementation of a withholding tax on interest and royalty payments, item 3.5.6.

effective management-test (“the PoEM test”) is meant to be aligned with the PoEM test found in most tax treaties. Where a tax treaty decides that the tax residency lies outside Norway, the treaty will prevail. In most cases, the tax residency of a company will be the place in which the place of effective management of the company is located.

There is no mention in Norwegian legal sources that data transactions shall play a part in the determination on where the place of effective management shall be located. One could argue that data servers hosting software which facilitates the decision making of key personnel in a company, may be of key importance in certain businesses (e.g. automated functions used by banks, investment firms etc.). This could provide an argument that the location of such server should play a role in the determination of the PoEM test. However, no such consideration can be traced in Norwegian legal sources.

1.4.3. *The domestic permanent establishment rules and the rules for taxation of foreigners*

NTA section 2-3 paragraph 1 letter b decides that an enterprise is taxable in Norway on “business activities in which [...] it is engaged or participates, and which take place in this country or are managed from this country”. This is the ordinary domestic PE rule under Norwegian tax law. In case the foreign taxpayer is resident in a jurisdiction Norway has entered into a DTT with and there is a conflict between the domestic PE rules and the treaty PE definition, the treaty PE definition shall prevail.

The threshold under NTA section 2-3 paragraph 1 letter b is low. Any business presence by a foreign enterprise in Norway for even a few days may be enough for that enterprise to be considered taxable in Norway under the provision. However, it is widely accepted that the Norwegian section 2-3 paragraph 1 letter b does not provide that a PE can be considered to exist only by the existence of a digital economic presence (e.g. by selling goods into Norway via an internet page or selling online advertising space to Norwegian business). It is a minimum requirement that there is at least some physical manifestation of economic presence of a foreign enterprise before the domestic PE threshold is met. In principle, where data is stored on servers which are located within Norway, this could result in the domestic PE criteria to be met provided the owner has access to the server.

The lack of administrative and court practice concerning this topic makes the decisive factors for creating a server PE under Norwegian tax law somewhat uncertain. However, guidance may be found in the Commentary to article 5 of the OECD Model Tax Convention, including the reference made therein to telecommunications and satellites.

This means that unless a big data transaction is attributed to a foreign enterprise's Norwegian PE triggered by physical presence, it cannot be taxed in Norway under the domestic PE definition in NTA section 2-3 paragraph 1 letter b.

In any case, a foreign taxpayer that “owns or controls” tangible property in Norway will be considered taxable in Norway on the related income under Norwegian domestic law under NTA section 2-3 paragraph 1 letter a. Thus, servers located in Norway will as a starting point be taxable in Norway. It is an open question whether data that are stored remotely on that server are included.

However, this provision does not apply to a foreign taxpayer owning IP which is considered Norwegian due to being registered with Norwegian registries for trademarks or patents etc. The same rule should apply to a database protected under copyright law (database protection or copyright).

However, if the IP forms part of the taxable business activities of a foreigner taking place

in Norway, then that enterprise will be taxable in Norway under section 2-3 paragraph 1 letter b as described above.

For completeness' sake, we emphasize that any tax liability in Norway under NTA section 2-3 may be restricted by an applicable double tax treaty.

1.4.4. *Royalty WHT*

The Ministry of Finance's proposal to implement WHT on royalties indicates that the relevant nexus criterion for the assessment of whether a payment shall be subject to WHT or not, is whether the payer is tax resident in Norway or has a PE in Norway.⁷ Thus, any data transaction between two foreign taxpayers (not having its income attributed to a Norwegian PE) should fall outside the scope of the Norwegian royalty WHT, even when the payment is made for having access to data derived from Norwegian users (e.g. data obtained by a foreign taxpayer by tracking and storing internet browsing patterns/behavior from Norwegian consumers).

1.4.5. *Digital tax*

The Norwegian government is aware that value derived from selling data related to Norwegian consumers' use of digital tools/the internet is largely left untaxed in Norway, and this has been subject of discussion in the Norwegian parliament.⁸ The position of the Norwegian government appears to be to await the ongoing work at EU and OECD/G20 level.

Part Two: Application of treaty principles

2.1. General overview

The relevant treaty provision is article 12 on royalty payments. Norway has not implemented any special provisions to tackle digital/data transactions in treaties. In some treaties Norway has accepted an article on WHT on technical services that may apply to data transactions.

Since Norway has not imposed WHT on royalties prior to 2021, Norway's tax policy has been to eliminate or reduce the WHT on royalties in treaty negotiations. As a result, only about 50 of Norway's 95 income tax treaties provide a right for Norway to tax royalty payments. It is expected that in future negotiations Norway will include WHT in its tax treaties.

Since Norway has not applied WHT on royalties, there is little guidance of what is "royalty" and what is not. However, since Norway only allows tax credit for foreign WHT paid in accordance with the tax treaty, the definition of royalties has some relevance in Norway.

Norway has traditionally followed the rules and interpretation of the OECD Model Tax Convention and its Commentaries, except for a few reservations and observations.

⁷ See the Ministry of Finance's public hearing on WHT on interest and royalty payments, item 3.5.6.

⁸ See Minutes of case reference number 7 in the meeting in the Norwegian parliament on 14 May 2018.

2.2. Detailed comments

2.2.1 *Royalties*

2.2.1.1 *Introduction*

As mentioned above, Norway implemented WHT on royalties with effect from 1 July 2021. This means that an increased amount of data transactions *prima facie* will now be subject to taxation in Norway. However, since the WHT is limited to royalties paid to a related party resident in low tax countries (effective tax lower than 2/3 of the Norwegian tax of 22%), the practical impact will be quite limited. If you also consider that there is a zero WHT rate under several treaties, the practical impact will be even less. Accordingly, the withholding tax on royalties will in practice only apply to a few intercompany transactions.

As explained above under general principles under Norwegian tax law, Norway will follow the OECD Model Tax Convention when applying the royalty rule on databases. We refer to this section for detail.

2.2.1.2. *Fees for “technical services”*

Norway does not levy any WHT on fees for “technical services” as such. From 1 July 2021 Norway levies WHT on “royalties” only.

Accordingly, the question is whether “royalty” will also cover “technical services” under the definition of the term under Norwegian tax law. As stated in the bill to parliament, Norway will in practice follow the royalty definition of article 12 of the OECD Model Tax Convention, including whether know-how is provision of services or “know-how” (royalty). The main view of the OECD and Norway is that “technical services” as such are not “royalty” subject to WHT (unless it could be a provision of know-how).

Norway has few tax treaties with developing countries that include the right to levy WHT on “technical services”. However, Norway needs to have the domestic right to levy WHT on such services. The reporter’s expectation is that Norway will follow the OECD definition and not levy WHT on “technical services” even if the tax treaty allows WHT.

Norwegian taxpayers will be able to obtain a tax credit in Norway for WHT paid in other states if the WHT is levied in accordance with a tax treaty (and subject to some other conditions and limitations). Thus, Norway will allow credit for a WHT on “technical services” paid in a different country under an article in a tax treaty allowing WHT on technical services.

The question is whether Norway will give credit if the other country has levied WHT on “technical services” based on the regular royalty definition, including “know-how” and the right to use “information concerning industrial, commercial or scientific experience”. This is a complex issue and subject to several disputes between taxpayers and the tax office. In several cases the Norwegian tax offices have denied credit on this basis, thus resulting in a double taxation for the taxpayer.

The first issue is whether Norway is obligated to accept the interpretation made by the source state under paragraph 2 of article 3. The provision states in our context that any term not defined in the tax treaty shall, unless the context otherwise requires, have the meaning that it has at that time under the law of the source state for the purposes of the taxes to which the Agreement applies.

Second, the provision states that any meaning under the applicable tax laws of the source state shall prevail over a meaning given to the term under other laws of that state (e.g. private law). Another issue is whether the Commentaries of the OECD shall prevail and override domestic law if the Commentaries indicate that the payment should not be for the right to use “information concerning industrial, commercial or scientific experience”.

A third issue is how much weight should be put on the Commentaries if they are made after the signing of the tax treaty. A fourth issue is whether a non-OECD country is bound in the same manner to the OECD understanding as is the case with an OECD country. A fifth issue is how to practically solve a double taxation situation without having to escalate all cases to mutual agreement procedure.

The reporters are of the view that in most cases Norway should be obliged to accept the interpretation that the source state gives due to paragraph 2 of article 3 for the purposes of granting tax credits for WHT on technical services paid abroad. It is outside the scope of the report to address these issues in further detail.

2.2.1.3. Industrial, commercial or scientific equipment

Historically, Norway has never levied WHT on lease payments, i.e. the right to use Industrial, commercial or scientific equipment.

Effective October 2021, Norway introduced a 15% WHT on payments (leasing) on certain tangible assets. The WHT only applies to assets included in the NTA section 14-41 letter e and f. That is: e) “ships, vessels, drilling rigs and similar items” and f) aircraft and helicopters. Thus, we assume this in general will not affect transfer of data.

2.2.2. Corporate income taxation

Norway does not have any special taxation provisions with respect to the taxation of royalty income. All royalty income received by a Norwegian company will be subject to the ordinary corporate income tax on net taxable income (22 % in 2022).

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

There are no general or specific regulations in Norway that address how to price intercompany transfer of data. Consequently, we would have to fall back on the general interpretation of the arm's length principle and the guidelines provided by the OECD.

If a company would not share data with a third party without compensation, clearly also intercompany transfer or use of data would have to be compensated at arm's length. More interesting is the situation where a company would never share the data with third parties, even for consideration, but is making the data available within the group. Clearly, there is no directly comparable data or pricing available in such a situation. Most likely it is necessary to fall back on an analysis of the five comparability factors, and especially to try to understand the “DEMPE functions” in relation to the data, how this is organized

within the group, who is contributing, what is the application and use of the data, and the potential benefits of using the data. The internal use of data can be organized, used and exploited in various ways.

Accordingly, we would expect to see arrangements that range from bartering arrangements to cost contribution arrangements with shared ownership, to licensing arrangements with one owner of the data, with many internal users. For the latter we can expect that some companies will charge a license fee, while others may provide the data for free.

What is arm's length will be very fact specific. We can assume that available data on similar transactions between third parties is limited, if non-existing. At the end of the day, the parties to the transaction, need to demonstrate and document why their current arrangement related to the use of data is structured, and commercially rational for both parties, under the current facts and circumstances.

If we look at the example of sharing of data within a group, this can be organized in many ways as described above and will most likely depend on the underlying nature of the data, how it is collected, the use and application of the data, and the perceived benefit of the data to all users. Typically, many companies, by sharing data within the group, will perceive that the benefit of accessing global data from all other group companies outweighs the value of their own contribution of data, and as such see that it is commercially rational to share the data for free as long as they receive access to the global data. Whether this perception is correct, will have to be considered from situation to situation, as it will be very fact specific.

It is also easy to see that you can have situations where you can organize the ownership of data in one or a couple of legal entities, for gathering, processing and analytics, and where processed data or analytics are provided to group entities. That use of the data needs to be compensated.

However, the compensation will depend on how the use is structured within the group. It could for example be structured as a service, rather than a license. It could be an arrangement where you pay per use, or as a general subscription to the full portfolio of data and analytics. Consequently, it is not possible to give any general guidance beyond that the arrangement needs to be commercially rational for all parties involved.

Part Four: Special regimes

4.1. General overview

As has been mentioned above, Norway currently does not have any special regimes which apply specifically to data transactions. Certain elements have been discussed by relevant legislative parties, and this will be briefly discussed below.

4.2. DST

Norway currently has not proposed to implement a digital services tax under its domestic tax law. However, this measure has been mentioned by members of the Norwegian

parliament when discussing the subject of a “google tax” in 2018.⁹ The response of the Norwegian government has been that it is monitoring the work being carried out at OECD/G20 and EU level and will await unified and consensus-based measures taken by these organizations.

It cannot be ruled out that Norway will seek to implement a digital services tax during the coming years, especially in the event the work at OECD/G20 or EU level does not result in any concrete measures to tackle the issues related to the taxation of highly digitalized business models. It is still our view that Norway will have patience and await the proposed measures which are to be provided at OECD/G20 level during 2021 and 2022.

It should also be observed that the fiscal incentives enacted in Norway to counter the negative effects of the Covid-19 pandemic on domestic businesses, may amplify the need to implement taxation rights to digital transactions even in the short term, in order to cover the vast public spending caused by the global pandemic. However, to this date no mention of this has been made by the Norwegian authorities.

4.3. Incentives

Entities that are taxed in Norway may be eligible for a research and development (“R&D”) credit tax relief related to research and development activities through the “Skattefunn” arrangement. This arrangement may include the development of e.g. big data analytics tools or similar but is not specifically targeted at such activities.

The R&D credit is granted to resident taxpayers and to non-resident taxpayers that are liable to tax in Norway. With effect from 1 January 2020, the credit is given at the rate of 19% of relevant expenditure up to NOK 25 million. To qualify, the research must be approved by the Research Council of Norway. The company should send an application before 1 September in the income year it applies R&D for, in order to receive an answer before the year end. The company has to document the R&D the following year.

The credit will reduce the payable tax. If there is no payable tax, the excess tax credits are repaid to qualifying companies in cash. The credit does not exclude deductions for the same expenses, either by depreciation or directly in the year in which they are incurred.

As a Covid-19 stimulus, there is a new R&D scheme similar to Skattefunn. The requirements are not fully clear but it is intended to be more liberal than Skattefunn. There is no specific application date.

The different incentives offered by Innovation Norway may be found here: <https://www.innovasjon Norge.no/en/start-page/>

Norwegian companies may also apply for EU grants since Norway is a member of the EEA agreement between EFTA and EU.

Part Five: Indirect tax

Data transactions would be regulated under the ordinary VAT law in Norway, being the Norwegian Value Added Tax Act (NVATA). As far as the reporters are aware, there are no

⁹ See Minutes of case reference number 7 in the meeting of the Norwegian parliament on 14 May 2018.

areas of material uncertainty specifically related to the data transactions. Data transactions will be broadly considered remotely deliverable electronic services for Norwegian VAT purposes.

The provision of such services, be it transfer of ownership of data or the granting of access to structured data, should be subject to VAT in Norway, provided that the transaction forms part of a business activity which is VAT-liable. This will apply to most digital business models which regularly engage in data transactions. Notable relevant exceptions include services that qualify as educational activities or financial services.

Such services will generally be subject to VAT in Norway based on the following principles:

- Services provided between two Norwegian tax resident entities: The transferor will invoice the transferee including VAT.
- Services provided by a foreign enterprise to a Norwegian tax resident business enterprise: The transferor will invoice the transferee excluding VAT, and the Norwegian business enterprise will calculate and report VAT on a reverse charge basis.
- Services provided from a Norwegian enterprise to a foreign enterprise: No Norwegian VAT applicable (but VAT may be applicable in the resident state of the foreign enterprise).
- Services provided by a foreign business enterprise to Norwegian consumers may require the foreign enterprise to register for VAT purposes in Norway and report VAT on Norwegian sales.

Part Six: Tax accounting

6.1. Recognition of transactions

6.1.1. *Taxable income recognition for data transactions*

Under Norwegian tax law, an income stream becomes subject to tax if it relates to the business activities, capital or labor. As mentioned above, data transactions may fall into both the business activities and the capital category.

The fundamental principles of income recognition under Norwegian tax law decide that an income stream is taxable on the time it is “earned”. In short, this means that when one party has performed its duties under a contractual arrangement and thus has a legitimate and unconditional claim of payment under the relevant contractual arrangement, then that income stream is taxable. A disposal of an asset is considered to take place when the disposer is considered to have given up its economic interest in the asset, i.e. they no longer may receive any gain or loss attributed to that asset.

For big data transactions this entails that on-going income, e.g. from license arrangements, is usually considered earned when payment is received in accordance with the terms of the licensing agreement. The transfer of the legal ownership of a database (and related algorithms) is considered taxable when the seller no longer has the rights to any beneficial interest arising from said database.

6.2. Capitalization and amortization

The main rule under Norwegian tax law is that expenses incurred in connection with taxable business, shall be deductible for tax purposes, see NTA section 6-1. NTA section 6-10 decides that expenses related to the acquisition of fixed business assets which value is reduced over time due to wear and tear, shall be capitalized for tax purposes and may be amortized over a certain number of years.

Deduction, capitalization and amortization of expense to collect, maintain and use data sets depend on the type of asset, e.g. whether it is tangible or intangible, whether it is R&D or not.

The cost of acquisition of a tangible asset with an economic lifespan exceeding three years and with a value exceeding NOK 15,000 (approximately USD 1,700), is to be capitalized. According to the Skatte-ABC 2020 (Norwegian tax administration handbook) and long-standing practice, standard software is treated as tangible property, while customized software is considered intangible property. We assume that the same distinction will apply to the purchase of a database comprised of big data material as well as related processing algorithms must be treated as software. This author is of another view, namely that the distinction should not be based on whether the software is standard or customized, but whether intangible rights are transferred to the user (using the same distinction as for royalty).

The handbook states that standard software normally will have an economic lifespan of more than three years. It must be written off according to the relevant class of depreciation. Software and database considered an “office machine” are to be depreciated at a rate of 30 % a year; instruments, inventory and machines other than office machines at a rate of 20 %, both under a declining balance method.

The cost of acquisition of intangible assets must be capitalized according to section 14-4(6) of the NTA if it is considered a substantial and durable asset. The Tax Act does not give any guidance as to when an intangible asset shall be considered “substantial and durable”.

According to the Skatte-ABC 2020, the purchase of intangible assets in the form of *limited* duration rights (for example patents, copyrights, time-limited license agreements, time-limited rent agreements or a time-limited government permission) shall be capitalized if the assets retain value beyond 31 December in the income year when the asset is purchased. In our view, this should also include the purchase of a database together with the database rights.

However, in a letter of 30 May 2005 the Ministry of Finance has stated that a three-year requirement shall apply for intangible assets resulting from research and development. The same view is taken by the Supreme Court in the Lilleborg ruling.¹⁰ In our opinion there are good reasons to apply the three-year limit on intangible assets as well, including a database. Whether the asset is self-developed or purchased should not alter the depreciation. The Skatte-ABC 2020 further states that the limit of NOK 15,000 at which capitalization is required does not apply to intangible assets. If so, the taxpayer can expense the asset if the purchase value of the asset is below NOK 15,000, even if the economic life lasts beyond three years subsequent to the date of purchase.

Limited duration rights (ref above) shall be depreciated over the “legal lifespan” after the straight-line method (if capitalized). Databases should be depreciated over 15 years.

¹⁰ See Rt-2015-367.

However, if the economic life is clearly shorter than its “legal lifespan”, it is depreciated over the period of its expected useful life.

The cost of intangible assets in the form of *unlimited* duration rights can in principle not be depreciated according to the Skatte-ABC 2020. An example may be trademarks. The taxpayer is nevertheless entitled to depreciation if she can prove that the asset has an obvious decline in value in relation to the cost price, see NTA section 6-10 third paragraph.

Purchased goodwill must be capitalized and depreciated based on the balance-sheet method (declining method) at a rate of 20 % a year, according to section 14-43(1) letter b of the NTA.

If an intangible asset is sold, the net gain or loss would be included in a separate gains and losses account. At least 20% of the capital gain/loss will have to be reported in the year of disposal on a declining balance, thus in effect taxing gains over seven to eight years.

R&D cost follows the special rule in NTA section 6-25 concerning R&D costs. R&D costs attached to a concrete project that may result in a fixed (tangible or intangible) asset, must be capitalized as part of the historic cost of that asset. Other R&D costs must be expensed for tax purposes. We assume that development and building of a database may qualify as R&D, but normally not the collection of data when the database is up and running.

In a letter from the Ministry of Finance dated 30 May 2004, R&D costs should be capitalized when (at that date) it is more likely than not that the R&D will result in an asset with an economic lifespan which is longer than three years. The letter may indicate that the capitalization only kicks in when there is a very high probability for success, due to the Ministry referring to the Supreme court in the Forland ruling, but this is likely not current practice.¹¹

The “probability assessment” must be performed on a qualified basis, and all significant prerequisites or criteria must be met, i.e. technical, commercial and financial prerequisites for completing the project. This refers basically to the same criteria applied for accounting purposes (IFRS). Some complex issues arise.

Databases will typically be updated constantly, new data and new functions added, etc. The question is how such expenses shall be treated for tax purposes. The general rule under Norwegian tax law is that ordinary maintenance bringing the assets to the same standard may be expensed directly (same year), but that changes in and value-adding improvements to the fixed asset must be capitalized on the asset.

For software assets, the Ministry of Finance has stated in a letter of 26 October 2011 that correcting design flaws in the code and general updates of the layout and compatibility of the software to get it “up to date” and current standard, shall be considered maintenance expenses. The Ministry did not follow the view of the tax office that software with such maintenance never decreases in value, and as such cannot be depreciated. However, when new functions are added, this shall be considered value-adding improvements which are capitalized for tax purposes.

For databases comprised of big data material, the distinction is in our view less clear than in the instance of developed software. The constant gathering of new data will *prima facie* not bring any new functions to the asset. However, the increasing amount of information that is gathered, stored and processed will necessarily also increase the value of the asset. Based on the letter from the Ministry of 2011, we believe such cost will be treated as deductible maintenance, and that the remaining cost price will be depreciated (over 15

¹¹ See Rt-1993-1012, p. 1012.

years). Capitalized improvements should be activated and depreciated over 15 years on a straight line basis as a main rule, or shorter if the taxpayer can prove a shorter economic lifespan of the database.

Part Seven: Other

The reporters find that there are no other areas under Norwegian tax law which are required to be addressed under this item.

Part 8: Reference case studies

8.1. Data Brokers / Information Resellers

8.1.1. *Character of payments*

8.1.1.1. *Payment by Broker Co to Website Co*

The payment made from Broker Co to Website Co would be a purchase of data. Any gain on the sale would be recognized as taxable income for Website Co and the expense would be allowed for Broker Co. (subject to depreciation). No WHT should be applicable.

The question is how costs incurred while developing databases are treated for tax purposes for Broker Co.

The cost incurred to develop the database and collect data will be capitalized as an intangible asset. Since the database protection lasts for 15 years, the database is a time limited intangible asset. The capitalized cost price will be amortized on a straight-line basis over 15 years, or shorter if the taxpayer can prove a shorter economic lifespan of the database.

Since the database will be constantly updated with new data, the question is how expenses related to updates and maintenance shall be treated for tax purposes.

Based on the letter from the Ministry of Finance of 26 October 2011 regarding software (ref the analysis above), we assume such cost will be treated as deductible maintenance, and that the remaining cost price will be depreciated (over 15 years).

8.1.1.2. *Payment by Customer to Broker Co*

The payment by the customer to Broker Co is payment for sale of a copy of processed data. Thus, this should under Norwegian tax law not be considered as a payment for the use of intangible property triggering WHT, as explained below. Note, Norway would only levy WHT if the customer is a related party to Broker Co, and Broker Co is a resident in a low tax jurisdiction (less than 2/3 of the effective tax rate in Norway).

The Broker Co (the database owner) grants its customer (resident in Norway) the right to copy parts of the database and / or buy copies of the database for customers' own use. The customer does not get any right to re-sell copies to its customer or re-sell the right for

its customer to access the database. Thus, the payment from customers to Broker Co should clearly not be characterized as a royalty payment under Norwegian law.

This is also directly supported in the proposal to parliament. The Ministry states that if access to an intellectual property right is necessary for the product to work, but where the user does not have other rights to use the intellectual property right, then the payment should not be considered a payment subject to withholding tax.

The payment from Broker Co to Website Co is purchase of data (i.e. “raw data”) and should clearly not be classified as royalty triggering WHT under Norwegian law.

8.1.2. *Source*

In general, it is irrelevant for Norwegian tax purposes to decide where the source is. The main question is whether the payment triggers a Norwegian royalty WHT or not. In this case no WHT would likely be due on the payment from a Norwegian Broker or customer. However, based on the fundamental principles referred to above, we hold the view that the source will be considered the place of business of the respective companies paying for the data, and not the location of the data objects.

8.1.3. *Nexus*

Under Norwegian tax law, none of the operations of the involved parties would be able to create a Norwegian PE. If the customer is resident in Norway, the payment could be subject to Norwegian WHT on royalties.

8.1.4. *Transfer pricing*

There are no general or specific regulations in Norway that address how to price intercompany transfer of data. Consequently, Norway would follow the general interpretation of the arm's length principle and the guidelines provided by the OECD.

The assessment for transfer pricing will be entirely fact specific and will largely depend upon the nature of the data, the application of the data and the commercial benefit of the data.

We refer to the general outline described above.

8.2. **Data Feeds**

8.2.1. *Character*

As opposed to in the data broker case, Information Site Co receives the data feed from Animal Data Co and is entitled to display the information to all viewers on its website. Assuming Information Site Co displays substantial parts of the database owned by Animal Data Co or displays copies of data in a systematic and repeated way, Information Site Co uses one or two of the main “commercial” database rights. This is an argument in favor of “royalty” since it is payment for the use of an intangible right. Even if the users do not

pay Information Site Co for the data, we assume this will not alter the classification of the transaction between Information Site Co and Animal Data Co. However, the payment to Animal Data Co (database owner) seems to be a fixed monthly fee, and if so, it does not reflect how many of Information Site Co's users access the database. This is an argument in favor of the view that Animal Data Co only transfers the right for Information Site Co to effectively operate the program, and not to exploit the database right towards third parties and the public. Since Information Site Co is not a distributor for Animal Data Co, we assume that the "distributor" exception discussed in the OECD Model Commentary will not apply. Based on this, we assume this will be classified as a royalty.

Norway would only levy WHT if Information Site Co and Animal Data Co are related parties, and when Animal Data Co is a resident in a low tax jurisdiction (being subject to a tax rate less than 2/3 of the effective tax rate in Norway).

In the alternative fact scenario, Animal Data Co does not charge Information Site Co a fee for the data feed, but it requires Information Site Co to prominently indicate on its website that Animal Data Co is the source of the information and to include a link to Animal Data Co's website. Since Information Site Co does not pay any fee to Animal Data Co, there cannot be any WHT. Instead, the users may voluntarily pay (donate) a fee to Animal Data Co. Since this is a payment for the purchase of data this does not trigger any WHT according to Norwegian law in our view.

8.2.2. *Source*

We hold the view that the source of income under existing Norwegian tax rules will be Animal Data Co's jurisdiction, irrespective of whether the information is collected elsewhere in the world. Emphasis may be put on the fact that Animal Data Co is the party which develops the relevant analytics tools and relevant software, which creates significant value for the enterprise.

8.2.3. *Nexus*

Assuming that Animal Data Co is resident in a foreign jurisdiction and that Information Site Co is resident in Norway, there would be no Norwegian PE triggered merely by Animal Data Co selling its services to a Norwegian tax resident enterprise via online channels.

8.2.4. *Treaty application*

See the description under "Character".

8.3. **Performance data analytics**

8.3.1. *Character*

The services provided by Service Co (database owner) to Equipment Co are facilitated by the use of its intelligent algorithms and automated processes. The services should not be

considered a licensing arrangement, since Equipment Co is not granted access to use the intangible property (e.g. algorithms or software) of Service Co. Further, there is no transfer of data or database rights from Service Co to Equipment Co triggering any WHT.

Equipment Co pay Service Co for monitoring, failure prediction and for automatic repair services of software implemented through communications from the data center without human participation. The question is whether this should be considered a payment for “know how”.

Under Norwegian tax law, according to the preparatory works to parliament (as referred to above), it follows that when intangible property is used by Service Co to provide services to its customers, this arrangement shall be regarded as a service and not a royalty or a capital gain/transfer of property.

The Commentary to article 12 of the OECD Model Tax Convention concerns the distinction between provision of know-how, rather than the provision of services, and would give guidance. In this case, Service Co performs services based on her own database rights, software, know-how, special skill and expertise but she does not transfer such special knowledge, skill or expertise to the customers. Thus, this is not transfer of know-how.

8.3.2. *Source*

Payments for the services provided by Equipment Co pays Service Co for the services that Service Co delivers. This *prima facie* provides that the resident state of Service Co should be considered the source state in this instance.

One complicating factor is the fact that the data is collected from different users, irrespective of where such users are located. Thus, the information needed to provide the unique service which Service Co is able to deliver, is sourced from all over the world. Further, the information may be used all over the world, and whether the data center is located in the same state as the customer in each case, will be a matter of coincidence (as it will generally not be required to have a data center in every state).

Our view is that the source of the service provided should be location/tax residency of Service Co.

8.3.3. *Nexus*

8.3.3.1. *Sensors*

In the heavy equipment case, the customer is the owner of the sensor. However, data picked up from the sensor is used and owned by Service Co in its provision of services to the customer and to others. Service Co does not pay for the data as such. Service Co needs the data in order to perform its services to Equipment Co.

We hold the view that this arrangement should not be taxable as a domestic PE (NTA section 2-3 paragraph 1 letter b) since Service Co does not carry on any business through the sensors under the definition of the provision. The sensors only collect information. The transfer of data and repair through telecommunication links should not create a nexus or PE for Service Co in Norway.

In the consumer sensor case, Service Co is the owner of the sensor. Data picked up from the sensor is used by Service Co in its provision of services to the customer and to other

customers. The data is owned by Service Co. Service Co does not pay for the data as such. Service Co needs the data in order to perform its services to Equipment Co.

The question is whether Service Co is taxable to Norway under the domestic PE rule in NTA section 2-3 paragraph 1 letter stating that a foreign owner is taxable for income from tangible assets located in Norway. Since the sensors are not automated equipment generating income for Service Co but a tool to collect information, we believe this should not trigger any tax liability under this rule.

In any case, where a tax treaty exists between the resident jurisdiction of Service Co and Norway, the question is whether the arrangement could be considered to constitute a “fixed place of business” at which the activities of Service Co are “wholly or partially carried on through”.

For a PE to exist, Service Co has to dispose of, or have physical access to, the sensors at the premises of Equipment Co. This does not to be case. If Service Co has access to the sensors (e.g. for maintenance reasons), we do not believe that Service Co is considered “carrying on its business” through the sensors. The sensors are only used to collect information (and thus resembles the activity which is normally explicitly exempt from creating a PE), while the business being carried out is the services which are delivered remotely from the premises of Service Co.

However, if Service Co has the database which is situated in Norway and delivers its services electronically and automatically from this database, the conclusion may be a PE.

8.3.3.2. *Data centers*

We refer to the section on “character”. The payment would be business income, and not royalty payments subject to WHT. Norway only levies WHT on certain lease arrangements related to vessels etc.

8.4. **Analytics based consultancies**

8.4.1. *Character*

Consultant Co (database owner) uses the database to deliver a service to educational institutions. There is no transfer of data base rights from Consultant Co to educational institutions, assuming the educational institutions cannot reproduce and distribute copies of the database to the public. This transfer will not trigger WHT in Norway.

In the second scenario Consultant Co also allows researchers to access its database for a fee to engage in their own research projects. The researcher cannot further disseminate the data but is allowed to use the data to commercialize the results of its research. Since the researchers do not get any right to resell copies to its customer or resell the right for customers to copy data from the database, this should not be classified as royalty under Norwegian law.

None of these cases should be regarded as the transfer of know-how (in a tax treaty context or under domestic law). Consultant Co performs services and sells/delivers copies of the database to his customers based on his own database rights, software, know-how, special skill and expertise. Consultant Co does not transfer such special knowledge, skill or expertise to the customers, but the result of his work (know-how).

Summary and conclusions

In accordance with the megatrends and the changes generated by the technological disruption, economic agents in our country have been adapting their way of doing business and carrying out their activities, noting an increase in the flow of cross-border operations, mainly those related to e-commerce and digital services, including big data transactions.

Regulatorily, there is no legal framework that specifically deals with this type of transactions. As initial reference points for the analysis, the provisions contained in the rules on copyright, industrial property and, recently, the law on personal data are considered. Following this line, this report evaluates the various legal businesses that could arise around big data transactions, initially identifying the sale of intangibles, temporary transfer of rights, the transfer in use, as well as digital services and technical assistance, among others.

From the local tax perspective, the legislation does not have specific provisions applicable to define the nature of big data transactions, resulting in one of the most complex tax matters. This aspect is especially addressed in this report.

Due to the unique characteristics that big data transactions may involve, the identification of the obligations assumed by the parties as well as the aim of the transaction will constitute the first step in order to have the transactions duly characterized, which will determine various tax consequences, with particular attention to those related to the withholding of taxes on Peruvian source income generated by non-domiciled subjects. In this sense, the report emphasizes the problem in defining whether a service is digital or technical assistance (applicable withholding rate of 30% and 15%, respectively).

At the local legislation level, there are pronouncements from the Tax Administration and jurisprudence from the Tax Court covering the criteria for determining the qualification of services as digital, technical assistance or other related services.

Another point of analysis is the application of the provisions contained in the Double Taxation Conventions signed by Peru, in particular the application of the article related to royalties since, in some conventions, the definition for royalties includes the digital services and the technical assistance (in other agreements, only the technical assistance) which could determine the tax levy without exceeding 10% or 15%.

It should be added that some controversy has arisen in relation to transactions that involve the transfer of databases. Their classification as intangibles, if their transfer constitutes a sale or provision of service, and the amortization of the investment have also been the subject of pronouncements by the Tax Administration and the Tax Court. Although the tax legislation does not have a definition of intangibles, accounting standards

¹ Currently tax partner of EY Peru. He leads the provision of tax compliance services to local and multinational companies and projects aimed to the technological transformation for tax departments
The Peruvian branch report has been prepared with the great contribution of Victor Mora, a talented tax professional.

are used, which in the author's opinion is reasonable, despite the suggestion of inclusion of a definition in the tax legislation.

Another area where controversy can arise is transfer pricing. To make big data transactions possible, it is common to appreciate a significant contribution or intensive use of intangibles and, in more than one case, new ones could be generated. Our tax legislation, in this case, follows the guidelines of the OECD, as it does not establish a priority or hierarchy in the choice of the applicable valuation method, since, on the contrary, it must reflect the economic reality of the transaction, which must be evaluated as appropriate in each case.

In the last part, the report presents comments referring to the treatment of cross-border services, especially digital services that could derive from data transactions, for the purposes of the General Sales Tax, as well as tax incentives in relation to research and development projects that may be applicable in certain circumstances.

Based on the above, the definition of the tax effects derived from big data transactions requires, as occurs with other tax topics, a careful analysis for each case.

Introduction: Legal background

Notwithstanding the highlights of some local laws, this report refers to the general description of the general report.

Regulations on copyright protection

Legislative Decree No. 822, Copyright Law, and Decision 351 of the Andean Community, Common Regime on Copyright and Related Rights are intended to protect the authors of the works² and the copyright holders.

The *author* is any natural person who carries out the intellectual creation (legal persons are not included), the *beneficiary* is the natural or legal person to whom, by any title, recognized rights are transmitted and the *right-holder* is the person with respect to whom protected rights are recognized, and there may be original and derivative owners.

These laws establish that databases³ are included within the works protected by their nature of compilations, provided that the selection or arrangement of their content (data) constitutes an intellectual creation.⁴

Additionally, they grant to the author moral and patrimonial rights. Regarding the patrimonial right, this confers that the author enjoys the exclusive right to exploit his work under any form or procedure and to obtain benefits for them.

² According to numeral 4 of art. 2 of the Copyright Law, work is any personal and original intellectual creation, capable of being disclosed or reproduced in any way, known or to be known.

³ Numeral 4 of art. 2 of the Copyright Law indicates that databases are a compilation of works, facts or data in printed form, in a computer storage unit or in any other way.

⁴ Ugarteche (2020), illustrates this situation by stating that "For example, the white pages of the telephone directory are a database ordered in alphabetical form, that is, in the selection or arrangement of data or names there is no creativity or originality, since the alphabetical order is not. In the guides where telephone numbers appear first ordered in increasing order or a legislative compilation ordered by dates or number of laws, it is likewise".

Following those regulations, the author of a database may transfer or dispose definitively and exclusively to a third party the patrimonial rights of his work in exchange for a consideration, without ignoring the authorship of the work to its creator (moral right).

In addition, it is possible for the author of a database to temporarily transfer the patrimonial rights on his work, allowing the acquirer the exclusive exploitation of the work and benefit from it.

Another legal figure included in the Copyright Law is the *license*,⁵ through which the author of a work (licensor) allows or authorizes a third party (licensee) to directly serve, enjoy or use the work in a certain way without transferring its ownership nor economic rights.

Regulations on industrial property

The applicable rules are Decision 486 of the Common Regime on Industrial Property of the Andean Community, and the Legislative Decree No. 1075 and its Regulations.

Those rules establish that the trademarks of products and services, patents of invention and business secrets of individuals or legal entities constitute elements of industrial property, therefore they are protected.

In relation to trade secrets, article 260 of the Decision provides that any undisclosed information that a natural or legal person legitimately possesses, that can be used in any productive, industrial or commercial activity and that is capable of being transmitted to a third party, constitutes a trade secret, provided that such information is secret, has a commercial value because of its secret character, that is, that generates a competitive advantage or economic benefits to its owner (Durand, 2020, p. 22), and that has been subject to reasonable measures to keep it secret by its rightful owner.

Personal data protection

The provisions of Law No. 29733, Personal Data Protection Law (hereinafter “PDPL”), and its Regulations establish that *personal data* is any information that identifies or makes identifiable an individual (legal entities are excluded), who is called *owner of the personal data*.

After applying certain procedures for its *treatment*, such data may be organized within a *personal databank*,⁶ whose ownership may correspond to a private person, either a natural or legal person, who is called *owner of the personal databank*. The treatment of these data can be carried out by the owner of the personal databank or by a person in charge designed by the owner (*in-charge of the personal databank*).

These regulations have provided that the treatment of personal data, its transfer and commercialization are subject, among other principles, to the prior, informed, express and unequivocal consent from the owner of the personal data.

However, in accordance with the PDPL and its Regulations, if the owner or person in

⁵ Regulated by numeral 16 of art. 2 of the Copyright Law.

⁶ According to para. 1 of art. 2 of the PDPL, they are an organized set of personal data, automated or not, regardless if the support is physical, magnetic, digital, optical or otherwise created, whatever the form or modality of its creation, formation, storage, organization and access may be.

charge of the personal data treatment applies anonymization or disassociation⁷ procedures, they could use the personal data being processed for purposes other than those that motivated its gathering.

Part One: Basic principles: Character, source and nexus

1.1. General overview

In the tax legislation there are no specific regulations that define the nature of big data transactions; however, we have definitions of digital services, technical assistance, royalties, among other concepts that can be associated with the transactions that are the subject of analysis. Similarly, the Tax Administration and the Tax Court have ruled on some transactions involving the transfer of databases.

1.2. Character

Fiscal consequences of a transaction depend on its aim, which demands to analyse the juridical nature of the contract, in order to understand the length of the obligations assumed by the parties. In this sense, first paragraph of Rule XVI of the Preliminary Title of the Tax Code provides for: *"To determine the real nature of the taxable event, SUNAT⁸ will take into account the acts, situations, and economic relationships effectively made, pursued or stated by the tax debtors"*.

Rule IX of the Preliminary Title of Tax Code admits the supplementary application of Tax Law Principles by providing for: *"In matters not provided by this Code or in other tax regulations, regulations other than tax regulations may be applied as long as they are not opposed or distorted. In addition, the Principles of Tax Law will be applied, or failing that, the Principles of Administrative Law and the General Principles of Law"*.

Regarding the theory of obligations, these are classified according to the nature of the provision into obligations of giving, doing and not doing. According to civil doctrine, the obligations or benefits of *"giving consist of the delivery of an asset; those of doing, in the execution of an act; and those of not doing, in an abstention"* (see section Bibliography, Castillo, 2014, p. 212).

In the case of services, the doctrine and jurisprudence in tax matters have agreed that they include obligations to give of a temporary nature, that is they do not involve a transfer, such as leases, obligations to do and obligations not to do.

Likewise, disposals of assets are framed as obligations to give. In the Income Tax Act, we will be facing an alienation⁹ if the transaction involves the provision and transfer of

⁷ According to art. 2 of the PDPL, the anonymization and disassociation processes prevent the identification or do not make the owner of the personal data identifiable; however, the first is an irreversible procedure and the second, reversible.

⁸ Superintendencia Nacional de Aduanas y Administración Tributaria.

⁹ According to art. 5 of the Income Tax Law "alienation is understood to be the sale, exchange, final assignment, expropriation, contribution to companies and, in general, any act of disposition by which the domain is transferred for consideration".

ownership of an asset in exchange for a consideration, and before a sale¹⁰ for the Value Added Tax if such asset is transferred for consideration.

Based on the foregoing, the author considers that it is possible to identify different legal businesses around big data transactions in its various forms (raw data, aggregated data and big data analytics) and, hence, define their nature for tax purposes. In this same line, the report explores the treatment of databases.

Databases as intangible assets

The Dictionary of the Spanish Language defines the databank as the set of data stored in the form of cards, tapes or magnetic disks, from which certain information can be extracted at any time, generally by means of an electronic computer. As for the word “data”, the dictionary mentions that it is the representation of information in a suitable way for processing by a computer (Rae, 2020).

The doctrine indicates that goods are characterized by being appropriable entities, susceptible to trafficking, with autonomous existence from the subject and with economic value or utility (see section Bibliography, Lacruz, 2000, p. 2; Castillo, 2018, p. 233).

The Peruvian Civil Code has classified the goods between immovable (real estate) and movable. Regarding the latter, article 886 establishes that property that can be carried or moved from one place to another is movable, as well as other property not included in the category of real estate.

From an approach to civil matters, databases would constitute movable property insofar that they are capable of being transferred by digital or computer networks from one place to another, they have an autonomous existence to the subject who owns them, they have an economic value and therefore, they are susceptible to trafficking.

Additionally, considering that the databases do not have a physical presence in themselves, but rather that their existence is incorporeal and immaterial, within the classification of property, they would be found within the category of intangible assets.

Our tax legislation contains provisions regarding the tax treatment of intangibles but does not establish a definition or rules to define intangibles. In this case, both the Tax Administration and the Tax Court have repeatedly resorted to the definition contained in the International Accounting Standard No. 38 – Intangible Assets.

Sale of databases vs. provision of services

Some authors maintain, at the doctrinal level, that in the case of intangible assets it is questionable to refer to the transfer of property since its nature is one of “rights” and not of things, in which case it would be pertinent to refer to the transfer of the right (see section Bibliography, Córdova, 2004, p. 135).

¹⁰ In accordance with subsection a) of art. 3 of the General Sales Tax Law, it is considered a sale: “any act by which goods are transferred for consideration, regardless of the designation given to the contracts or negotiations that originate such transfer and of the conditions agreed by the parties”.

To the extent that the effects of the transaction imply that the rights over the intangible are transferred allowing the acquirer its use, enjoyment, disposition or others, we would be facing a sale for Income Tax purposes.

As previously indicated, the Tax Court and the Tax Administration have recognized that the databases qualify as intangible assets and, therefore, are susceptible to being disposed of.

In resolution 21510-4-2012, the Tax Court has held that databases constitute intangible assets (2012). In its analysis, it includes the criteria established in IAS 38 (identifiable assets, of a non-monetary nature and without physical appearance, that generate future economic benefits, and whose cost can be reliably valued), and the definition of the database contained in the Copyright Law.

Through report N ° 124-2012-SUNAT/4B0000, SUNAT analyses whether the sale of a database from a non-domiciled provider to a domiciled customer by an electronic means constitutes a digital service and generates income from Peruvian source taxed with Income Tax, or if it is related to the import of a good not taxed with said tax (2012).

The databases to which it refers are standardized, that is, they are prepared in a general way without any additional action that implies adjusting said databases to the specific need or preference of the purchaser.

It is interesting to appreciate that, in its development, the Tax Administration characterizes the operation as one that involves a provision of giving because “the provider (non-domiciled subject) transfers said bases to the client (domiciled subject) as they have been prepared”, thereby concluding that it is a sale and not a service in which case a provision to be made should have been evidenced (see Bibliography, Sunat, 2012).

Royalties for temporary assignment of rights

On the other hand, if the transactions involve the temporary transfer of use, enjoyment or exploitation of intangibles, we could be facing a license agreement, a temporary transfer of rights or other figures that configure the payment of a royalty, but not against a sale.

For tax purposes, article 27 of the Income Tax Law (hereinafter “ITL”) indicates that it qualifies as a royalty any consideration originated by the “use” or “privilege to use” copyright of literary, artistic or scientific works, patents, trademarks, designs or models, plans, processes or secret formulas.

Note that when article 27 provides that any consideration for the use or privilege of using copyright, among others, constitutes a royalty, it refers to the fact that the author does not permanently transfer all his rights, but only temporarily.

It should be added that when the norm indicates that the consideration made for the use of “copyright” qualifies as a royalty, it refers to those operations that are aimed at the economic exploitation of the author’s economic rights over his work.

In other words, the consideration paid in exchange for the exploitation of, among other patrimonial rights, the rights of reproduction and distribution of the work will qualify as a royalty. Such is the case with the temporary assignment of economic rights, whereby the author (transferor) transfers for a specified time and exclusively to a third party one, some or all of the economic rights that he has, for example, over a database in favour of a third party (transferee).

The exclusivity granted by the temporary assignment of rights over a database will allow the assignee to be the only one who exploits that assigned patrimonial right, even

preventing the author of the database (assignor) from directly exploiting or transferring the same right to another third party until the term of the contract expires. This does not undermine the moral right of the author.

License of use

On the other hand, without having to transfer the ownership and economic rights, through a license agreement, the author of a database (licensor) can authorize one or more third parties (licensees) to use his work but prohibit its reproduction or dissemination (see Bibliography, Córdova, 2001, p. 240).

In this legal business, the licensor allows the licensee (s) to use copies or copies of its database but does not allow the economic exploitation of the economic rights over it. Therefore, the consideration received in exchange for a license will not constitute royalty as long as there is no use or exploitation of the “copyright”, that is, of the economic rights. For tax purposes, we would be facing a sale or a provision of services depending on whether the transferred database is a standardized or a customized one, respectively.

In dissonance with the aforementioned article 27 of the ITL, the subsection a) of article 25 of the Regulation of the ITL (hereinafter “RITL”), when regulating the deduction of expenses for intangibles, indicates that such deduction will proceed when it is originated in the transfer of the intangible and *not for the use or the concession of use of intangibles (license), in which case the deduction will correspond to royalties*. Considering that the regulatory provision contravenes the provision of the law, the latter would have to prevail by normative hierarchy.

Royalties for the transmission of information related to industrial experience

Additionally, article 27 of the ITL also classifies as royalties any consideration paid in exchange for the sole transmission of information related to industrial, commercial or scientific experience. This includes all transmissions of specialized knowledge, whether “secret or not”, of a technical, economic, financial or other nature that, translated into instructions, formulas, plans, models, designs, drawings or other similar elements, allow the use of accumulated experiences of an industrial, commercial, technical or scientific nature.

Such technical information has been considered by the doctrine as know-how, which refers to “knowledge or technical knowledge applicable at the business level, of a *secret nature* due to its high economic value and susceptible to contracting (...) and, due to its reserved nature it excludes the knowledge that is taught or acquired for a daily or ordinary activity” (see Bibliography, Benavente, 2008) (emphasis added).

As Gálvez argues, it is possible to distinguish the cases in which the object of a contract is to provide knowledge from those in which simple information or data is provided: “in the first, the object is to transmit forms, methods, rules, procedures or similar to do things or define something, *that the user can make their own to replicate them* indefinitely; while in the second there are only data, of greater or lesser interest, but that do not have the virtue of revealing the way in which something can be done or obtained” (2009, p. 99) (emphasis added).

Based on such ideas, it is indicated that not all knowledge will be constituted as know-how, but only that part which is strictly technical and typical of a certain field (industrial,

commercial, technological), that has an economic value that makes it liable to be transferred, but provided that it qualifies as a business secret that provides advantages or competitive value to its holder (see Bibliography, Benavente, 2008).

Considering that the tax law has established that the consideration for any transmission of specialized knowledge is considered a royalty, regardless of whether they are secret or not, the sum paid for the transmission of business secrets will qualify as such as that which does not have this condition.

Transfer of personal data

Without abandoning the analysis of the nature of big data transactions, it is interesting to review the case of databases that contain personal data, given that they have a particular legal regime.

Law 29733 recognizes that the personal data contained or intended to be contained in personal databanks may be commercialized as long as the principles established in the aforementioned law are met.

Under a first approximation to the legal norm, it can be observed that private legal persons can hold the ownership of personal databanks, determining the purpose and content of these and observing the adequate treatment and security measures, even when the sole owner of the personal data is the natural person to whom it corresponds.

In line with the foregoing, it seems that personal databases that have been subjected to an anonymization or disassociation procedure, may be subject to commercialization and, therefore, for example, be sold displaying the tax consequences of a disposal.

On the other hand, it could be controversial to analyse those transfers of personal databases that have not been subjected to anonymization or disassociation. Theoretically and in strict regulation compliance, any transfer of personal data requires the consent of its owner, that is, of the natural person to whom it belongs and must be limited to the purpose that justifies it. However, there are pronouncements in which the tax consequences of transactions (of another nature) have been recognized even when they have not complied with legal requirements.

Considering the above, it is interesting to specify some aspects of the reference case studies.

Data broker and information reseller

As indicated, it is necessary to identify the object and obligations contracted by the parties as well as the type of information that is transferred.

Website Co is obliged to provide access to the information generated on its website so that Broker Co obtains the information through the APIs. The information transferred, corresponds to raw data of which Website Co has no ownership; the author rules out the possibility of characterizing the transaction as sale, temporary assignment or license of use. Rather, it would be a service consisting of providing access to information.

On the other hand, the case maintains that Broker Co carries out the investments and activities necessary to process the information obtained from the various providers in order to generate structured databases according to the specifications of its clients. Delimiting whether the execution of data analytics, organization and structuring of the information

by Broker Co is a means to obtain specific databases or the objective of the commercial relationship itself is also relevant to characterize the transaction.

Also note that the client can use the database indefinitely, but contractually Broker Co prohibits its subsequent sale, which is a relevant aspect that makes it difficult to propose that it is a definitive transfer of the intangible (database). Therefore, we would be facing a provision of services to the extent that Broker Co has structured the database in a customized way or according to the requirements of the clients so that they can use and enjoy it but Broker Co maintains its ownership.

A similar case has been the subject of a pronouncement by the Tax Administration through report 124-2012-SUNAT/4B0000, stating:

“... In effect, in said operation the databases that are transferred are not elaborated according to the client's preferences (which would suppose a provision to do), but they are elaborated previously and in a general way without having the provider take any additional action that implies the adjustment of said bases to the specific need or preference of the client. Thus, the provider (non-domiciled subject) transfers these bases to the client (domiciled subject) as they have been prepared, which implies a provision of giving. Consequently, said operation does not qualify as a digital service ... ” (see Bibliography, Sunat, 2012).

Data feeds and performance data analytics

In these data transactions, the transfer of raw data or databases is not evidenced, but on the contrary, they are used to create and supply new results or serve as inputs for the purpose of providing services.

Thus we have the data feeds case in which the object of the transaction is the application of a series of analytical procedures on the raw data in order to create the pattern maps and predictions of animal migration and deliver said creation (the result of the do) to Information Site Co, but without transmitting the data analysis algorithms that generated such predictions.

These characteristics show a provision to do on the part of Animal Data Co, thus configuring a service.

The question arising is if this transaction constitutes a transfer of experience or specialized knowledge, which consideration will constitute a royalty; however, it seems clear that Animal Data Co does not transfer the algorithms or procedures in favour of Information Site Co so that the latter has the “know how” to make the predictions itself, but rather supplies the predictions already generated (results) .

In the other case, performance data analytics, Service Co obtains the information on the performance of the equipment through the installed sensors, stores historical information in databases and analyses such information in order to provide monitoring and failure prediction services to the equipment users. The case highlights that in the provision of services there is no human intervention.

For the author, the use of technological and automatic tools, such as sensors and databases, do not disturb the nature of the services, monitoring and predicting failures, but rather constitute means used to make the provision of such services effective. However, it is important to take these factors into account in order to classify these services as digital or not.

Analytics based consultancies

In the first case, the specialized information accumulated in the database constitutes an input for the purposes of providing the consulting service in educational matters, so its nature is aligned with those seen in the data feeds and performance data analytics cases.

In the second case, Consultant Co allows third parties to access the specialized information accumulated in its database so that they use the information contained therein for their own research, but at the same time limiting their actions so that they do not alter it. These characteristics of the transaction pose the challenge of checking whether the transaction qualifies as a use assignment (license) of the database or a service.

It is possible that it is pointed out that, from paragraph a) of article 25 of the RITL, the consideration in exchange for the authorization to use the information contained in the intangible (database) constitutes a royalty. From another perspective, it could be considered that it is a service consisting of providing access to information.

It is appropriate to indicate that, although the information in the database is standard for all those who access it, we would not be facing a sale since third parties cannot modify or alter it or, in general, display the inherent attribute to the property or ownership, “the disposition”.

Nor would we be facing a transaction that involves the transmission of experience or specialized knowledge, the consideration of which constitutes a royalty, since Consultant Co does not transfer the knowledge or structured technological procedures in favour of third parties so that they can use “know how” to make predictions or analysis by themselves.

1.3. Nexus and source

Business income is considered any profit or income that a company obtains in the occurrence of its relationships with third parties, without it being relevant if such benefit comes from the sale of the source (corporeal or intangible) that generated it or from other extraordinary activities.

For the purposes of paying the tax on the income generated, the IITL has established as linking criteria the domicile (residence) of the subject and the location of the source of income. Thus, domiciled subjects are taxed on income produced by Peruvian and foreign sources (worldwide); whereas those not domiciled only by those of Peruvian source.

For these purposes, the IITL considers as domiciled subjects, among others, legal persons incorporated in the country, branches, agencies and other permanent establishments in the country of companies and entities of any nature incorporated abroad.

For their part, the following constitutes income from Peruvian sources, among others:

- a. The gains produced by goods (other than properties) or rights, including those that come from their alienation, when the goods are physically located, or the rights that are used economically in the country.
- b. Royalties when the goods or rights for which the royalties are paid, are used economically in the country or when the royalties are paid by a subject domiciled in the country.
- c. Profits arising from civil, commercial, business or any other kind of activities carried out within the national territory.
- d. The income for digital services provided through the Internet or any adaptation or application of the protocols, platforms or technology used by the Internet or any other

network through which equivalent services are provided, when the service is used economically, or consumed in the country.

- e. The income obtained from the provision of technical assistance services when it is used economically in the country.

Considering that non-domiciled subjects are taxed on those incomes of Peruvian source, the ITL has provided that the same will be held by withholding in charge of the subjects who pay or credit the income in favour of them. For this purpose, in accordance with article 56 of the ITL, the following rates must be applied to income:

Transaction	Rate
Royalties	30%
Technical assistance	15%
Other income	30%

Assets and rights in the country

Paragraph b) of article 9 of the ITL considers as Peruvian source income the profits generated by the exploitation of goods (other than properties) or rights (which include the patrimonial rights of author and inventor) – known as income product – as well as the results from the sale of those assets or rights – denominated as capital gain.

For this purpose, the goods must be territorially located within the country. For this reason, this rule is only applicable to corporeal or tangible assets which have existence and physical presence, and not to intangible or immaterial assets. The income produced through the sale of intangible assets and rights is considered Peruvian source income when they are used economically within the country¹¹.

It should be noted that the income referred to in subsection b) of article 9 of the ITL, those determining the producer factor, is the good or right and not the performance of an activity or activity by the person receiving the income.

Royalties

In accordance with subsection b) of article 9 of the ITL, the income is of Peruvian source when the goods or rights for which the royalties are paid, are used economically in the country or when the royalties are paid by a subject domiciled in the country.

¹¹ Through the Sentencias en Casación Ns° 15664 – 2014-Lima and 474-2016-Lima, it has been established that “in the case of material or tangible goods, only the benefits that they produce can be classified as Peruvian source income to the extent that they are physically located in Peru; and, in the case of intangible assets or rights with respect to which it is impossible to determine whether they are physically located in Peruvian territory, the economic use criterion is applicable, according to which *the income they produce will have their source in Peru to the extent that they compensate the benefit obtained by the user in the country*” (emphasis added). (Corte Suprema de Justicia de la República, 2018a, p. 43; 2018b, p.72).

Activities of any kind carried out within the national territory

Subparagraph e) of article 9 of the ITL has established that income is considered to be of Peruvian source when it is generated from civil, commercial, business or any other kind of activities carried out within the national territory.

For that qualification, it is relevant that the action, activity or, in general, the doing is what produces the income, without prejudice to the fact that for this purpose the subject uses goods, in which case they will constitute means to achieve the aforementioned objective. In addition, it is a requirement that such activity be carried out within the country; income generated by non-domiciled persons derived from activities carried out abroad, is excluded.

Digital services

In accordance with subsection i) of article 9 of the ITL, the income generated by digital services is classified as Peruvian source income, when the service is economically used, used or consumed in the country. According to article 4 -A of the RITL, it is understood that this service is economically used, used or consumed in the country, among others, when it serves the development of the economic activities of a taxpayer receiving third category income. The norm presumes that a third category income taxpayer who considers the consideration for the digital service as a cost or expense, which complies with the principle of causality provided in the ITL, economically uses the service in the country.

In order to determine the digital quality of the services, subsection b) of the first paragraph of article 4 -A of the RITL indicates that the following constituent elements must occur:

- a) It must be a service, that is, the provision must consist of an activity (doing) and not delivering a good (giving)¹² from one person to another.
- b) The provision must be made through the Internet or through any adaptation or application of the protocols, platforms or technology used by the Internet or any other network.
- c) It is provided through online access (through an internet connection or another network or system).¹³
- d) The provision must be essentially automatic so there is no or minimal human intervention.¹⁴

¹² In the explanatory statement of the provision of Supreme Decree No. 086-2004-EF, it was indicated that "Unlike the European position, the draft standard has not considered within the category of digital service the digital good, due to the clear intention of the legislator not to create a break in the principle of neutrality between the import of goods (not subject to income tax) and the electronic download of the same types of goods (music, books, etc.)" (cited in Tuesta, 2017, p. 3) (emphasis added).

¹³ According to SUNAT, in order to qualify a service as digital, "the means through which the service is accessed (connection to the network) is decisive, but not the way in which the information is processed, either through an immediate or "batch" processing, as indicated in Report No. 110-2019-SUNAT / 7T0000 (2019, p. 3).

¹⁴ According to the doctrine, the service is not provided by "a human making use of the internet as a communication channel, but rather the service is provided by a system or a machine programmed to respond to the user's request or request, in such a way that the internet is not only the communication channel but the virtual space (the cloud) where the system or program is housed, which is ultimately the one that has to provide the service" (Tuesta, 2017, p. 5).

- e) The execution of the service is only viable if there is information technology (computer tools).

In this regard, subsection b) of article 4 -A of the RITL has expressly provided for certain services that would qualify as digital, such as the provision of application services,¹⁵ electronic access to consulting services and information sharing.¹⁶ However, according to the jurisprudence of the Tax Court, the services contained in the aforementioned list must meet the substantial requirements indicated in the preceding paragraph (2018; 2019).

In order to qualify whether a digital service generates income from a Peruvian source, it is not relevant where the servers are located, the country where the data was extracted or, what, if appropriate, the nationality of the people is to whom the data refers. It is enough that the main elements are present and the economic use, use or consumption in the country is verified.

Technical assistance

According to subsection j) of article 9 of the ITL, income from a Peruvian source constitutes income obtained from technical assistance, provided that it is economically used in the country. For this purpose, in accordance with article 4-A of the RITL, it is understood that it is economically used in the country when, among others, it serves the development of the activities of persons domiciled in Peru or the fulfilment of its purposes. The norm presumes that a third category income taxpayer who considers the consideration technical assistance service as a cost or expense, which complies with the principle of causality provided in the ITL, economically uses the service in the country.

In order to determine if it is a transaction for technical assistance, article 4-A of the RITL indicates that the following constituent elements must be present:

- a) It is an independent service¹⁷ that implies the application of certain procedures, arts or techniques by the provider.
- b) Such service is intended to provide or transmit non-patentable specialized knowledge.
- c) Such knowledge is necessary in the production, marketing, service provision process or any other activity carried out by the user.¹⁸

Notwithstanding the fact that these elements make up the assumption of technical assistance, subsection c) of article 4 -A of the RITL has expressly provided for certain services that, without necessarily qualifying as technical assistance, must be considered as such.

¹⁵ The application service provider (ASP) obtains licenses for the use of the instructional program for computers (software) to host such programs on servers that it owns in order to have them being used by its user clients as a means to interact with third parties.

¹⁶ Service through which information is electronically distributed to subscribers (customers), designed based on their personal preferences. The main value for clients is the convenience of receiving information in a format designed according to their specific needs.

¹⁷ According to the doctrine, technical assistance consists of an act of doing by the provider and not of delivering or granting a good or right "although by virtue of such concession some degree of technology transfer or specialized knowledge is noticed" (La Torre, 2008, p. 4).

¹⁸ In addition, technical assistance includes the training of people for the application of the specialized knowledge transmitted by the service provider to the user.

These include engineering services, project research and development, financial advisory and consulting.

The doctrine indicates that a technical assistance is characterized by the fact that a subject applies its non-patentable knowledge and experience in order to provide a third party with recommendations, suggestions and instructions related to the production, commercialization, or provision of services or any other activity carried out by the user (see Bibliography, La Torre, 2008, p. 5; Puga y Polo, 2008, p. 643-644).

Based on such ideas, this service does not imply a mere transmission of specialized knowledge, but those that are not patentable¹⁹ and are applied or used actively by the provider to provide recommendations, suggestions and instructions aiming to achieve a result that favours to the activity carried out by the user. These characteristics make the technical assistance different from the royalty concept in which the object of the contract is the mere transmission of specialized knowledge.

Considering these provisions, in relation to the case studies, the main point of analysis concerns the qualification of services as digital, technical assistance or of another type.

Data broker and information reseller

Given the characteristics proposed for the provision of the services of access to raw data and the generation of standardized databases provided by Website Co and Broker Co, respectively, they could qualify as digital. Indeed, it is emphasized that for its execution there is no or minimal human intervention, it would not be viable in the absence of information technology and the means through which the service is accessed are associated with connection to the network, that is, to the API or by the use of servers.

In the scenario that Broker Co is a taxpayer domiciled in the country and Website Co is a non-domiciled, Broker Co would have to withhold 30% of the consideration paid considering that it would constitute a cost or expense, under the principle of causality of the ITL, necessary for the development of its business activity.

Data feeds

In this case, the specialized information supply service is possible using data analysis tools. The case states that Animal Data Co does not transmit its software or the data analysis algorithms that allow the generation of the patterns and predictions.

The use of data analytics can be noted, which, integrated into the Animal Data Co software, enable the automatic or essentially automatic generation of animal migration patterns and predictions, which are provided through online accesses to the Information Site Co website. Without the use of such tools the service could not be rendered and provided to the user. Based on these characteristics, the service would qualify as digital.

This service would not meet, among other requirements, the characteristic of the active role by Animal Data Co to provide Information Site Co with recommendations, suggestions and instructions throughout the service in order to develop its activity efficiently to be

¹⁹ With the understanding that they are not subject to being patented.

considered technical assistance, which remuneration would be subject to a withholding tax of 15%.

Performance data analytics

In this case, Service Co provides the services of monitoring and prediction of failures to the buyers of the equipment, noting that they are important in order to provide these services by the information obtained from the sensors installed in the equipment and the automatic analysis, through data analysis tools, of the information contained in the databases.

The data centre, which stores the database with the historical data and captures the performance data in real time, and hosts the analysis software that predicts failures, proposes solutions and recommendations for preventive maintenance. In many cases the solutions involve adjusting the software or other equipment controls through communications from the data centre without human participation.

Due to the characteristics of the services, it should be evaluated if they qualify as digital or technical assistance. First, it can be indicated that the service would be digital because for its execution there is no or minimal human intervention, it would not be viable in the absence of technology and the means through which the provision is accessed are the centres of data. On the other hand, and without ignoring such features, it is possible to state that the object of the service is not limited to monitoring and indicating the estimated failures, but rather, based on the technical information accumulated in the databases, recommendations and solutions are provided to achieve efficiency in the performance of the equipment; a scenario in which the concept of technical assistance service may appear.

Thus then, considering that Service Co and the users of the services are subjects not domiciled and domiciled in the country, respectively, the latter should withhold 30% of the consideration paid to the former in the scenario of a digital service; while 15% in the scenario of technical assistance.

Analytics based consultancies

In this case, Consultant Co provides the educational consulting service to educational institutions based on the automatic analysis of the information accumulated in the database that allows predicting educational performance, career choice and earning potential. Although the case includes a series of characteristics that could incline the analysis towards the digital services side, there could be other elements of judgment to evaluate the possibility to qualify the service as technical assistance.

Regarding the second assumption of the case, the transaction involves access to specialized information accumulated in a database granted by Consultant Co to external researchers so that they can use it for their own research in exchange for consideration that could qualify as a service or, eventually, as a royalty.

It is understood that, due to the nature of the information accumulated in the database, the access to which would be possible through technological adaptation, the execution of the service is carried out with no or minimal human intervention and it would not be viable in absence of technological processes. Consequently, the elements that make up a digital service would be present. However, the author acknowledges that there are also

arguments to maintain that the payment would be a royalty for the exploitation of an intangible (database).

Therefore, considering that Consultant Co and the researchers (clients) are not domiciled and domiciled subjects in the country, respectively, the latter should withhold 30% of the consideration paid to the former, either in the scenario of a digital service economically used in the country, or in the scenario of royalties paid by a domiciled in the country.

Part Two: Application of treaty principles

As analysed, the different data transactions can generate incomes of different nature for tax purposes, which may constitute Peruvian source income if requirements stated by the ITL are met.

Notwithstanding, Peru has signed some Double Taxation Conventions (hereinafter, “DTCs”), which in most cases follow the OECD Model Tax Convention (“OECD MTC”). Currently, we have in force DTCs with Chile, Canada, Brazil, Mexico, Portugal, the Republic of Korea and Switzerland²⁰ (see Bibliography, Ministerio de Economía y Finanzas, 2020).

In the case of services that qualify as digital or technical assistance, it must be verified if there is a provision in the DTC that contemplates the treatment of these services in a specific way, in which case such provision must be applied.

This is the case of *royalties* regulated in article 12 of the DTC, which includes, in some cases, the consideration for digital services and technical assistance. Under this provision, in principle, the power of taxation belongs to the state of residence of the beneficiary, but the state of source (where the royalties arise) may also tax the royalties if they are paid to a resident [of the other contracting state] and this is the beneficial owner,²¹ with the limits stated by each DTC (between 10 and 15%). Thus, we have the DTCs with Brazil and Switzerland that treat digital and technical assistance services as royalties, while the DTCs with Portugal and the Republic of Korea include only technical assistance services. In these cases, it is relevant to consider the definitions of each DTC regarding the services included.

It is also important to note, for example, the case of the DTCs with Chile and Canada that include within article 12 payments for the use or the right to use industrial, commercial or scientific equipment, but the DTCs with Portugal and the Republic of Korea do not include this case.

In Annex 1 we provide the exact definition of royalty provided for each of our current DTC, including not only article 12 but also the Protocol to the DTC.

In absence of a special provision that regulates the treatment of the service in the text of the DTC, the services will be treated in accordance with the provisions of article 7 of the DTC, *Business Profits*. In this case, the state of residence keeps its power of taxation, unless the beneficiary carries out his activity in the state of origin through a permanent establishment located therein and if the profits are attributable to such permanent establishment.

Additionally, we must mention that our country is a member of the Andean Community

²⁰ Despite being signed in 2006, the DTC with Spain has not been approved by Congress and remains ineffective. The DTC with Japan, signed in 2020, was sent to Congress for its approbation.

²¹ The requirement of beneficial ownership is introduced to clarify how art. 12 applies in relation to payments made to intermediaries. See the Commentary on the arts. of the OECD Model Tax Convention on Income and on Capital (2017).

of Nations, an international organization integrated by Colombia, Ecuador, Peru and Bolivia, which enacted its Decision No. 578, a supranational law that regulates the regime to avoid double taxation and prevention of tax evasion among its members.

According to its article 14, the incomes derived from professional, technical, technical assistance and consulting services companies will be taxable only in the country where the benefit of the services is produced, which is presumed to be the one in which the expense is imputed and recorded.

For its part, article 6 regulates the taxation of business profits, granting the exclusive power to pay taxes to the member country where the business activities are carried out.

On the other hand, article 9 establishes that royalties are taxed exclusively by the member country where the right to use the intangible asset is used or located.

Part Three: Transfer pricing

In Peru, transfer pricing (“TP”) rules apply to transactions: (i) between related parties; (ii) from, to or through non-cooperating or low taxation jurisdictions; or (iii) with parties whose income from these transactions are subject to a preferential tax regime.²² However, the adjustment is only applicable – to both parties of the transaction – if there is a lower income tax compared to the one which would have resulted if the transaction was made between independent parties.

Regulations state that prices of transactions under the scope of TP rules will be determined under any of the internationally accepted methods, for which it must consider the most appropriate to reflect the economic reality of the transaction, discarding a priority or hierarchy on the application of the different methods.

Our legislation contains a list of TP methods which match the OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (the “Guidelines”): the comparable uncontrolled price (CUP), the resale price method (RPM), the cost-plus method (CPM), the transactional profit split method (TPSM) and the transactional net margin method (TNMM) (2018).

In absence of a methodology or specific guide on local legislation, it is particularly problematic to choose the most appropriate method for a big data transaction because of its unique features, even more if we consider that this kind of transaction may involve the definitive transfer of an intangible (data base) or the provision of services which have been possible because of the intensive use of information technologies, investments on intangibles (software) and development of other abilities such as data analytics, artificial intelligence, among others, all of them linked – in a broad sense – to the definition of intangible. The new paragraph 6.6 of Chapter VI of the Guidelines, amended by the Report on Action 8 of the BEPS Project, states that the word “intangible” is intended to address something which is not a physical asset or a financial asset, which is capable of being owned or controlled for use in commercial activities, and whose use or transfer would be

²² To qualify a country as non-cooperating or low taxation jurisdiction, as well as preferential tax regime, our legislation contains some steps, such as not having an Agreement on Exchange of Information neither a DTC with exchange of information provisions; lack of transparency; and having an Income Tax rate equal to 0% or lower than 60% of the Peruvian tax applicable to such incomes.

compensated had it occurred in a transaction between independent parties in comparable circumstances.²³

Therefore, it is crucial to evaluate the characteristics of the data transaction and define if it involves an intangible.²⁴ Paragraph 6.34 of the Guidelines provides for some steps to analyse this kind of transactions: (i) identify the intangibles used or transferred in the transaction with specificity and specific, economically significant risks associated with DEMPE²⁵; (ii) identify the full contractual arrangements, with emphasis on the legal ownership; (iii) identify the parties performing functions; (iv) confirm the consistency between the relevant contractual arrangements and the conduct of the parties, determining the party which is assuming the economically significant risks; (v) delineate the actual controlled transactions related to DEMPE in light of legal ownership; (vi) determine the arm's length prices for these transactions consistent with each party's contribution and functions performed, assets used and risks assumed, if possible.²⁶

With this kind of transactions, it is also important to assess if both parties contribute with significant intangibles or if the relevant intangible is exploited only by one part of the transaction. In the first case the application of a method based on distribution of profits seems to be suitable.

For instance, TPSM seeks to eliminate the effect on profits of special conditions made or imposed in a controlled transaction by determining the division of profits that independent enterprises would have expected to realise from engaging in the transaction. This method is particularly applied primarily in cases where the tested transaction involves the transfer of unique intangibles or in multiple tested transactions that are so interrelated that they cannot be evaluated separately for the purpose of determining the arm's length price of each single transaction²⁷.

On the other hand, the TNMM examines the net profit relative to an appropriate base (e.g. costs, sales, assets) that a taxpayer realises from a controlled transaction[s]. This method can be used from the perspective of the transferor of the intangible as well as its acquirer, making the necessary adjustments, but there are opinions that this method should be applied to the entity which transfers the intangible, because it is designed to determine the fair market value when the transactions is individually analysed, starting from direct and indirect costs, adding the net or operational profit that would have been obtained in transactions with independent parties. The election of the tested party must

²³ OECD (2014), Guidance on Transfer Pricing Aspects of Intangibles, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing. <http://dx.doi.org/10.1787/9789264219212-en>.

²⁴ Additionally, para. 6.189 of Chapter VI of the Guidelines defines *hard-to-value intangibles* as a term which covers intangibles or rights in intangibles for which, at the time of their transfer between associated enterprises (i) there are no reliable comparables and (ii) at the time the transactions was entered into, the projections of future cash flows or income expected to be derived from the transferred intangible, or the assumptions used in valuing the intangible are highly uncertain, making it difficult to predict the level of ultimate success of the intangible at the time of the transfer.

See OECD (2015), Aligning Transfer Pricing Outcomes with Value Creation, Actions 8-10 – 2015 Final Reports, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264241244-en>.

²⁵ This acronym means development, enhancement, maintenance, protection and exploitation.

²⁶ OECD (2017), OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 2017, OECD Publishing, Paris. <http://dx.doi.org/10.1787/tpg-2017-en>.

²⁷ Michael Lang, Giammarco Cottani, Raffaele Petrucci & Alfred Storck, *Fundamentals of Transfer Pricing A Practical Guide* (Alphen aan den Rijn: Kluwer Law International B.V., 2019) p. 26.

also take into consideration the complexity of the parties, because the more complex it is, the more difficult it will be to identify suitable comparable transactions.

Part Four: Special regimes

4.1. General overview

In Peru there are no special tax regimes that apply to the development and sale of big data enabled goods or services.

4.2. DST

As discussed in Part One, the income tax is levied on digital services used economically in the country. Apart from that, there is no tax specifically linked to the acquisition or use of data.

4.3. Incentives

Although there are no specific tax incentives aimed at the development or exploitation of big data, the ITL has provided a tax benefit to taxpayers who invest in scientific research, technological development and innovation projects. To determine the income tax base, taxpayers that meet the established requirements may apply for an additional deduction over incurred expenses that corresponds with qualified projects, considering the established annual limits. In Annex 2 we present the relevant aspects of this tax incentive.

Part Five: Indirect tax

The GST Law indicates that the provision and use of services in the country are subject to tax. It is understood that the service is provided in the country when it is rendered by a domiciled subject, and when the use of service in the country is provided by a non-domiciled subject but is consumed or used in the national territory.

For this purpose, any service that a person performs for another and for which he receives an income or payment for consideration that is considered business income for income tax, qualifies as a service taxed with GST.²⁸

Under this regulation, digital services provided by non-domiciled subjects, which are consumed or used in the country, would be subject to the GST.

Notwithstanding the foregoing, it is considered that certain digital services in which the user is a natural person, are not subject to tax in Peru. In this sense, the possibility to tax these transactions is under evaluation.

Law Project No. 06181/2020-CR proposes the creation of a “Law that facilitates the

²⁸ GST rate is 18%.

collection of the General Sales Tax (GST) generated by the services provided through digital platforms” (2020).

Its purpose is to tax with GST the use in the country of services contracted or provided through digital platforms of audio, video or other similar content on the date on which the charges corresponding to the subscription are made by any means of payment in financial entities. For this purpose, the providers of such services must be non-domiciled subjects.

Part Six: Tax accounting

6.1. Recognition of transactions

In general, the income and expenses recognized by the companies are subject to their accrual as established in article 57²⁹ of the ITL.

Capitalization and amortization

Paragraph g) of article 44 of the ITL has established that “the price paid for intangible assets of limited duration” at the option of the taxpayer may: (i) be considered entirely as an expense in a single exercise; or (ii) be amortized proportionally within ten years.

According to the Regulations, this treatment proceeds when the price originates in the transfer of the intangible asset and not in the case of concession of use. Likewise, it indicates that intangible assets of limited duration are those which useful life is limited by law or by their own nature.

In the case of intangibles such as databases, determining whether they have a limited useful life will have to be evaluated on a case-by-case basis. For example, in resolution 21510-4-2012, the Tax Court concluded that in the case of the acquired database it did not identify a specific period of existence.

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²⁹ In force since 2019, Legislative Decree 1425 introduced a definition of accrual. This is based on the configuration of the substantial event that generates the income or expense. In addition, it includes specific regulation for the revenue recognition for some type of transactions. Up to date, it has been appreciated that the application of the new accrual definition has generated differences compared to the typical accrual definition under accounting standards.

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Summary and conclusions

Polish law does not provide for a separate big data legal concept or definition. Also, Poland has so far not developed any specific tax provisions that would relate to big data transactions as such, nor to digital economy taxation. Thus, in practice an analysis of the tax consequences of big data transactions would have to be made on a case-by-case basis and by an analysis of the general rules.

Polish income tax law includes a few provisions that may be useful to determine the tax consequences of the underlying big data operations. These refer, in principle, to operations on certain forms of intangible properties, such as copyrights, know-how or licenses. Where cross-border operations are concerned, the Corporate Income Tax Act² (further: *CITA*) contains certain provisions which may be relevant from the perspective of big data transactions, such as taxation at source of intangible services, such as, inter alia, data processing, consulting or advertising services, if they are paid out by the Polish tax resident. It seems though, that at this stage application of all of the above rules to the specifics of big data operations, has not been widely tested in the case law.

Moreover, one of the obstacles that tax practitioners and taxpayers may face when trying to determine tax consequences of big data transactions is variability of their forms and frequently – their complexity. It seems inevitable that big data operations will bring many discussions on what exactly the scope of the transaction is. Lack of developed tax practice, case law and uncertainties regarding the character of big data operations may sometimes hamper assessment of the application of the general rules, and the possibility to draw the line in which cases lack, e.g. human involvement, changes the ultimate tax conclusion. The same issue concerns the discussion on the source of income, where case law is moderately rich from the perspective of, i.e., intangible services, but has no developed approach to more digital business, where a value can be derived from data collected or generated by users located in Poland.

It should also be noted that Poland is a party to nearly 90 Double Tax Treaties (further: *DTTs*). This means that in case of cross-border transactions, often tax conclusions will be based on the wording of the relevant DTT interpreted with the use of the Commentary to the OECD Model Convention (further: *OECD MC*), or UN Model. *DTTs* concluded by Poland provide for some dissimilarity from the *OECD MC*, which might be interesting in terms of big data transactions, e.g. Poland made a reservation for withholding tax collection for royalties payment. Also, in several *DTTs* concluded by Poland, technical services are subject to withholding tax next to royalties. Of course, Poland is highly interested in discussions regarding taxation of a broadly understood “digital economy”. In February 2021 the

¹ Lawyer, graduate of the Warsaw University and a tax advisor in Crido Taxand. The author would like to thank Anna Wcisło, Filip Łajkowski, Martyna Gałdecka-Karpińska and Joanna Ciołko-Wąsowicz from Crido for the exchange of views and experience on the reports' topic.

² Corporate Income Tax Act of 15 February 1992.

Polish Ministry of Finance presented for public consultation a draft law introducing a so called “contribution on advertisement”. The bill assumed imposing new contributions on advertising revenues that taxpayers engaged in certain types of business activities, would be required to pay. The proposed contributions include contributions from i.a online advertising revenues. The taxation base for the latter was supposed to be calculated as the percentage of the revenue from online advertising, regardless of where it is earned, corresponding to the percentage of advertising recipients located in the territory of Poland. Nevertheless – at this point no further works concerning the draft are conducted and Poland is watching the discussion conducted at the international level.

Polish transfer pricing regulations do not address any specific regulations related to big data or even, more general, to digital data transactions. However, they do follow the OECD Guidelines for Multinational Enterprises and Tax Administrations quite accurately. Also, more often than not, the reference to the OECD Guidelines is used as an interpretation of the transfer pricing rules in developed tax practice and case law. There is also a very general mentioning of DEMPE functions with respect to comparability analysis of intangible properties, though no details of how to interpret the DEMPE functions are given, as well as a very brief summary of how intangibles difficult to value should be tested against the arm’s length principle (following the OECD approach, without any detailed comments).

In terms of VAT, dynamic development of the digital market, as well as big data collection and analytics creates completely new challenges in the area of VAT taxation. Although it seems doubtless that if there is a big data transaction that is to be assessed from the VAT perspective, it would be a provision of a service, the main problems may especially concentrate on the definition of “economic activity”, “taxable person”, as well as on determination of the value of services, in particular in case of data exchange operations.

Lastly, the Polish CITA provides for certain incentives, such as R&D relief or the IP Box regime, application of which to some of the big data developments or exploitations seems to be possible.

Introduction: Legal background

There is no separate “big data” legal concept or definition under Polish law, which might protect separate data as such. However, there are several ways how the database as a whole might be protected by law. The basic measure in Polish law is the Polish Act on Databases,³ which protects so-called “*sui generis*” databases which fall under a certain definition, namely the concept of a database as a set of data or any other materials and elements collected according to a specific systematics or method, individually available in any way, including by electronic means, requiring a significant investment effort in terms of quality or quantity in order to prepare, verify or present its contents. Such database will be protected by itself (if it fulfils the conditions of protection) without affecting the rights of third parties to the individual pieces of information, which are contained in the database.

Another measure to protect databases is the Copyright and Related Rights Act.⁴ While the *sui generis* right aims to cover the investment made in its creation, copyright protects the

³ Act on Databases of 27 July 2001.

⁴ Copyright and Related Rights Act (further: *CRRA*) of 4 February 1994.

(original) structure of the database. These two rights are independent and can be applied separately. They will however apply cumulatively if the conditions for both regimes are simultaneously met. Copyright ensures protection of various types of works, awarding protection to individual data as long as they are original (meaning that it is the author's own original creation and reflects his/her personality, where he/she has been able to express his/her creative freedom by making free and creative choices, and thus stamping his/her personal touch onto the work), and can be expressed/fixed in a material, concrete form. The broad understanding of these protection requirements facilitates extending protection to different types of data.

When considering such protection, a distinction needs to be made between, on the one hand, the database's contents (individual data), and, on the other hand, its structure and the investment made in its creation. Applied to databases, the criterion of originality is satisfied when, through the selection or arrangement of the data which it contains, its author expresses his/her creative ability in an original manner by making free and creative choices and thus adds his/her "personal touch". Individual data, understood as pieces of information, can be protected by copyright as long as they fulfil the conditions set out in the relevant legislation (in particular, fixation in a tangible form and originality). In effect, data such as a text or graphic form or a photo could more easily attract copyright protection than raw numbers and other purely quantitative information or even financial results, prices of products and similar market data.

In practice, copyright protection will only be confirmed *a posteriori* by a court. Such characteristic of copyright is particularly problematic in the context of data, posing issues in terms of legal certainty, especially for a transaction where data are a crucial element. In Polish law, for transactions involving databases, in addition to the aforementioned measures, the Act on Combating Unfair Competition⁵ and the Civil Code⁶ may also be of significance. Namely, the Act on Combating Unfair Competition enables protection of trade secrets which are protected under certain criteria fulfilled by the company. Moreover, the General Data Protection Regulation (GDPR) implemented in Poland may provide for restrictions as regarding transactions on data including collection and storage of data.

Part One: Basic principles: Character, source and nexus

1.1. General overview

As regards the Polish tax system, no specific law targeting taxation of big data transactions has been developed so far.

Having said that, the analysis of the character and source of the big data transactions will mainly rely on detailed analysis on a case-by-case basis of the contract under which a particular transaction is executed, of its legal character, and of the interpretation of the currently existing domestic and international tax laws.

⁵ Act on Combating Unfair Competition of 16 April 1993.

⁶ Civil Code of 23 April 1964.

1.2. Character

As far as the income tax perspective is concerned, the CITA may govern tax consequences of taxpayers' operations depending on their character. The adopted classification may influence the way that the underlying revenues, cost or withholding tax obligations are recognized. However, the CITA does not provide for separate, general conditions under which a given transaction could (as such) be classified as a sale, provision of a service or exploitation of a property right.

In turn, from the VAT perspective it will be essential to determine if the transaction concerns supply of goods or provision of services (see further comments in Part Five. below).

In many cases, defining a character of a transaction as a provision of service, sale (exchange) or lease of intangible property may be the domain of legal analysis. From the perspective of determining the character of big data transactions for tax purposes (in particular income tax purposes), analysis of the following issues may in particular be relevant:

- a) When and if big data transactions could be viewed as related to intangible property and
- b) When and if big data transactions could be viewed as a provision of service and if so – what type of service is concerned.

The outcome of the analysis may differ between raw data and structured or aggregated data transactions.

From the income tax perspective CITA refers specifically to certain intangible properties i.e., copyright and related rights, licenses, know-how and patents.⁷ Data as such or databases as such are not mentioned, but CITA recognizes certain services which may be related to data transactions (such as data processing or consulting services)

Still, CITA does not provide for any rules specifying when a given payment is made for a service. Here, likely the result of the given contract and legal analysis would be decisive. With respect to raw data transactions, lack of ownership of data could implicate that in practice transfer of data as described in the data broker case is classified as a service, of which the core is access to data. It is not however excluded to consider a transfer of data as a sale of intangible property, but here especially legal analysis would be necessary. The discussion may be similar in case of data that is somehow bundled in the database, although there are no analytics applied (e.g., acquisition of a set of raw data concerning stock exchange results or currency exchange or oil prices on different markets)⁸ or data feeds (although specific case law in this respect has not been identified). Also, in case of Performance Data Analytics, the fact that the after sales service contract is mainly performed through automatic software corrections without human involvement should rather not jeopardize the classification of a payment as made for a service.

The CITA does define what is meant by copyright. In practice, in order to determine if a transaction concerns copyright, reference to the CRRA will be made.⁹ Under the CRRA, a work that can be subject to the copyright protection is defined as every manifestation of creative activity of an individual character, established in any form, regardless of value, purpose and manner of expression.¹⁰ Moreover the types of works than can benefit from the copyrights protection is open.

⁷ Art. 16b of the CITA.

⁸ Individual tax ruling ref. No. 0114-KDIP2-1.4010.111.2018.2.PW.

⁹ Krajewska Aleksandra i in. "Podatek dochodowy od osób prawnych. Komentarz" 4th edition, Wolters Kluwer 2016.

¹⁰ Art. 1.1 of the CRRA.

In the case of big data transactions, it would therefore be essential to first analyze when, from the legal perspective, a copyright could be concerned.

As regards transactions covering raw data, although copyright protection has a broad scope, it requires an intellectual human intervention and the consciousness of achieving a result. Therefore, raw data as mentioned in the legal background (e.g., stock market data or unstructured data collected through sensors) would rather not be covered by the copyright protection under Polish law.

On the contrary, if data is structured or formatted in a database and the structure of a database has a unique and creative character, it could be potentially protected as a copyright.¹¹ Here, the copyright will not be given to the content of the database (i.e. the data), but to the structure in which they are organized.

In case of the transactions covering transfer or use of data structured through use of data analytic tools (as in case of the data feeds or performance analytics), it is rather unlikely to give the benefit of copyright protection for a work that has been created by the machine only (e.g., databases created through data analytic tools without human intervention), due to the fact that an author within the meaning of Polish law can only be a natural person. Thus, for example, in case the payment is made for data feeds (e.g., migration patterns) the payment made by Website Co could be viewed as a service payment (or potentially license payment for the non-copyright database).

Moreover, under Polish law, a copyright protection can be given to software, which could be relevant in case a company that developed an analytic tool decides for example to lease it.

As in the case of copyright, the CITA does not define the term license. Licenses that are surely covered by the term “license” under the CITA are those provided for in the CRRA and the Industrial Property Rights Act.

In commercial practice however, other licenses can also be identified – for example, license for the use of a non-copyright protected database. Also, such licenses should be considered licenses in the meaning of the CITA.¹²

As regards the structured database as described in the data broker case, from the perspective of cost or revenue recognition classification of payment under a license for the use of the copyright or non-copyright database should not make a difference. As mentioned, the term “license” is broad and leaves space to also include payments made for the use of a non-copyright protected databases.

Differences in treatment could however be observed in case of withholding tax obligations as they arise with respect to the payments made for the use of a copyright. Payment for the use of a non-copyright protected database should therefore not be treated as a “royalty” under the CITA. The question remains however if it could be classified as any other payment subject to WHT in Poland.

Distinction should be further made with respect to payments made on the basis of the end user license. In practice, in prevailing case law an “end-user license” is excluded from the scope of the term “royalty” and is not subject to WHT in Poland¹³ (which is in line with

¹¹ Rafał Sikroski “*Licencje na korzystanie z elektronicznych baz danych*”.

¹² The way of settlement of a license fee may however influence the way it is recognized for tax purposes (amortization vs. ongoing cost).

¹³ Individual tax rulings ref. No. IPPB5/4510-688/15-2/MK, ILPB4/4510-1-160/16-4/DS, 0114-KDIP2-1.4010.91.2018.1.PW. There is however a discussion if the right for WHT relief should be confirmed in this case with a certificate of residency of the taxpayer.

the OECD approach). It could also be disputable if such licenses are subject to amortization.¹⁴

According to case law, a license is of the “end-user” type where the agreement does not transfer the copyright, or does not give the right to exploit the copyright, and the user is only authorized to use the given copyright, making a copy to hard disks for a specific number of positions or make backups if necessary.¹⁵ Although most of the developed case law refers to a software end user-license, it is undoubtful that this discussion also concerns a license for the use of other works, such as copyright protected databases.¹⁶ Therefore, if a customer in the data broker case would use the structured database, protected as a copyright for its own purpose, payment for such license would rather not be treated as a royalty.

Under the CITA, know-how is understood as a value equivalent to the information obtained in relation to knowledge in an industrial, commercial, scientific or organizational field.¹⁷ In practice, there may be a vague boundary between know-how and provision of services, and analysis is necessary on a case-by-case basis.¹⁸

As it stems from the case law, know-how is understood as a set of information which is confident, valuable and identifiable in a proper form. Also, know-how is often divided into technical and non-technical know-how, where non-technical know-how is defined as information having an organizational, financial or commercial character useful in conducting business activity.¹⁹

The branch reporter has not identified tax case law relevant from the perspective of big data transactions in terms of know-how. Most of the identified tax case law regarding know-how concerns databases containing clients’ data. In practice one cannot exclude that big data transactions would – at least in some part – cover the transfer of know-how.

To determine if such situations occur it could be crucial to analyze if the subject of a transaction:

- a) has the character of an intangible asset in the form of knowledge, expertise, data with use instructions which allows one to achieve a certain commercial effect;
- b) can be valued;
- c) has been gained through experience;
- d) is of a material and confidential nature;
- e) is knowledge identified, established and transferable.²⁰

Another type of classification that may be relevant from the tax perspective, is considering if a given type of data transaction could be treated as a payment for a service.

In case a data transaction is classified as a service payment it would be relevant to verify its nature as the CITA binds the tax consequences with different types of services. For example, payments for certain services, such as data processing services or consulting services, could give rise to withholding tax in Poland²¹ and may lead to the limitation of

¹⁴ Jarosław Sekita, “Opodatkowanie licencji użytkownika końcowego”, PP 2016/2/7-10.

¹⁵ Individual tax ruling ref. No. ILPB4/423-6/12-2/DS, individual tax ruling ref. No. IBPBI/2/423-629/10/BG, individual tax ruling ref. No. 0114-KDIP2-1.4010.111.2018.2.PW.

¹⁶ Jarosław Sekita, “Opodatkowanie licencji użytkownika końcowego”, PP 2016/2/7-10.

¹⁷ Art. 16b.1.7 of the CITA.

¹⁸ See, e.g., ruling of the Administrative Court in Warsaw, ref. no. III SA/Wa 609/11.

¹⁹ Individual tax ruling ref. No. 0111-KDIB2-1.4010.207.2019.1.AR.

²⁰ Czerwiński Marcin, Sołtysiak Przemysław, „Skutki nabycia bazy klientów w podatku dochodowym od osób prawnych”, published in PP 2017/7/34-41.

²¹ Art. 21.1.2a of the CITA.

classifying expenses as deductible. This issue will be explored in more detail below in section 1.3 concerning source, and in Part Six below concerning tax accounting.

1.3. Source

Under the CITA, non-resident CIT taxpayers are subject to limited tax liability, only with respect to income derived from the sources located within the territory of the Republic of Poland.²²

The catalogue of the Polish-sourced income of non-resident taxpayers is open and includes, in particular income from:

- a) economic activity pursued in the Republic of Poland, including through a foreign establishment located in the Republic of Poland;
- b) immovable property located in the Republic of Poland or rights to such property, including from its disposal in whole or in part, or from disposal of any rights to such property;
- c) securities and derivatives other than securities admitted to public trading in the Republic of Poland as part of the regulated stock exchange market, including income obtained from the disposal of these securities or derivatives, or the exercise of rights resulting from them;
- d) the transfer of ownership of shares in a company, of all rights and obligations in a partnership without legal personality, or units in an investment fund or a collective investment undertaking, in which at least 50% of the value of assets is constituted, directly or indirectly, by immovable properties located in the Republic of Poland, or rights to such immovable properties;
- e) the receivables settled, including receivables put at the disposal, paid out or deducted by natural persons, legal persons, or organizational units without legal personality, that have their place of residence, registered office or management board in the Republic of Poland, irrespective of the place where the agreement was concluded and the place of performance;
- f) unrealized profits subject to so-called “exit tax”.

Point e) was added in 2017 as a result of a long-standing discussion if revenue from provision of certain intangible services should be viewed as derived in Poland, in particular when the service is fully performed outside of the territory of Poland. The application of point e) is limited to certain “qualified payments / receivables”.

The term “qualified payments” covers income / revenue that is subject to tax at the source, i.e., passive income (dividends, dividend like income,²³ interest, royalties including use of industrial, commercial or scientific equipment,²⁴ but also certain intangible services,²⁵ in particular data processing, market research, consulting and advertisement services, and other services of similar nature to the above mentioned ones. Currently, receivables resulting from those above transactions if settled by a Polish tax resident (in any form) are

²² Art. 3.2 of the CITA.

²³ Art. 22.1 of the CITA.

²⁴ Art. 21.1.1 of the CITA.

²⁵ Art. 21.1.2a of the CITA.

viewed as a Polish source income and are subject to 19% or 20% withholding tax, unless the DTT provides otherwise.²⁶

The CITA does not explain what is sufficient to conclude that the income has been derived from a source located on the territory of Poland, giving only a non-exhaustive catalogue of situations which will lead to the creation of limited tax liability. In all other cases, the issue is to some extent blurred. Would it suffice if the payment is made by a Polish payer? Or maybe one should take into account if the effect of the given service (activity) was used in Poland? Or maybe the key is if the given activity giving rise to income in Poland was performed in Poland?

In many cases this analysis is not conducted in detail, as the relevant DTT provisions usually shift tax rights to the country of residence unless the profit could be allocated to a PE in Poland or could be subject to WHT in Poland. The detailed discussion in this area was conducted as mentioned with respect to certain “qualified payments” and it has been resolved that it is sufficient that the payment is made by a Polish tax resident. But this leaves the discussion open (in particular relevant in non-treaty situations) for all the other types of income which are not related to a PE and cannot be classified as made for mentioned “qualified payments”.

Moreover, the fact that the payment-link is relevant for these payments, whereas place of performance is not, suggests that in other cases the payment-link does not have to be decisive. Such an approach is also supported in certain case law.²⁷ In other identified cases, administrative courts pointed out that it is unacceptable to conclude that the fact that result (effect) of the service was used in Poland is decisive for considering income as derived at the territory of Poland²⁸. However, this line of interpretation is also not uniform and opposing case law can be identified.²⁹ Also, the link based on the place where the services are performed may be difficult to apply as in the case of specific services it is simply not obvious (e.g., how to determine where the loan agreement giving rise to interest was performed).

In case of big data transactions, and in particular in non-treaty situations, this issue may be of crucial importance. If a data broker being a Polish tax resident would collect raw data through the API of a website owner (Website Co) located, for example, in Brazil (assuming the Brazilian contractor has no PE in Poland), it may be difficult to conclude if the Brazilian company derives income at the territory of Poland. It seems that the link with the territory of Poland in this case is too weak as it would actually only rely on the fact that the Polish data broker makes a payment. Unless such a payment would be considered as “qualified”, this fact would rather be insufficient. Also this case shows how misleading the analysis could be based on the place of performance of this service. Would it be the place where the server hosting the website is located? Or would it be the place where the website is registered? Or would it be the place where the Brazilian company has its seat? This case may be further analyzed from the perspective “if the effect of the service was used in Poland”. Here the conclusion could be positive if the data broker further uses the data to provide particular services in Poland. However, as mentioned above it is ambiguous to conclude that it would suffice to claim that Website Co derives income from sources located in Poland.

²⁶ Art. 22a of the CITA.

²⁷ E.g., judgement of the of Supreme Administrative Court ref. No. II FSK 2144/08.

²⁸ E.g., judgement of the of Supreme Administrative Court ref. No. II FSK 3243/12.

²⁹ E.g., judgement of the of Administrative Court of I SA/Kr 865/14. In this case, the court stated that the fact that the effect of services purchased by a Polish tax resident from non-Polish tax residents is used outside of the territory of Poland jeopardizes the thesis that a non-resident derived income in Poland.

The same analysis may also be conducted with respect to other types of big data transactions which could be classified as a service, e.g. payment for the data feeds. In this case again the only certain link with the territory of Poland could be that the payment is made by Information Site Co (if it was a Polish tax resident). This may suffice if the payment is considered qualified. If not, the discussion may possibly concern if the service was performed in Poland. The link which is based on the “performance” of the service in case of Animal Data Co seems to be more “trackable”. Here the data analytic tool is developed in the residence country of Animal Data Co, and it seems that the whole output that Information Site Co displays on its website is created actually in this location. Thus, it may be potentially easier to claim the service is performed outside of the territory of Poland.

If the service is conducted between two non-Polish residents it is unlikely to claim that the source of income was located in Poland simply by the fact that data which was structured through the use of analytical tool was collected in Poland or viewers of the data feed display were located in Poland – although in practice the location of the data object may be associated with a territory on which value has been created.

In terms of a PE, the CITA provides for a “traditional” PE definition, whereby the following assumptions, if met, could give rise to a PE in Poland:³⁰

- a) a fixed place of business, through which an entity having its registered seat or management in the territory of one state performs wholly or partly its activities in the territory of another state, and in particular a branch, representative office, office, factory, workshop or place of extraction of natural resources,
- b) a building site, construction, assembly or installation carried out in the territory of one country by an entity having its registered office or management in the territory of another country,
- c) a person who, on behalf of and for an entity having its registered office or central administration in one state, acts in the territory of another state, if that person has a power of attorney to conclude contracts in its name and effectively exercises that power of attorney

- unless the DTT to which the Republic of Poland is a party to, provides otherwise.

As Poland is a party to nearly 90 DTTs, and a PE is mainly interpreted with the guidance of the Commentary to the OECD MC (or UN MC), use of a PE concept is rarely tested in case law in non-treaty situations. Thus, potential application of a PE concept to big data transactions will be presented in more detail in Part Three. It is however worth noting that the domestic definition of the PE, though it at first glance seems to resemble the OECD MC’s PE, has some important features which makes its scope broader – in particular, it does not contain the “auxiliary or preparatory character” exception and it refers to “activity” as opposed to the “business activity” in the OECD Model.³¹

As mentioned above, one of the sources of income which are considered to be derived at the territory of Poland are those obtained from certain “qualified payments” being i.a. passive income and certain intangible services. Payments for “intangible services”, as well as, i.a., royalties and payments made for the use of industrial, commercial or scientific equipment and “know-how” are subject to 20% WHT in Poland. However, under most of

³⁰ Art. 4a.11 of the CITA.

³¹ H. Litwińczuk, „Międzynarodowe prawo podatkowe”, Warsaw 2020.

the DTTs, payments made for intangible services are classified as a business income and thus no effective taxation in Poland occurs in practice.³²

From the perspective of a big data transaction, the following may be of particular relevance:³³

- a) payments made for the use of a copyright
- b) payments made for the use of industrial, commercial or scientific equipment
- c) payments for data processing services
- d) payments made for advertising services
- e) payments made for market research
- f) payments for consulting services.

It should be pointed out that the list of payments that can be considered as made for intangible services is open and also “*other payments of similar nature*” can fall within its scope.

In terms of a license type of payments one should point out that its scope is limited to the payments made for the use of a copyright, i.e. it would not cover payment made for, e.g. a database which is not copyright protected.

With respect to payments made for the use of industrial, commercial or scientific equipment, analysis of the Polish case law existing on this matter leads to the conclusion that it is understood very broadly. However, in most of the cases it is rather identified with an asset which performs an auxiliary function within the industrial process understood as a sequence of mechanical or chemical actions used for mass production of goods. On these grounds, for example payments for the use of the servers or software are not associated with industrial equipment, which may be of importance in the case of, for example intragroup payments where a company is charged with the costs of use of the server on which the data analytic tool is hosted, or for the use of space in the data center as such.³⁴ The key division criteria seems to be the fact if the given equipment is used in the production process.³⁵

Data processing payments are not defined, although this could potentially be one of the most apt provisions in the CITA in terms of big data transactions. In practice, the dictionary meaning is followed to define the scope of data processing services. In this respect data processing is understood as transformation of the content and form of input data by means of systematic operations in order to obtain results in a predetermined form. The distinction is made between numerical (relatively complex algorithms and small amounts of data) and systemic (relatively simple algorithms and large amounts of data) processing.

Similarly there is no definition of consulting services or market research services, however the meaning of the latter is also decoded based on the dictionary meaning as analysis of customer needs and requirements.

On the grounds of such interpretation, tax authorities claim that in the case of consulting services, data processing services, as well as market research services, generally

³² If the payment is in the scope of qualified payments application of WHT relief will depend on possession of a valid certificate of residency of the taxpayer. Moreover, as of 1 January 2019, Poland introduced a highly complex withholding tax reform, under which the “*relief at source*” mechanism was changed into the “*pay and refund*” mechanism for qualified payments which value exceeds PLN 2 m in a given year per taxpayer. The application of the new regime is currently suspended till 31 December 2021 and will enter into force as of 1 January 2022.

³³ Art. 21.1 of the CITA.

³⁴ E.g., judgement of the of Supreme Administrative Court, ref. No. II FSK 1120/17

³⁵ Judgement of the of District Administrative Court in Gorzów Wielkopolski, ref. No. I SA/Go 537/18.

individualization of information, to which access is purchased would have to take place.³⁶

Putting it into the big data transactions perspective, there is a possibility that in case certain output produced by the analytic tool contains some kind of adaptation to the purchaser's request, some kind of individualization, it could be potentially classified as payment for the abovementioned intangible services. However, purchase of data even if structured or aggregated, but in the manner, format or content that is identical to all potential purchasers, is less likely to fall under the scope.³⁷

1.4. Nexus

Currently, Polish tax law does not provide for a separate tax "nexus" concept, such as significant digital presence tax nexus, which would give rise to taxation in Poland.

Nevertheless, an attempt to link digital activities with presence in Poland was made with the recent introduction of a so-called VOD levy. The VOD levy came into force starting 1 July 2020 as part of the broad range of legislative amendments designed to countermeasure the negative impact of the COVID-19 epidemic.³⁸ Though VOD levy is not formally a tax, it introduces the obligation for entities providing audiovisual service on demand to pay a levy equal to 1.5% of revenue derived from subscription payments (or advertising revenue, depending on which is higher). When the service provider is an entity seated in another European Union member state, the basis for the levy is the revenue derived in the territory of Poland.

On the basis of the above it could be surmised that for the purpose of the VOD levy, the nexus was functionally established based on payments from Poland.

Part Two: Application of treaty principles

2.1. General overview

Most of the DTTs concluded follow the OECD Model Convention but there are some that are based on the UN Model. Poland has also ratified the MLI, the provisions of which systematically make changes in the respective "covered tax agreements".

In terms of application of given DTT provisions, although the Commentary to the OECD MC is not a source of law in Poland, it contains a very practical guidance in application of relevant DTT provisions. As such it is frequently reached for by both the tax administration and courts, as well as taxpayers in tax disputes.

From the perspective of big data transactions, application of article 5 (PE), article 7 (business profit) and article 12 or sometimes article 13 (royalties) of a typical DTT should be considered, including their variations based on the specific DTT:

³⁶ Individual tax ruling ref. No. 0114-KDIP2-1.4010.111.2018.2.PW.

³⁷ Individual tax ruling ref. No. 0114-KDIP2-1.4010.521.2018.1.MR.

³⁸ Art. 16 of the Act of 14 May 2020 on amending selected acts on protective measures in relation to the spread of the SARS-CoV-2 virus.

- a) inclusion of a payment for the use of industrial, commercial or scientific equipment³⁹ in article 12
- b) inclusion of technical fees in article 12.⁴⁰

Poland has reserved the right to tax royalties at source,⁴¹ and although the tax rate differs between DTTs, it is usually between 5%-10%. Application of the treaty tax rate is not unconditional and usually depends on the taxpayer being the beneficial owner of the payment, as well as the tax remitter holding a valid certificate of residency of the taxpayer. Poland has also made the relevant reservation to article 12 of the OECD MC that it would treat payments made for the use of industrial, commercial or scientific equipment as a royalty.⁴²

The most common shift of place of taxation (from “at source” to “residence”) under a typical DTT concerns payments for intangible services. As mentioned above, revenues derived from provision of certain intangible services, such as data processing or consulting services, are subject to 20% WHT in Poland. At the same time, under most DTTs concluded by Poland they are considered business profit.

Some DTTs include so-called technical services in article 12 (13), which also may potentially impact the taxation of the given revenue.

Moreover, various tax disputes concern taxation at source of the payments made for the use of software in terms of application of article 12 of the typical DTT, as well as when a given revenue can be classified as derived from the use of industrial, commercial or scientific equipment.

2.2. Detailed comments

In terms of big data transactions, if revenue is considered to be derived on the territory of Poland from provision of services, then – under the typical article 7 of the DTT concluded by Poland – it would normally be classified as business profit, subject to tax in the residence country.⁴³

The most important exceptions from the big data transaction perspective concern the situation where a revenue is considered a PE profit or a royalty.

In terms of a royalty type of income, some DTTs concluded by Poland provide for certain variations that may be relevant for big data transactions.

In particular, many of the DTTs concluded by Poland include the revenues derived from the use of industrial, commercial or scientific equipment in article 12, which may result in withholding tax in Poland. DTTs do not provide for a definition of such equipment. Thus, it is necessary to refer to the domestic interpretation of this term – more detailed comments in this respect were presented above in Part Two “Source” – but in practice it is rather associated with a production process; thus its application to big data transactions may be limited.

Also, certain DTTs concluded by Poland (e.g. with India) include payments for so-called technical fees as subject to withholding tax. The term “technical fees” in practice covers

³⁹ Most of the DTTs provide for WHT taxation, but exceptions can be also identified, e.g. DTT with UK and France.

⁴⁰ E.g., the DTT between the Republic of Poland and India.

⁴¹ Commentary to the OECD MC, commentary on art. 12, point 36.

⁴² Commentary to the OECD MC, commentary on art. 12, point 41.4.

⁴³ Valid certificate of residency of the taxpayer should be possessed by the entity making the payment.

payments made for managerial, technical and consulting services. What is understood as “technical fees” is not precise. The OECD MC does not provide any guidance. Also, the CITA does not contain any legal definition of such services. The Polish administrative court claims that a technical character of a service is when its essence is to provide technical knowledge, expertise in specific fields or to prepare technical projects, and that it may be related to machinery or equipment.⁴⁴

Even if a given revenue could be classified as derived from provision of technical services, it would still have to be considered as subject to withholding tax in Poland based on domestic provisions to be effectively taxed at source. Here, the issue is even more blurred as the catalogue of intangible services that may be subject to WHT in Poland is open and moreover refers to certain specifically listed services (e.g. consulting services) and “other services of similar nature”. As case law shows, there has been situations where given revenue could be considered in the scope of “technical fees”, however it was beyond the scope of “intangible services” and other services of similar nature in the meaning of the CITA.⁴⁵

Lastly, technical fees also cover revenues derived from provision of consulting services – which are in the scope of intangible services subject to WHT in Poland. Thus, if a Polish tax resident acquires consulting services on consumer behavior which are based on, e.g. performance data analytics, they could be subject to WHT in Poland under “technical fees” clause if such is provided by the DTT.⁴⁶

As mentioned above, there is also an ongoing discussion if payments made for the use of software could be viewed as royalties in the meaning of article 12. The wording of article 12 refers only to payments made “*for the use of or the right to use any copyright of literary, artistic or scientific work*”, not listing payments made for the use of software separately.⁴⁷ At the same time, under the CRRRA, software is treated as separate from literary work, but it is protected like literary work.⁴⁸ On these grounds, the Administrative Courts indicate that payments made for the use of the copyright cannot be leveled with the payments made for the use of literary work.⁴⁹ This may be an important point of analysis in terms of big data when a copyright protected software (algorithm allowing for specific use of data or selection of data) is developed and licensed on a non-end user basis.

With respect to a PE, most of the DTTs concluded by Poland are based on the trichotomic character of the PE, i.e. a traditional, constructing and agency PE with typical exclusions from the PE definitions being the auxiliary character of business activity and activity of an independent agent. It should be noted that Poland has opted not to include in its Covered Tax Agreements provisions preventing artificial avoidance of the PE status as provided by Articles 12-15 of the MLI.

As voiced by many scholars, academia as well as organizations such as the OECD, the PE concept in the way that it is drafted and interpreted by the Commentary to the OECD MC, is outdated as it does not fit to the current digital economy. Therefore, its application to big data transactions is at this stage rather limited. There are however certain interesting

⁴⁴ Supreme Administrative Court, ref. No. II FSK 766/18.

⁴⁵ Administrative Court in Warsaw, ref No. III SA/Wa 2968/16.

⁴⁶ It would be however important to carefully analyze the scope of the transaction as it may happen that the character of services will rather imply “know-how” than consulting character.

⁴⁷ It is however different under the DTT with Kazakhstan, which specifically mentions payment for the use of software in art. 12.

⁴⁸ Arts. 1.2 and 74.1 of the Copyright Act.

⁴⁹ Supreme Administrative Court, ruling ref No. II FSK 2677/13.

points in the Commentary to the OECD MC which may be relevant for at least “some” part of the big data discussions.

As the Commentary to the OECD MC explains, in general, if a business activity of an enterprise of one country is conducted through a server located in the second country, then under certain conditions such server could create a PE in the second country. These conditions are classical for any PE existence and cover fixed⁵⁰ and permanent place of business, as well as the non-auxiliary and non-preparatory character of activity conducted through it.

On these grounds, in case of performance of data analytics services provided by Service Co, if an analytic software is hosted on Service Co's own servers located in data centers, then it is possible that such data centers could create a sufficient nexus to establish a PE, e.g. in Poland, even if there is no personnel that operates the server.⁵¹

It would be necessary to first determine if the business of Service Co conducted through servers is preparatory or auxiliary. The Commentary to the OECD MC lists “classical” auxiliary or preparatory activities from the perspective of e-commerce operations. It mentions that activities such as gathering market data or supplying information could be considered preparatory or auxiliary. The conclusion could be different if in practice they form an essential and significant part of the business activity.⁵² Not resolving this issue, in terms of Service Co the data center is used to host an analytic tool, which enables Service Co to provide its core business being remote monitoring and failure prediction services.

What could further influence the PE status is, i.a., the fact that the analytic software is hosted on a third-party cloud hosting service provider. In such a case it may be difficult to claim that the server and location are at the disposal of a company.⁵³ Also, if the data centers are located in various jurisdictions, there may be doubts if the objective PE test is met, i.e. if the presence in each country is significant enough to claim that it created a place of business. If the data centers are owned by a separate affiliate of Service Co, the main issue would be if those data centers are at the disposal of Service Co.

In the Service Co case it may be difficult to determine a PE based on the location of sensors which collect the performance data subsequently analyzed through the analytic tool. Collection of data may be deemed as of preparatory nature. Moreover, their scattered locations in multiple jurisdictions may also hamper meeting the objective PE test.

Lastly, it should be pointed out that the Commentary to the OECD MC makes it clear that a website as such cannot be considered a PE.⁵⁴ Thus, a website registered in Poland through which data feeds produced in the other country are displayed would rather not be considered a PE of a non-resident as it creates an insufficient link to determine a place in which a business activity is conducted.⁵⁵

⁵⁰ In this respect, the Commentary to the OECD MC literally states that it does not mean that the server cannot be moved, it matters if it was moved before the sufficient period of time to consider it “fixed” lapsed.

⁵¹ Commentary to the OECD MC, Commentary on art. 5, pt. 127.

⁵² Commentary to the OECD MC, Commentary on art. 5, pts. 128-130.

⁵³ Commentary to the OECD MC, Commentary on art. 5, pt. 124.

⁵⁴ Commentary to the OECD MC, Commentary on art. 5, pt. 124.

⁵⁵ Commentary to the OECD MC, Commentary on art. 5, pt. 123.

Part Three: Transfer pricing

There are no specific provisions related to big data transactions or to any data, digital or other in the Polish transfer pricing regulations. The universal interpretation of the arm's length principle as stipulated in the OECD Guideline, generally applies and is, in a nutshell, transposed to the Polish transfer pricing regime.

When determining the most appropriate transfer pricing method for the relevant intercompany transactions involving big data (collection, analysis, use, sales or otherwise sharing, usage and interaction) the general transfer pricing principles should apply, such as the appropriate recognition of the functional profiles of the involved parties, as well as the provisions on DEMPE analysis for intangible properties and hard to value intangibles, if big data might be recognized as such. Also, the place in the big data value chain should be considered, as well as the nature and quality of the big data used in the transaction between related parties: whether it is raw big data, or big data after being automatically aggregated, cleaned of erroneous or misleading information and converted into a common format, or big data that has been thoroughly analyzed using AI (artificial intelligence) or ML (machine learning) tools and algorithms that are ready to use for business decision-making processes.

There is hardly any case law in Poland related to transfer pricing involving big data or any digital data, to be exact. This is also a fairly new transfer pricing aspect for the tax authorities and tax inspectors who may face this issue during tax audits. Looking at the past tax audits' and case law related to intangible services or intangible properties' transactions, one may assume that the transactions related to big data sharing, usage or other interaction will be recognized by the authorities taking into account the following factors:

- a very traditional, legal and formal approach as to what big data is, if there is a legal definition, how it is recognized for CIT purposes, whether it is already an intangible property or simply an intangible service between the related parties,
- legal ownership of big data, also taking into account other, non-transfer pricing or non-tax legal acts, including GDPR,
- physical presence of the related parties in Poland, what are their resources, whether they have the capability to control the processes related to big data, human resources to manage the processes etc.,
- ownership of the tools, engines and programs that allow collecting and analyzing the data, as well as the physical presence of the servers, where the data is stored.

Having said that, in the Data Brokers / Information Resellers case, the transaction between Broker Co and Website Co as related parties, would most likely be recognized as a service transaction, with Website Co as the tested party for the cost-plus method. Key assumptions and pricing method determination factors are: the key value driver is the data analytics software developed by Broker Co and the big data collected by Website Co is rapidly losing its value for the Customers, depending on the nature of the big data collected. Also, the GDPR should be taken into account, limiting the time and scope of data usability.

In the Data Feeds case, where Information Site Co is displaying the data feed contracted from Animal Data Co, and where Information Site Co has no or very limited access to software and algorithms, the fee between the two related parties can be set as a license fee. If Information Site Co can earn revenues, not from their user, but from, e.g. advertising on their website, using data for other commercial businesses, the license fee can be set as the percentage of the revenues earned via the website.

What also needs to be considered is if Animal Data Co can commercialize the big

data via other business channels, e.g. selling the data to the public sector, government agencies, academics, other research centers, etc. If Animal Data Co is an NGO earning revenues from donations of users who click on Information Site Co's website, the pricing model can be reversed, i.e. it might be Animal Data Co paying a commission to Information Site Co for access to their website users and for promoting Animal Data Co's data and website. Depending on the Information Site Co's business, if it is a commercial extension of the NGO, if it has other sources of income or is only dedicated to promoting Animal Data Co's activities, the pricing method could also be a cost-base method or a profit split method.

In the Performance Data Analytics case, the key factors determining the transfer pricing method selection are:

- if the after-sales services are contracted only with the equipment purchases – there is no service agreement between Service Co and Equipment Co (e.g. for the after-sales services under the guarantee period),
- if Service Co is servicing both the heavy equipment and the consumer appliance equipment and if there is a contractual difference between the two under the contracts with the customers / consumers,
- if the sensors and data analytics tools were developed only by Service Co or if there was any contribution from Equipment Co,
- if the data collected from sensors and the data analytics tools is useful only to Service Co for the after-sales services or also to Equipment Co (for the sake of future product development or improvement).

Both Equipment Co and Service Co give access to big data to the other party – Equipment Co shares their client database with Service Co, whereas Service Co may share the data with Equipment Co from sensors and data analytics tools for analysis of the raw data from the sensors installed in the equipment. Both sides benefit from the big data selected from the sensors – Service Co optimizes their costs of providing the services, whereas Equipment Co is able to improve their products. Depending on how other transactions between Equipment Co and Service Co are set (if any), and the mutual benefits from the big data extracted from the sensors, there might be a transaction set between the two parties. There are, however, too many variables to determine the most appropriate method based on the background set in the case.

Part Four: Special regimes

At present the Polish tax system includes two notable incentives: R&D relief and Innovation Box regime.

In general, R&D relief allows for deduction from the taxable base select types of expenses (so-called “qualified expenses”) which were incurred by the taxpayer for research and development activities, despite the fact that those expenses were already deducted once. Depending on the size of the taxpayer, the amount of deduction of the qualified expenses cannot exceed 150 or 100 percent of the amount of those expenses.

To apply the R&D relief, the taxpayer has to conduct activities in the scope of research and development, as well as verify which expenses can be considered as qualified expenses. R&D activities mean creative activity involving scientific research or development works,

undertaken in a systematic way aimed at increasing knowledge resources and using knowledge resources to create new applications.

The R&D relief provisions also specify the categories of expenses which may be deemed as qualified expenses and include (with specific restrictions), i.a.:

- employment costs in the part they relate to time spent by the employee on taxpayer's R&D activities,
- purchase of materials and special equipment used in R&D activities,
- purchase of opinions / advisory services from select types of entities (e.g. universities or scientific institutes),
- costs related to obtaining and maintaining patents, utility model protection, industrial design registration.

Under the IP Box regime, a taxpayer is allowed taxation with a preferential 5% CIT rate of qualified income derived from qualified IP rights.

IP Box provisions contain a closed catalogue of IP rights which may constitute qualified intellectual property rights, and include, i.a., copyright to computer program and patents.

The intellectual property rights, to be eligible for IP Box, must be subject to legal protection based on separate acts or international treaties to which Poland and / or the EU is a party. Applying the IP Box incentive is possible when the taxpayer is the sole owner, co-owner or has exclusive license to use the qualified intellectual property right.⁵⁶

The tax base for IP Box is determined as qualified income derived from the qualified intellectual property rights. The IP Box provisions also provide a closed catalogue of qualified income, which consists of income from:

- fees or receivables resulting from a licensing agreement which relates to a qualified intellectual property right,
- sale of qualified intellectual property rights,
- sale of goods or services for the part the price incorporates a qualified intellectual property right,
- re-compensation for infringing qualified intellectual property rights if such compensation was received as a result of litigation.

The definition of research and development activities for R&D relief purposes gives room for various IT business types to apply the R&D relief in practice. To date one could find individual tax rulings which confirm that certain data processing solutions, including in terms of big data, can in fact be eligible for the R&D relief.⁵⁷

Though types of qualified intellectual property rights are defined somewhat more clearly for the purpose of application of the IP Box incentive, the application of IP Box to IT business activity may still be unclear in many instances, in particular in terms of computer programs.

At present it cannot be fully defined what constitutes copyright to a computer program. In practice, Polish tax authorities provide certain pointers in the form of official clarifications regarding that term. The understanding of what constitutes a computer program proposed by the Ministry of Finance exceeds just the source code and includes in addition

⁵⁶ K. Żagun, „Innovation Box – domknięcie łańcucha zachęt fiskalnych na działalność rozwojową”, LEX/el. 2019).

⁵⁷ E.g. individual tax ruling no. 0114-KDIP2-1.4010.63.2019.2.MR.

different types of software and interface (if it constitutes an integral part of the software).⁵⁸ Consequently, it could potentially allow for data processing activities, or some of its parts, to also benefit from the IP Box incentive.

In conclusion, big data solutions could potentially benefit from tax incentives in Poland in the form of R&D relief, as well as IP Box provided that the statutory requirements are met. The practice shows that certain aspects of big data solutions could in fact meet those requirements (in particular, in terms of R&D relief).

Part Five: Indirect Tax

The Polish VAT Act,⁵⁹ as an implementation of the VAT Directive,⁶⁰ does not provide any specific regulations related directly to tax treatment of big data collection, sale, exchange and any other activities referring to big data. Moreover, it seems that in Poland this subject is still in the course of discussion and the tax practice appears to have not yet been framed.

Therefore, the below considerations are based in particular on general rules arising from our interpretation of Polish VAT provisions and specified Court of Justice of the European Union (further: “CJEU”) judgements.⁶¹

Article 5 of the Polish VAT Act specifies the categories of transactions that are subject to VAT. Under article 5 (1) of Polish VAT Act, VAT transactions are, inter alia, supply of goods for consideration and the provision of services within the territory of the country.

Simultaneously, according to article 8 (1) of Polish VAT Act, the provision of services shall be understood as any performance towards a natural person, a legal person or an organizational entity without a legal personality, including also inter alia:

- 1) *a transfer of rights to intangible assets, regardless of the form of such act in law;*
- 2) *an obligation to refrain from performing an activity or tolerating an activity or a situation.*

In order to determine if a given transaction constitutes a taxable provision of services, two conditions have to be analyzed as a rule: (i) whether the service is supplied for consideration; (ii) whether the service is supplied by a taxable person acting as such.

Nevertheless, on the basis of CJEU jurisprudence, it should be noted that the basis of assessment for a provision of services is everything which makes up the consideration for the service, and that provision of services is therefore taxable only if there is a direct link between the service provided and the consideration received.

Bearing in mind the provisions stated in the Polish VAT Act, there are strong indicators to consider activities related to big data as services. Therefore, to determine whether it constitutes a VAT taxable provision of services all conditions referred to previously, should be taken into account.

Without prejudice to the above, the potential statement that big data transactions should be treated as VAT taxable could entail specific questions regarding in particular

⁵⁸ M. Bernat, „IP BOX również w Polsce: preferencyjne opodatkowanie dochodów z praw własności intelektualnej”, LEX/el. 2018.

⁵⁹ The Goods and Services Tax Act of 11 March 2004 (further: “Polish VAT Act”).

⁶⁰ Council Directive 2006/112/EC of 28 November on the common system of value added tax (OJ L 347, 11.12.2006, p.1, further: “VAT Directive”).

⁶¹ E.g., judgements in Case C-16/93 *Tolsma*, Case C-174/00 *Kennemer Golf*, Case C-330/95 *Goldsmiths*.

the assessment of the tax base, the type of service, as well as identification of the place of taxation; among others, if such supply may be treated as electronic services according to article 7 of Council Implementing Regulation (EU) No. 282/2011,⁶² or rather if it should be recognized on general rules.

As far as the barter transactions are concerned, one should note that, pursuant to judgments of the CJEU,⁶³ barter contracts and transactions for which the consideration is expressed in money are economically speaking two identical situations. According to the CJEU, not only money, but also benefits which are worth money, can constitute a sort of consideration. Therefore, even an exchange of two supplies of services can be the basis of taxable transaction. Nevertheless, the value of service received should be expressed in monetary terms. What is more, the received benefit should not be difficult to quantify and be sort of uncertain. Secondly, in order to reflect a taxable barter transaction a direct link between each of the supplies of services should exist. Such direct link exists if there is a legal relationship between the service provider and the recipient, pursuant to which there is reciprocal performance, the remuneration received by the service provider constituting the value actually given in return for the services supplied to the recipient.

In light of the above, in the first scenario where Information Site Co receives for a monthly fee a continuous feed showing migration patterns and predictions from Animal Data Co, all conditions to consider such activity as acquisition of VAT-able services, seems to be fulfilled.

Nevertheless, different conclusions could result from the activity existing between Information Site Co and Animal Data Co in the second scenario. In this case Animal Data Co does not charge Information Site Co a fee for the data feed, but it requires Information Site Co to prominently indicate on its website that Animal Data Co is the source of the information, and to include a link to Animal Data Co's website. Moreover, Information Site Co supplies Animal Data Co with personally identifiable data relating to visitors to the website who view the animal migration information. Later, Animal Data Co actively solicits donations from users who click through its website using data received from Information Site Co target solicitation requests.

Bearing the above in mind, in order to assess if such exchange should be recognized as a transaction subject to VAT, all of the above mentioned CJEU's conditions have to be verified. The preliminary analysis leads to conclude in particular whether the value of the potential service received could be expressed in monetary terms, as well as if the benefit could be quantified. Additionally, the analysis should also be conducted in light of the existence of a direct link between the service provided and the "consideration" received.

Moreover, as noticed in the section above, potential conclusions that such arrangement constitutes a taxable barter transaction entail particular doubts in the area of tax base assessment, as well as the type of services.⁶⁴ Simultaneously, the type / name of the service is important to correctly identify the place of supply.

⁶² Council Implementing Regulation (EU) No. 282/2011 of 15 March 2011 laying down implementing measures for Directive 2006/112/EC on the common system of value added tax.

⁶³ E.g., judgements in Case C-330/95 *Goldsmiths*, C-283/12 *Serebryannay vek* or C-432/15 *Bastova*.

⁶⁴ The issue of using personal data as a kind of currency was subject of discussion of Member States during the 111th meeting of VAT Committee the result of which are the guidelines (Document B- taxud.c.1 (2019)3722302-967).

Part Six: Tax accounting

From the perspective of revenue recognition in terms of big data transactions, the main point of discussion would cover analysis if the revenue derived from big data transactions should be considered capital gains source of income or business source of income. As of 1 January 2018, Poland introduced a new law, based on which sources of revenues are spilt between so-called capital gains and dividend, dividend-like income, and other, so-called business income. The capital gains source of income covers, i.a., revenues related to property rights, such as copyrights, license or know-how, excluding revenues from license that are directly related to non-capital gains revenues. Thus, depending on the situation, revenues, as well as related costs derived from big data transactions, could fall under capital gains source of income.

As far as tax amortization is concerned, intangible assets can only be subject to amortization if they have been acquired (and meet the statutory conditions to be considered an intangible asset).⁶⁵ From this perspective, if a company for example developed a software that is copyright protected, cost of development will be recognized on an on-going basis.

⁶⁵ Art. 16b of the CITA.

Summary and conclusions

Big data consists of the exploitation of information and knowledge contained in electronic media for several purposes, especially on research and economic activity. The calculation capacity and processing speed that technological developments are providing, allow computer systems to carry out procedures that humans did not perform. As a result, the ability to obtain information and to produce knowledge has become faster, deeper and more comprehensive. Knowledge is the basis of value generation, economic growth and well-being, where big data plays a central role.

The recursive procedures, making endless attempts of data combinations until finding a possibility to produce a certain result, as well as the possibility of algorithms to determine historical trends and cause-effect relationships in the past, allow the development of predictive systems, which can be improved successively. These possibilities have created the concept of artificial intelligence.

Both concepts are challenges for law, especially in what concerns copyright protection.² If there is artificial intelligence, a computer can operate creatively, generating original works. But who would be the copyright holder?

The Portuguese law protects six rights:

1. Copyright in favour of creators of original databases;
2. The *sui generis* right of investors and database manufacturers, even when they do not meet the requirements of protection as originals. Three forms of their profitability and negotiation are identified:
 - 2.1. The final transmission of the right, either in physical form or by making full copy available online;
 - 2.2. The availability through licensing, on a mandatory and temporary basis;
 - 2.3. The performance of identical business operations of the database manufacturer in the acquisition of the data necessary for its construction, maintenance and updating.
3. On software operating data, which is likely to be protected by copyright;
4. On the works and data constituting the content of databases, including copyright and its ownership;
5. With regard to artificial intelligence, Portuguese law attributes the ownership of the rights to the authors of the algorithms and programs;
6. The rights of creators and software producers.

¹ Jurist at the center for tax studies, in the Portuguese finance ministry; professor and international tax consultant.

² According to the EC "Like the steam engine or electricity in the past, AI is transforming our world, our society and our industry". SWD (2018)137final.

In Portuguese tax law, the income associated with big data may be classified as i) copyright, ii) royalties, iii) provision of services, iv) profit of a company, or v) capital gains. The first two categories include income arising from the use or concession of use, as well as the granting of rights protected by copyright or industrial property, respectively. This is where the income from databases protected by copyright and industrial property law, previously referenced, are included.

But the characterization as royalties extends to situations when, in the absence of those immaterial rights, a previously acquired knowledge is available, bearing in mind the two following clarifications:

- i) This knowledge must have been acquired outside the scope of the contractual relationship and must be prior to it;
- ii) To be framed in this category of income, the object of the contractual relationship must be the mere provision of knowledge and not its practical application within the activity of the acquirer.

In general, there is a provision of services in the case of technical assistance resulting from knowledge acquired in the context of the contractual relationship, or when there is an acquisition of a service execution involving not only the provision of knowledge, but also its practical application or incorporation into the acquirer's procedures.

Introduction: Legal background

Legal protection of databases

Data, information and knowledge

Data are only supports that, when interpreted, generate information³ and knowledge⁴ in quantity and speed exponentiated by the technological revolution.⁵

Doctrine and legislation protect information and knowledge, but enshrine their free movement, so that they can be a factor of production of knowledge.⁶ Directive 95/46/EC is presented as an instrument of the four freedoms of the internal market.⁷ In the USA, the

³ "Information is the result of some form of data processing", these being "simply...the raw material for this knowledge". Venâncio, P.D. (2012). *Das Compilações às Bases de Dados Enquanto Objetos de Propriedade Intelectual*. Scientia Jurídica, Tomo LXI, n.º 330, setembro/dezembro. Universidade do Minho, Braga, p. 598.

⁴ Knowledge is the result "of the human being's intellectual appreciation of the information available". Venâncio. (2012). Op. Cit., p. 599.

⁵ Janssen and Dumortier: "knowledge, which the addressee derives from the information through his own effort: The contribution of the human mind to the information brought to it". Janssen, K. and Dumortier, J. (2006). *The Protection of Maps and the United States by Copyright and the Sui Generis Right*. The John Marshall Journal of Information Technology & Privacy Law. <https://repository.jmls.edu/jitpl/vol24/iss2/2/>, p. 197.

⁶ In the "Bermuda Principles, of 1996, a system of sharing was established within the context of the human genome project, by publishing data on genetic sequences. This model has been followed in other investigations". Tavares, P. R. (2017). *Bases de Dados de Bioinformática: A (Im)possível Proteção Pelo Direito de Autor*. Revista de Direito Intelectual, n.º 01-2017. Almedina, Coimbra, p. 263.

⁷ Pereira, A.L.D. (2018). *Big Data e E-Health e "Autodeterminação Informativa"*, p. 54.

"free flow of information" is enshrined as a factor of scientific and economic progress.⁸

Within the EU, the free movement of data is part of the principle of freedom of information.⁹ Some doctrine fears the "*tendency to monopolize*" as an effect of the legal protection of databases.¹⁰ It is advocated that access to data is in the field of human rights.¹¹

Databases – definition

English law defines a database as "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means."¹² Three parts are distinguished:

- i) The objects of databases are works, data or other elements, including books, music, cinematographic works, etc.¹³ Electronic data are no more than raw records, although containing information that is not accessible. The databases are organised structures that allow such access;¹⁴
- ii) The systematic and methodical arrangement, which is the central and defining element, giving unity to the database. Metadata and index are fundamental in that organization.¹⁵ Both allow users to operate on data and extract information.¹⁶ This structuring of the database is done through the database management system (DBMS).¹⁷ It is the organization that distinguishes the database from mere raw data storages;^{18 19}

⁸ Pereira. (2006). Bases de Dados e Direito Sui Generis. Direito Industrial, Volume VII. Almedina, Coimbra, p. 385. In the USA, there is no protection of databases, identical in content to the EU.

⁹ In the Magill case and the "*fundamental principle of freedom of information*". Ascensão. J.O. (2001). Bases de dados Eletrónicas: O Estado da Questão em Portugal e na Europa. Revista da FDUL. Volume XLII. Coimbra Editora. Pp. 749/750.

¹⁰ Marques, J.P.R. (2007). *Biotechnologia(s) e Propriedade Intelectual*. Volume II. Coleção Teses. Almedina, Coimbra. pages 916/7. "Free access to data...ensures...the minimum conditions for scientific progress." Ascensão. Op. cit., p. 738.

¹¹ Ruiz, E.B. (2009). *El Derecho Sui Generis Sobre Bases de Datos*. Aranzadi. Thomson Reuters. Navarra, pp. 38-40.

¹² Transposes Directive 96/9/EC (art. 1(2)), inspiring on WIPO, focusing on selection, organization and ordination requirements. Ruiz. (2009). Op. cit., p. 38.

¹³ The directive and the Portuguese law use the concept "collections", *although the* WTO TRIPS Agreement uses the concept "compilations" as well as the draft of the 3rd WIPO Treaty, of 1996, which also uses the concept "compilations". The US Copyright Law of 1976, Title 17, uses "compilations", such as the UK, prior to the EU Directive. Mello. A.S. (1999). *Tutela Jurídica das Bases de Dados (A Transposição da Diretiva 96/9/CE)*. Direito da Sociedade da Informação, Volume I, Coimbra Editora, pp. 116-118.

¹⁴ Ascensão: "Databases are not collections or sets – they are structures for ordination of materials where the content is disregarded. Only selection and ordination criteria are relevant". Ascensão. (2001). Op. cit., p. 738.

¹⁵ Metadata are names of categories or data species. They are data on data, "data describing data". Venâncio. Op. cit., p. 608. "They are "keywords imbued in the HTML codes of a network site that allow Internet search engines to catalog the contents of the network sites". Pereira. (2002). *A Liberdade de Navegação na Internet*. "Browsers", *Hyperlinks*", "Meta-Tags". FDUC, p. 248.

¹⁶ "Database is a collection of records stored in a computer's memory unit in a systematic way". Venâncio. (2012). Op. cit., p. 609.

¹⁷ The DBMS, in addition to "providing the user an abstract representation of the data 'also allows' multiple views of the database". Venâncio. (2012). Op. cit., p. 609.

¹⁸ When data is "*merely piled up, without any criteria*", *there is no database*. Marques. Op. cit., page 863.

¹⁹ Marques. Op. cit., p. 902: "like the establishment, a database shall be based on a set of data...articulated and interrelated...and cannot be extended to a set equivalent to the sum of the individually considered parts".

- iii) Susceptibility of individual access by electronic or other means. It is detached the autonomy of the works and data in relation to the database, which are valid for their individual identity.²⁰ They must be accessible by themselves, autonomously, and users can know their identity separately to access them directly.²¹ This requirement determines that data must not be “merged or mixed”.²² Data which does not meet this requirement does not constitute a database.²³

Legal regime for protection

Portuguese law distinguishes two areas of protection:²⁴

- i) *Intellectual property law* for “*intellectual creations*”, or industrial creation, in case of new inventions.²⁵ Creativity refers to the structure or organization,²⁶ selection or arrangement of the data and not to it,²⁷ and may take various forms,²⁸ especially innovative.²⁹ Decree-Law No. 122/2000 of 4/7 enshrines this right with regard to computerized databases, but it already existed for “selects, encyclopedias and anthologies”, as well as for “systematic or annotated compilations of texts” (Code of Copyright and Related Rights (CCRR)), when regarded as “*intellectual creations*”. The doctrine considered that the object of protection was already “*the choice or disposition of matter*”³⁰ and also the “*creative selection or ordination*”.³¹ The Berne Convention added two more requirements – originality and expressive exteriorization.³² In continental tradition, originality corresponds to the

²⁰ A chapter of a book cannot be interpreted autonomously, because its meaning is only reached in the book as a whole. Marques. Op. cit., p. 883.

²¹ Marques: a film is not a database, because “each of the frames that constitutes the film is not functionally disconnected from the rest, considering the normal use of this object”. Marques. Op. cit., p. 867.

²² Marques. Op. cit., p. 863.

²³ Ruiz. (2009). Op. cit., p. 67.

²⁴ Venâncio, P.D (2016). *A Tutela Jurídica do Formato de Ficheiro Eletrónico*, pp. 143-144 (<https://repositorium.sdum.uminho.pt/bitstream/1822/35678/1/Pedro%20Dias%20Ven%C3%A2ncio.pdf>).

²⁵ Art. 50(1) of the Code of Industrial Property. Marques. Op. cit., p. 683.

²⁶ Tavares. Op. cit., pp. 254/255. Venâncio. Op. cit., p. 618.

²⁷ “1—The databases, which, by the selection or provision of the respective contents constitute intellectual creations, are protected by copyright.”

²⁸ A real estate sales website that creates a sense of dream and luxury, a poetic anthology, organized for readers to experience certain feelings. Janssen. Op. cit. pp. 212/213.

²⁹ Data from genetic sequences, being data of nature, cannot, in principle, be the object of creativity in the way they are presented. However, if the creator of the database represents it by sounds or images, or formats not previously used, its content may be considered creative. Tavares, P.R. (2017). Op. cit., p. 266.

³⁰ Leitão, L.M.T.M. (2011) *Direito de Autor*. Almedina, Coimbra, p. 95.

³¹ Ascensão, J.O. (1992). *Direito Civil: Direitos de Autor e Direitos Conexos*. Coimbra Editora, pages84/85. Venâncio. Op. cit., p. 607.

³² Marques, “the act of creation (and of externalization...) establishes the ownership of the right to the patent”. Marques. (2020). *O Nascimento, a Titularidade e Algumas Vicissitudes do Direito à Patente no Novo CPI de 2018*. Revista de Direito Intelectual, n.º 20. Almedina, Coimbra, pp. 44/45.

author's intellectual creation, as an expression of his personality,³³ differing from the British "*skill, judgment and labour*".³⁴ The protection has two purposes—the promotion of scientific and artistic progress and the recognition of the rights of economic exploitation to authors.³⁵

The active subject of these rights is their author or inventor, but his right³⁶ is separated from that of the data content holders.

- ii) *The sui generis right of databases*, (Decree-Law No 122/2000 of 4/7), based on the same objectives as the Directive, of i) to promote progress and economic competitiveness,³⁷
³⁸ and ii) to increase European competitiveness in this market.^{39 40 41}

The object of protection is the investment made by the "manufacturer" of the database in "obtaining, verifying or presenting the content of a database, i.e. in the construction of the database structure, with the achievement and acquisition of data, the research and its collection, its verification (analysis, preparation of integration, verification of quality, authenticity and origin, cataloguing and classification, construction of metadata, tables and indexes), availability, maintenance and actualization,⁴² the presentation and availability to users.⁴³ The investment must be substantial and must have a relevant weight in the size of the production capacity of the manufacturer,⁴⁴

³³ American jurisprudence, which in this case does not follow the British tradition, distinguished two levels of originality, the first being "*creative originality*" or deep, characterized by revealing the author's personality and, the second being the originality derived from the *sweat of the brow* or low-profile originality, which does not reveal the author's personality, but is the product of his work. *Jeweler's Circular Publishing Co. V. Keystone Publishing Co.* Only databases that have the characteristics of originality should be protected by copyright. Ruiz. Op. cit., pp. 46/47.

³⁴ Janssen. Op. cit., pp. 199/200.

³⁵ Janssen. Op. cit., p. 197. *Protection enshrined in the US Constitution* (art. I, s. 8, cl. 8) "The Congress shall have the power (...) to promote the progress of science... by securing... to authors and inventors the exclusive right to their respective writings and discoveries". Ruiz. Op. cit., pp. 43/44.

³⁶ Legal persons may hold such rights when they have acquired them.

³⁷ According to Téson, it is a matter of promoting the "desarrollo del mercado de la información". Tesón, I. V. (2008). *La Tutela "Sui Generis" de las Bases de Datos*. Revista de Derecho Patrimonial, 21. Thomson, Aranzadi. Navarra, p. 164.

³⁸ Judgment Aranzadi-El Derecho, "Si se introduce una base de datos en el mercado, se produce lo que los economistas denominan un "bien público", es decir, el consumo por una persona no excluye el consumo por otra, por lo tanto, si no se protege puede ocurrir que el mercado no produzca el volumen óptimo de innovación". Tesón. Op. cit., p. 164.

³⁹ Ruiz. Op. cit., p. 61. The other objective was to harmonize national protection schemes.

⁴⁰ Ruiz: "Las bases de datos... suponen una herramienta fundamental para el progreso en la sociedad actual". Ruiz. Op. cit., p. 40.

⁴¹ Densified by art. 217 of the CCRR, which equalizes it to that conferred to copyright holders and related persons.

⁴² The components of the investment are the following: "1) data has to be collected; 2) permission has to be obtained for their storage and use in the database; 3) the collected data has to be selected, processed and organized; 4) instruments have to be made to find separate elements of the database; and 5) the contents of the database have to be verified and updated". Janssen. Op. cit., p. 225.

⁴³ It is emphasized the patrimonial nature of this right. Tesón. Op. cit., p. 160

⁴⁴ The High Court of England considered that "there was a substantial investment for a database that cost four million pounds per annum and the maintenance involved eighty employees and extensive computer hardware and software". In Belgium, investment of two employees for ten years was considered relevant. Janssen. Op. cit., p. 220.

whether quantitatively (measurable, financial or of other quantifiable resources)⁴⁵ or qualitatively⁴⁶ (by the relevance of the work done, personal qualification or complexity)⁴⁷. It is, after all, an investment in knowledge, which is also a capital asset.⁴⁸

The protection excludes the generation of *ex novo* data by the manufacturer,⁴⁹ especially in the context of another activity.^{50 51} The foundation of the *spin off* doctrine is to promote investments in the construction of databases, from obtaining existing data^{52 53} and avoiding the formation of data monopolies.⁵⁴ Although the law does not express it, it also includes the cost of maintaining and updating the database.

The *original owner of the sui generis right* is the manufacturer of the database who has invested and has assumed the financial risk of creating the database.⁵⁵ It is a subjective and absolute right against misuse by third parties.⁵⁶ Unlike the protection against unfair competition, it does not apply only to economic operators competing with the proprietor, but it is also an *erga omnes* right, which is available for transmission and negotiation, unlike the competition law because it always operates, while competition law can only be invoked when infringed.⁵⁷ The investors' ownership of the right reveals the asset nature of this right,

⁴⁵ Mello understands that there is qualitative substantiality when "the manufacturing process is technically innovative". Mello. A.S. Op. cit., p. 154.

⁴⁶ The evaluation criterion proposed is the "bonus pater familiae": "amount which a normal and average person placed in the professional position of the holder of this exclusive would spend". Marques. (2007). *Biotechnologia(s)*...p. 890.

⁴⁷ Janssen highlights the intellectual work and adds a restricted interpretation of the concept. Janssen. Op. cit., p. 219.

⁴⁸ Ruiz. Op. cit., p. 119.

⁴⁹ Pereira: The law "does not include...the creation of elements constituting the content of a database". Pereira. *Bases*...p. 386.

⁵⁰ Janssen. Op. cit., p. 217. Recitals 10-12 of the Directive highlight the objective of promoting knowledge and competitiveness. According to Ruiz. Op. cit., p. 231. It is not the producers of raw data that are protected, but the investors, which are protected by the creation of existing databases (*ibidem*, p. 232).

⁵¹ Janssen: "the investment cannot concern the creation of data, but only the treatment of the data with a view to arranging them in a database". Janssen. Op. cit., p. 217.

⁵² Tavares, "those who already have the data as the product of any other activity, not really investing in the creation of the database, cannot claim to be the right holder." Tavares, P.R. (2017). Op. cit., p. 257.

⁵³ Pereira. *Bases de Dados*...p. 386.

⁵⁴ Ruiz. Op. cit., p. 237.

⁵⁵ The CJEU recognized that it was the Austrian state holding the *sui generis* right. Tavares disagrees, invoking that the law does not express it. Tavares, P.R. Op. cit., pp. 264/5.

⁵⁶ Pereira...*Bases*...p. 378. According to Marques, the special right of the manufacturer "has nothing to do with... unfair competition, insofar as, inter alia, it is not intended to sanction afterwards unfair behaviour against competitors." Marques. (2007). *Biotechnology(s)*...p. 860. As decided in the judgment of 20 October 2011, of Tribunal da Relação de Évora, it is an "exclusive exploitation", which consists of an "*absolute right*", in the sense that it corresponds to a general duty of abstention, universally imputed by the generality of persons...which is exercised against all".

⁵⁷ Gaster, Ruiz. Op. cit., p. 70.

as opposed to copyright.⁵⁸ The manufacturer may have undertaken the creation of the database but not be the creator.⁵⁹

The content of the right is the whole database, its integrality, as a new product, formed by a set of differentiated components, but which form an inseparable and unbreakable universality, including the structure and the elements that compose it.^{60 61} The right to the “*extraction and/or re-utilization of all or a substantial part...of its content*”, i.e. to prevent the content of the database from being used by third parties in an illegitimate manner.⁶² The law prevents substantial parts of the data from being extracted illegitimately.⁶³ Third parties are prevented from taking advantage of another’s investment illegitimately.⁶⁴ Not just the organization of the database, but also the content is protected.⁶⁵ An activity is protected. The law prevents only “*the extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database*”. The extraction is the transfer of the data to another medium, i.e. the copy or reproduction of the database, and the possibility of its free manipulation by third parties. Re-utilisation is any form of distribution or making available data to the public, giving the possibility of consulting it. It is a requirement for the prohibition of the substantial extraction or re-utilisation, from a quantitative point of view (depending on the amount of data involved)⁶⁶ or qualitative point of view (assessed, according to Ruiz, by the relevance of the data involved and by the information contained therein, when compared to the database as a whole).⁶⁷ Links from other websites to the contents of the database are included.⁶⁸ The right to prohibit is exhausted by the first sale of a copy of the database, but the sale does not legitimise the acquirer to extract the data and transmit it to others.⁶⁹

⁵⁸ Recital 41 of the Directive, in favour of the manufacturer, who takes the risk of business. Pereira. Bases...p. 380.

⁵⁹ For Ruiz, the purpose of protection “no parece ser la necesidad de retribuir al creador su inversión, sino más bien uno de justicia natural: ningún hombre debe aprovecharse del trabajo de otro”. Ruiz. Op. cit., p. 36. But the work is done by someone else, on behalf of the manufacturer. And the manufacturer is the one who has the initiative and takes the risk of the investment. Ibidem, p. 65.

⁶⁰ Marques. Biotecnologia(s)...p. 897.

⁶¹ The database is “indeed a universality, consisting of the plurality of discrete data, thesaurus and indexing tables”. Venâncio. Das Compilações...p. 621.

⁶² “Es la incolumidad del contenido la que se protege mediante el otorgamiento al fabricante o productor de un verdadeiro derecho subjectivo”. Ruiz. Op. cit., p. 71. According to Venâncio: “The simplistic division between structure and content is manifestly insufficient for the delimitation of the object of sui generis right and copyright”. Venâncio. Das Compilações...p. 624.

⁶³ This prohibition shall not prevent the collection of data from another source. Improper use of that database shall be prevented. Ruiz. Op. cit., p. 133.

⁶⁴ Marques, “Therefore, it is not a question of preventing and suppressing unfair behaviour in the market, but only of protecting the investments”. Marques. (2007). Biotecnologia(s)...p. 899.

⁶⁵ We diverge from Ascensão: “The object of the sui generis right is the own content of the database.” Ascensão. Op. cit., p. 742.

⁶⁶ It is the proportion of the data involved in the entire database, which is relevant. Ruiz. Op. cit., p. 135.

⁶⁷ Ruiz: This right aims at “evitar que las inversiones substanciales realizadas en bases de datos devengam improductivas a consecuencia de extracciones o reutilizaciones de su contenido danhosas para las expectativas del inversor/fabricante”. Ruiz. Op. cit., p. 93.

⁶⁸ Along the same lines, Pereira. A Liberdade de Navegação ... Op. cit., p. 241.

⁶⁹ Pereira: “re-utilisation, as a distribution, is exhausted with the first sale of a copy”. Pereira. Bases...p. 388.

Non-substantial use by third parties is accepted by the need to balance the interest of access to information and the protection of the manufacturer. Access of websites to protected databases is permitted, but only for superficial or non-substantial links.^{70 71}

Transaction and exploitation of the *sui generis* right

Portuguese law provides that the manufacturer may:

- i) *Transmit his right*, transferring the rights of the manufacturer and being deprived of them.⁷² This profitability of the investment exhausts the right by extinguishing its asset status.⁷³ It may occur by death or inter-living, upon purchase and sale or other contract, including transfer in lieu of payment, exchange, donation, etc., or by delivery of a copy of the entire database.⁷⁴
- ii) *Grant contractual licenses*, by temporarily granting rights to the operation of the database, without the possibility of disposing of it, within a binding relationship and without extinguishing the right to distribution;⁷⁵
- iii) *Transfer of the right*. Although article 7(3) of the Directive provides for the *transfer* and the Portuguese law does not, this does not mean that it excludes it, since it can always be considered to be included in the concept of contractual licenses.⁷⁶

There are also transmissions in the data acquisition by manufacturers to producers, following the same principle we just mentioned, considering that the rights of the manufacturer do not affect the rights of content owners.

Both transmission and licensing may occur through material support or online access.^{77 78}

The owner of the copyright on the database may negotiate his right, using the forms provided in article 7, from reproduction to the provision of access, but noting that, as opposed to what happens in *sui generis* right, copyright acts do not affect rental rights, which subsist.

The law allows the use of databases by public lending, as well as the use of substantial parts of the database for didactic or scientific purposes, public security and for use in administrative procedures or judicial cases. The legitimacy for the practice of such acts is reserved only for legitimate users.⁷⁹

⁷⁰ We follow Ruiz. Op. cit., p. 138.

⁷¹ Ascensão, the “*parasitic act of whom, by seizing the material available on the base, trades it*,” the purpose of the law is clearly protecting the investment of the manufacturer. Ascensão. Op. cit., p. 741. It is a “manufacturer’s commercial monopoly”. Mello. A.S. Op. cit., p. 147.

⁷² Ruiz: This transmission “*supone el traslado a su derechohabiente, en bloque, de los mecanismos defensivos establecidos ..., derecho substantivo y acción iriam juntos en el traspaso*”. Ruiz. Op. cit., p. 185.

⁷³ The law simply expires. Marques. Biotecnologia(s)...p. 928.

⁷⁴ Ruiz. Op. cit., p. 142.

⁷⁵ Marques. Biotecnologia(s)...p. 931.

⁷⁶ Ruiz: “*cesionario no exclusivo y licenciatarío son términos que pueden usarse de modo indistinto*”. Ruiz. Op. cit. p. 187.

⁷⁷ No physical delivery of the data support is required, the access mode is not relevant. Marques. Biotecnologia(s)...pp. 930ss.

⁷⁸ Marques. Biotecnologia(s)...p. 928. Mello. A.S. Op. cit., p. 146.

⁷⁹ Marques. Biotecnologia(s)...p. 925.

Computer programs and databases

The protection of databases does not cover computer programs. These are distinguished from databases because their function is to process them, with increasing speed, scope and ability, to extract knowledge.⁸⁰ These systems are susceptible to specific legal protection.⁸¹

A database is not a computer system. It is only a set of data, grouped, identified, referenced and organised to be consulted by people and operated by computer systems.⁸²

Portuguese law defines them as devices that run an automated data processing program.^{83 84}

The Code of Industrial Property admits the patentability of “computer programs”, but only if they have “any technical contribution” as provided for in article 51(1)(d) of the CIP. Patentability is excluded.

The European Directive on the harmonization of the patentability of computer programs allowed the patentability of such programs if they have a “technical effect” in relation to the state of the art.⁸⁵ This effect must be an innovation in relation to the state of the art.⁸⁶ Also the CIP enshrines it, in a more comprehensive provision than the one of the European *Patent Convention*, which also admits such patentability, provided that it is not just about the execution of mental acts.⁸⁷ It is assumed that the program has an inventive nature, cumulating with the requirement of technical progress.⁸⁸

Directive 2009/24/EC would enshrine the legal protection of computer programs through the constitution of copyright. This protection is specific to computer programs and does not cover “the ideas and principles possibly present in logic, algorithms and programming languages”, which are protected by themselves.⁸⁹

⁸⁰ These processings are very relevant in medicine, where “the amount of information produced requires this processing to be operated by machines, through increasingly efficient computer programs, applying algorithms and statistical techniques to computerized data”. Tavares, P.R. Op. cit., p. 251

⁸¹ Without prejudice to the fact that the organization of the database presupposes the DBMS, a computer system which is indispensable for the operation and organization of the data itself (recital 20 of the Directive).

⁸² Between multimedia works and databases, “The database is static. Multimedia creation...is dynamic and gives life to this data”. Rocha. M. V. Multimédia e Direito de Autor: Alguns Problemas. Universidade Católica, Porto, p. 22.

⁸³ Art. 2(a) of Law No 109/2009 of 15/9: “computer system” means any device or set of interconnected or associated devices, in which one or more of them develops, by executing a program, the automated processing of computer data, as well as the network supporting communication between them and the set of computer data stored, processed, recovered or transmitted by that device or devices, with a view to their operation, use, protection and maintenance.

⁸⁴ Marques. *Biotechnologia(s)*...p. 699.

⁸⁵ Marques. *Biotechnologia(s)*...p. 703.

⁸⁶ France was the first country to predict patentability, when the program is an invention, not accepting it for programs (“as such”). In Germany the doctrine of “technical effect” was established as a technical solution with “inventive level or novelty” to a problem that was not limited to repeating something already existing in nature (including human action). Marques. *Biotechnologia(s)*...pp. 708-714.

⁸⁷ Refusing patentability to “schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers”. Marques. *Biotechnologia(s)*...p. 719.

⁸⁸ Marques. *Biotechnologia(s)* ..., p. 793.

⁸⁹ Recitals 11 of the Directive.

Artificial Intelligence (AI)

As mentioned in the Introduction, the concept of AI has recently emerged. There are musical works produced by computer systems, processing data from other musical works.⁹⁰ The systems also produce original paintings from patterns of traces and colors.⁹¹ It is possible to program it with data from the creative process, drawing techniques and artistic concepts, through algorithms.⁹²

The doctrine considers that it is not possible to attribute authorship to the systems, because the copyright holder is an individual, in this case the author of the program that executes the work. That is the status in Europe, the US and Canada. In the UK, the law already foresees the possibility of original computer creations to be worthy of legal protection, but the one considered to be the holder of this right is the person who has drawn up the functional rules of the program (*necessary arrangements*).⁹³

AI generated autonomous vehicles, predictive systems,⁹⁴ telemedicine, the use of drones, the use of robots to provide domestic services, including support to the elderly, etc.⁹⁵

The European Commission has defined AI as “systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals,” and launched a strategy in this area in 2018.⁹⁶ The creation of a specific legal regime for AI is one of the three objectives “to ensure an appropriate ethical and legal framework”.⁹⁷

The doctrine suggests three possibilities, i) the constitution of rights to intelligent systems or robots;⁹⁸ ii) to sign the authorship of the works to computer programmers;⁹⁹ and iii) the creation of a *sui generis* right inspired by database law.

⁹⁰ Deep Mind program (<https://deepmind.com/>) composes music from databases of musical pieces. Rodríguez.N. S. *Artificial Intelligence Y Propiedad Intelectual. Actualidad Jurídica*. Uría Menéndez, No. 52-2019, p. 84.

⁹¹ Based on data from 15,000 paintings, Ian Goodfellow managed to put an AI system designated GAN producing a painting, named Edmond de Belamy (www.obvious-art.com), which he later auctioned for high values. Rodríguez. N.S. Op. cit., p. 83.

⁹² Ahmed Elgammal pretends that the computer generates truly original works, but they are algorithms created by the programmer. Rodríguez. Op. cit. p. 84.

⁹³ Art. 178 of the Copyright, Design and Patents Act, 1988. Rodríguez. OP cit., p. 86.

⁹⁴ Description at <https://deepmind.com/blog/article/traffic-prediction-with-advanced-graph-neural-networks>.

⁹⁵ EP resolution of 16 February 2017 (https://www.europarl.europa.eu/doceo/document/TA-8-2017-0051_PT.pdf)

⁹⁶ Artificial intelligence for Europe.

<https://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=CELEX:52018DC0237&from=PT>

⁹⁷ Com (2018) 237 final, p. 4.

⁹⁸ Marques: Computers “can’t exercise consciousness (in rigor consciousness and self-knowledge)”. It would be necessary to revise the concept of legal personality, which is the structuring of legal science. Marques. O Nascimento...p. 45.

⁹⁹ Marques, “the inventor is the programmer (human person)”. He is the one who “perceives the problem and the general inventive concept that generates the technical solution.” Marques. O Nascimento...p. 44.

Part One: Basic Principles: Character, source and nexus

Technological developments brought challenges to the legal systems, which are likely to break with the traditional categories of legal knowledge.¹⁰⁰

Both in the *sui generis* right of databases and in copyright and industrial property, it is clear that right holders are always natural persons, in case of the original copyright owners, or legal persons, in case of industrial rights and acquired copyrights. Likewise, in what concerns artificial intelligence, the holders of the corresponding rights are also natural or legal persons. The relevant big data transactions are listed in the executive summary. They will be the guide of our analysis.

1.1. General overview

For the overview that is the basis of the big data tax framework, we refer to the summary.

1.2. Character

Income associated to big data can be classified as i) copyrights, ii) royalties, iii) provision of services, iv) corporate profits, or v) capital gains. As mentioned in the summary, the core element for the qualification of these incomes is the concept of royalties, but the income associated with big data can assume other types of qualification, according to the rules of each tax, as we shall see below.

1.3. Source

The location of the income related to big data is ascertained according to the place where it is obtained. When the income is included in the profits of enterprises, it is attributable to its head office or permanent establishment. The location of the debtor of the income is also important to determine the application of national laws, in particular on income taxes and VAT, as we will examine later.

1.4. Nexus

The connecting criterion for determining location is, in case of royalties, the principle of exclusive taxation in the state of the beneficial owner's residence.

In case of provision of services and corporate profits, the determining factor is the head office of the enterprise or, when the services are provided from a permanent establishment to which they are attributable, the location of the establishment.

¹⁰⁰ The European Community even states, probably with some voluntarism, that artificial intelligence will produce a new industrial revolution: "Just as in the past with the steam engine or electricity, AI is transforming our world, our society and our industry." SWD(2018)137final.

The place of the source of income, in particular the location of the debtor, may also be relevant for taxation and withholding purposes.

Part Two: Application of treaty principles

2.1. General overview

Portugal broadly follows the provisions of the international treaties, namely the OECD Model Tax Convention on Income and on Capital (OECD MC), although with slight specificities, as we shall see below.

2.2. Detailed comments

The legal relationships established within the big data market involving different jurisdictions are likely to generate the following types of income, in conformity with the OECD MC, which is the basis of the generality of the CADTs (Conventions for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital Gains) concluded by Portugal.

2.2.1. *Royalties*

The OECD MC establishes the principle of exclusive taxation in the state of the beneficial owner's residence. However, Portugal entered a reservation to this norm—expressed in the generality of the CADTs concluded by the Portuguese state—reserving for itself the right to tax at source royalties' income. Consequently, in the CADTs concluded by Portugal, the tax jurisdiction of this type of income is cumulative, i.e. both states (the one of the residence of the beneficial owner and that of the source of the income) can exercise tax power, a situation which is likely to generate international double taxation.

Double taxation is eliminated by the state of residence of the beneficial owner by one of two methods – The exemption method and the credit method. In most of the CADTs concluded by Portugal, the second method is used.

The OECD MC defines royalties as payments of any kind received as a consideration for the use of, or for the right to use intellectual or industrial property rights, but not only, also, income from information concerning experience gained in the industrial, commercial or scientific sectors, i.e. *know-how*.¹⁰¹

The Commentaries to the OECD MC specify that these services are beyond intellectual and industrial property rights, by extending the standard to “payments(...) for information concerning industrial, commercial or scientific experience”.

It is added to the Commentaries that it is about “certain information that has not been

¹⁰¹ Art. 12(2): “payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trademark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.”

patented and does not generally fall within other categories of intellectual property rights. (...) It's "Information...arising from previous experience, which has practical application in the operation of an enterprise and from the disclosure of which an economic benefit can be derived."

Royalties are payments related to the use, or the right to use, copyright or industrial property rights of a given database, or even of the data integrating it.

2.2.2. *Provision of services*

"Payments for new information obtained as a result of performing services at the request of the payer" are not royalties.

This is the case, within the big data market, of the provision of a continuous *data feed*, by one company to the other, which provides it with services in that field, having the right to display them on its internet site.

The concept of royalties includes only the availability of know-how and not its application or execution in the buyer's operational procedures, i.e. the execution of a service where this knowledge applies. In these situations, usually, the object of the contract is a result (of the application of knowledge to the procedures of the acquirer) and not a means (the mere availability of knowledge in itself).¹⁰²

Considering that income is regarded as a provision of services, the tax jurisdiction is (as in corporate profits) exclusive to the state of residence of the service supplier/beneficial of the income, unless he has a habitual permanent establishment in the other contracting state for the pursuit of his activities, in which case the income may be taxed in the other state, but only to the extent attributable to that permanent establishment.

However, in the context of income from the provision of services, the so-called technical assistance services can be assimilated to royalties.

Portuguese jurisprudence distinguishes technical assistance from the provision of services, according to the level of direct intervention in the application of knowledge. If this intervention is the principal, it is a provision of services. If it is ancillary to the availability of knowledge, it will be technical assistance, and its remuneration assumes the nature of a royalty. If the acquisition refers to a knowledge or experience, the remuneration is a royalty; if it is the application of that knowledge in the execution of a customer procedure, it is a service provision.¹⁰³

¹⁰² As a conclusion of the Commentaries to para. 11.1, "In the know-how contract, one of the parties agrees to impart to the other, so that he can use them for his own account, his special knowledge and experience which remain unrevealed to the public." In such cases, it is a condition for the qualification that: "It is recognised that the grantor is not required to play any part himself in the application of the formulas granted to the licensee and that he does not guarantee the result thereof." Along the same line, para. 11.2 states that: "This type of contract thus differs from contracts for the provision of services, in which one of the parties undertakes to use the customary skills of his calling to execute work himself for the other party. Payments made under the latter contracts generally fall under art. 7."

¹⁰³ Judgment N.º 04075 of 18.06.2013 of Tribunal Central Administrativo do Sul: "In the technical service contract the parties want the actual performance of a particular service and not an 'assistance' in the acquisition of technological information; In the 'technical assistance' contract, the parties want technological information, which is combined with the provision of a complementary or instrumental service."

2.2.3. *Corporate profits*

The general principle is the taxation in the state of residence of the income's recipient. However, when the enterprise operates in another contracting state, through a permanent establishment, the profits specifically attributable to it may be taxed in that state. These rules also apply to big data.

The granting of the right to use the database constitutes a provision of services, corresponding to the provision of temporary and partial enjoyment of a manufactured product, through the establishment of a legally binding relationship, irrespective of the length of its duration.

2.2.4. *Computer programs*

The OECD MC includes software with a creative character in the concept of royalties. This occurs in cases where "payments made (...) for granting of rights to use the program in a manner that would, without such license, constitute an infringement of copyright," and provided that the transferor is not "fully alienating the copyright rights."¹⁰⁴

Decree-Law No 252/94 of 20/10, which transposed into Portuguese law Council Directive 91/250/EC, provides that "creative computer programs are entitled to similar protection to that conferred to literary works."¹⁰⁵ The result of this assimilation is that gains coming from contracts which grant a temporary or permanent use of intellectual property rights in computer programs (software) are royalties.

In Portuguese law, this classification must be interpreted in the light of the commentaries that Portugal has made to article 12 of the OECD MC, observing the non-adherence to the interpretation of paragraphs 14, 14.4, 15, 16 and 17.1 to 17.4.¹⁰⁶

With that reservation, payments relating to the distribution of standard copies of software, excluding the right to make adaptations (*customise*), or to reproduce them, should not be classified as royalties, but as corporate profits, covered by article 7 of the Convention, and, in the absence of a permanent establishment situated in the Portuguese territory to which such payments are attributable, they are not subject to withholding tax at source.

If the software acquired to operate a database is not changed or adapted and is not likely to be, the payments made by the software purchasers to their suppliers should not be considered royalties, but rather business profit of the suppliers.

¹⁰⁴ Para. 13.1 of the Commentaries to art. 12.

Art. 1(1) of the Directive – "Member States shall protect computer programs, by copyright, as literary works."

¹⁰⁶ The text is the following: 'payments relating to software fall within the scope of the Article where less than the full rights to software are transferred either if the payments are in consideration for the right to use a copyright on software for commercial exploitation (except payments for the right to distribute standardized software copies, not comprising the right neither to customize nor to reproduce them) or if they relate to software acquired for the business use of the purchaser, when, in this last case, the software is not absolutely standardized but somehow adapted to the purchaser.' Para. 28 of the Commentaries to art. 12 of the OECD MC, disclosed with the publication on 17 July 2008.

Part Three: Personal Income Tax (PIT)

3.1. Legal nature of sui generis right

As previously concluded, Portuguese law protects the holder of the sui generis right. Article 217 of the CRR protects “owners of copyright and related rights, as well as the holder of the sui generis right...against the neutralization of any effective technological measure”.

This specific legal protection does not qualify this right as an intellectual property right, as is apparent from the law, which only demands the appliance of the same regime against technological measures, not qualifying it as such. Its fiscal framework will always depend on the rules of incidence of each tax and on the treaties and may qualify as income from intellectual or industrial property when they comply with the respective criteria, or know-how.

3.2. Liability to PIT

The framework of income generated by big data in the scope of personal income tax depends on its qualification as income from intellectual or industrial property, or on *know-how* and also on the status of its holder.

When earned by the original owner, it is income from self-employment or business activity (category B), whether it comes from a temporary or final transfer of the rights.

The original copyright owner shall be entitled to an exemption of 50% of the income, up to a maximum of EUR 10.000,00, provided that they comply with the requirements of law.

When the income results from the transfer or temporary use by a non-original owner, it is qualified as capital. If the owner transmits them definitively, the income is qualified as capital gains – Category G.

When the owner is a non-resident, the gains are deemed to be obtained in Portugal if the debtor of the income has a residence, head office, effective management, or permanent establishment there to which payment must be attributed and are subject to a withholding tax rate of 25%.

Creative computer programs shall enjoy a similar protection to that conferred to literary works and their tax treatment is similar to that conferred to the original databases.

In what concerns payments for software use licenses, the Commentaries to article 12 of the OECD MC should be considered, taking into account, obviously, the observations made by Portugal. As previously mentioned, Portugal does not consider royalties, but rather normal income of suppliers, payments for: i) the right to distribute standardized copies of software, although excluding the right to adapt or reproduce them, and ii) the fully standardized software purchased for use in the operation of an enterprise.

These payments do not correspond to intellectual property income, but rather to considerations for the acquisition of goods or services, being considered to be obtained in Portugal in the situations provided for in point 7 of paragraph 3(c), with the exclusion provided for in paragraph 4, both of article 4 of the Code of Corporate Income Tax (CCIT) (applicable in the scope of PIT pursuant to the remission operated by article 18(3) of the CPIT).

Part Four: Corporate Income Tax (CIT)

4.1. Liability to CIT

In CIT, copyright and *sui generis* rights – big data – contribute to the formation of taxable profit and, in case of a final transmission of the right, there is a capital gain.

When earned by residents or attributable to a permanent establishment of a non-resident located in Portugal, they are subject to withholding tax at a rate of 25%. Portuguese law follows the OECD MC principles, when considering the exercise of an activity through machines a permanent establishment, provided that the following requirements are met: i) permanence of the equipment, ii) exercise of the activity through that equipment, iii) even if there is no staff, the equipment carries out the activity autonomously and iv) the equipment does not perform an auxiliary or preparatory function, rather principal and essential.¹⁰⁷

Income of non-residents without a permanent establishment in the Portuguese territory shall be deemed to be obtained in Portugal, whenever the debtor has residence, headquarters, or effective management in the Portuguese territory, or when the payment is attributable to a permanent establishment located therein. It shall also be subject to a final withholding tax, at a rate of 25%.

According to Council Directive 2003/49/EC, the beneficial owner of royalties, residing in an EU member state, may benefit from the exemption provided in the CCIT, when the requirements and conditions of paragraph 13 are met.

In cases of final transfer of rights, when the holder is a non-resident without a permanent establishment in Portugal, the capital gains arising from the sale of copyrights are not considered to be obtained in this territory, unless they are attributable to a permanent establishment located therein.

4.2. Tax benefits in CIT

Portuguese law provides for a “*patent box*” scheme, which reduces to 50% the taxable income from contracts which grant a temporary or permanent use of registered copyrights and industrial property rights listed in paragraph 1 of the article. Among them patents and “copyrights on computer programs” stand out.

The databases, although susceptible to legal protection, both by copyright and by the *sui generis* law, provided for in Decree-Law No 122/2000 of 4 July, appear to be excluded from this scheme. In what concerns big data, this tax benefit only applies to patents subject to registration, as industrial property rights, i.e., databases with the character of invention and whose patent is registered. It also applies to computer programs for which copyright has been established. This tax benefit does not apply to the *sui generis* right of databases because, as already mentioned, it differs from computer programs.

Specifically in the field of research and development, the provisions of law should be noted. This tax benefit, applicable to taxable persons living in the Portuguese territory and non-residents with a permanent establishment, consists of a value corresponding to a percentage of research and development expenditure, in the part non-repayable, not

¹⁰⁷ Para. 2, Commentaries on art. 5 of the OECD MC and art. 5 of the CIRC. Serrão, M. (2017). *Definition of Permanent Establishment. Serviço Voip*. CTF N.º 438, July/December/2017, p. 242.

contributed by the state and spent during that period, which is deducted from the tax assessed.¹⁰⁸

Part Five: Transfer pricing

Portuguese law is aligned with international conventions and guidelines, and it is not foreseen that any particular features will give rise to situations of potentially non-eliminable international double taxation.

The transfer pricing associated with this activity is aligned with the creation of value generated in the different 'sub-activities'. The creation of value is closely linked to the nature of the data involved, in particular with regard to their scarcity, the complexity of their processing, but essentially to the extent the susceptibility of the data involved, represents a potential or strategic source of economic benefits. This last factor is preponderant for the detection of the existence of intangible assets generated by this activity, and also for the detection and delineation of development activities, improvement, maintenance protection and exploitation of data, which enhance their susceptibility to generate the aforementioned benefits.

The assessment of these operations in the light of the principle of full competition should be based on an accurate outline of the value chain associated with big data, by characterizing the functions performed, the assets held and the risks incurred by the different entities involved in the operations included therein, aiming at i) diagnosing the value generated by each of the entities and operations involved in this value chain, for its overall value; (ii) identifying the drivers responsible for generating the different economic benefits boosted by Big Data, and the definition of entities taking the risks associated with it, and which have the financial capacity to assume them; (iii) identifying the remuneration potential associated with those entities and activities, allowing, in parallel, the qualification of those incomes; and (iv) identifying the jurisdiction or jurisdictions with inherent tax rights under applicable international conventions.

Part Six: VAT

6.1. Legal framework

Portuguese VAT follows the EU model, having its legal basis in the VAT Directive and the interpretation and application contained in the Implementing Regulation which applies directly in the Portuguese national law, and also the jurisprudence of the EU Court of Justice (EUCJ).

¹⁰⁸ The Act clarifies that research expenditure are expenses carried out for the acquisition of new scientific or technical knowledge and development costs, for exploiting the results of research work, or other scientific or technical knowledge, with a view to the discovery or substantial improvement of raw materials, products, services or manufacturing processes.

6.2. The problem within the framework of the common European VAT system

In recent years, the EC has discussed with the member states questions relating to the treatment of VAT concerned with the so-called “Digital Economy”,¹⁰⁹ such as crowdfunding, bitcoin and virtual currency activities,¹¹⁰ in this case by problematizing the issue before and after the ‘Hedqvist’ judgment, Case C-264/14 of 22 October 2015 of the EUCJ and, more recently, transactions carried out through collaborative economy platforms (sharing economy).¹¹¹

Some of the challenges of applying the rules of the common VAT system to these realities are also evident in the classification of big data transactions, in particular as regards data collection: it is the case of determining the private or professional nature of persons using Internet platforms, or the treatment, for VAT purposes, of transactions carried out through or by the platforms, without a financial return, i.e. questions which essentially arise in terms of the impact of the tax.

6.3. Real and personal incidence

In VAT, a transfer of goods is defined as a costly transfer of the power to dispose of a tangible property as owner and the provision of services: “the transactions carried out for consideration which do not constitute transfers, intra-community acquisitions or imports of goods”.

The residual character of the concept qualifies as the provision of services a wide range of economic realities, including the transmission of rights, obligations of negative content and the provision of coactive services, determined by a public authority.

Onerousness is an essential element in the impact of the tax. According to the jurisprudence of the EUCJ, it presupposes a direct link between the transfer of goods or the provision of services and the consideration received by the taxable person. As a result, trade with consideration in kind and transactions with a monetary payment are, from an economic and commercial point of view, the same situations.

Therefore, a transaction is taxable only if there is a legal relationship with reciprocal benefits between the supplier and the beneficiary.

Transactions carried out with a spirit of liberality, without consideration, shall not be subject to VAT, except in cases where they are treated as onerous transmissions. This is the case of the free transmission of goods from the undertaking, when, in respect of those goods or of the elements constituting them, there has been a total or partial deduction of the tax.

A provision of services effected free of charge by the undertaking itself for the particular needs of its owner, staff, or, in general, for purposes other than those of the business shall also be considered costly.

¹⁰⁹ Guideline of the 102nd meeting of the VAT Committee – H document (taxud.c.1(2015)5528628-870).

¹¹⁰ Discussed in the VAT Future Group, working document No 049 (taxud.c.1(2014)3931884), 23/10/2014 and the VAT Committee, working documents No 854 (taxud.c.1(2015)2066488, 30 April 2015 and No 892 (taxud.c.1(2016)689595) of 4 February 2016.

¹¹¹ In its working document 878 (taxud.c.1(2015)4370160) of 22 September 2015, discussed at the 105th meeting of the VAT Committee established under art. 398 of the VAT Directive, the Commission sought to categorize the main activities carried out under Sharing Economy. The theme was discussed in the VAT Future Group by working document No 086 (taxud.c.1(2019)1950741) of 14 March 2019.

Both assimilations aim to ensure equal treatment between the taxable person who affects an asset or who provides a service for his private use, on the one hand, and the final consumer who purchases goods or services of the same type on the other.

6.4. Characterization of the activities developed

Operators on the big data market, who are involved in the collection, aggregation, preparation and analysis of data with a view to their availability and future distribution, shall be regarded as VAT taxable persons if they carry out these activities independently, i.e. without the dependence or guidance of employers.

The activities of collecting, structuring, analyzing and providing information, carried out for consideration, and not involving the transfer of the power to dispose of a tangible asset, constitute a provision of services in VAT.

The activities consistent with allowing the access or display of contents of “sites”, without the requirement of monetary compensation by the provider, but conditional to the transfer of personal data by users, which can be understood as a payment in kind, do not constitute transactions subject to tax. This exclusion occurs in cases where such visualization is possible for Internet users in general, regardless of the quality and quantity of personal data that each of them provides, in such terms that it is not possible to establish a direct link between those services and the data received as a consideration.¹¹²

The provision of information by individuals, without any consideration, does not constitute the exercise of an economic activity or a provision of services subject to VAT, unless human resources and materials equivalent to those of a producer, trader or service provider are used, as provided in article 9 of the VAT Directive (guide of the 111st meeting of the VAT Committee, document B).

When the services of collection, aggregation, preparation and analysis of data, as well as the provision of databases and their updating, constituting taxable operations, are provided via the Internet or an electronic network and are carried out in an essentially automated manner or, where human intervention is minimal, such services are classified as electronically supplied services. The mere sending of information by e-mail is not, in principle, subsumed in the concept of electronic provision of service.

The activities referred to, as well as the transmission of rights, royalties and similar rights, constitute provisions of services which, when the criteria of objective and subjective impact are verified, are subject to VAT taxation in general terms.

The tax base corresponds to the compensation actually received for that purpose (subjective value), which presupposes the existence of a direct link between the service provided and the financial return.

If the return is not defined in cash, the taxable amount shall be the total received or receivable, plus the normal value of the service given in return.

In the provision of services by taxable persons having special relations under the CCIT with their purchasers or recipients, whether or not they are taxable persons, the taxable value shall be the normal value of the service, and not the subjective value, but this only

¹¹² However, where such causal link exists, the taxable value shall be the normal value of the service, which corresponds to the amount which, under conditions of competition, the acquirer would have to pay for the same service if he had recourse to an independent provider or, in the absence of a similar service, the amount not less than the expenses borne by the taxable person in carrying out the provision of services.

occurs with the situations specified in the VAT Code.

The provision of services under consideration, without the application of any reduced rate, is subject to the standard rate of tax of 23%.¹¹³

In Portugal, the transmission of copyright or related rights, as well as the authorisation for the use of intellectual work, as defined in the CCRR, by the holder himself, his heirs or legatees, or by third parties on his behalf, is exempt from VAT. In return, they cannot deduct the tax paid on purchases of goods and services destined at their performance.

6.5. Location rules for the provision of services related to data transactions

The provision of services to taxable persons shall, as a rule, be located and taxed in the country of the acquirer's headquarters, permanent establishment or, in its absence, at his domicile.

In the case of big data, this rule applies when business is carried out electronically or by traditional means and none of the exceptions to the general localization rule apply. When services are provided by taxable persons not established in the national territory, the acquiring taxable person must proceed with self-assessment. On the other hand, if a taxable person, with headquarters, permanent establishment, or domicile in the national territory, provides such services to purchasers who are taxable persons with their headquarters, permanent establishment, or domicile to which the services are provided, in another EU member state, there is no taxation in Portugal.

Those services are also not taxed in Portugal when provided to residents outside the EU, whether or not they are taxable persons. When such services are provided by taxable persons established in the national territory to non-taxable persons, such services shall be taxable in national territory if they are not provided by electronic means.

In order to determine which of the general rules of location applies, the service provider must verify the status of the recipient of the service and the quality in which he is acting.

In principle, the recipient is considered to be a taxable person in the European Union when, at the time of acquisition, he communicates to the provider, a VAT identification number, of any member state, which could be conferred through the VIES system.

Services provided by electronic means are taxed in the national territory when the acquirer is a non-taxable person and is established therein (in case of legal persons) or domiciled (in case of natural persons).

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¹¹³ Portugal applies differentiated rates on operations carried out in the Autonomous Region of the Azores (normal rate of 18%) and in the Autonomous Region of Madeira (normal rate of 22%).

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Summary and conclusions

Big data transactions in Russia are taxed on the same basic tax law principles as any other business transactions both in domestic and in international context. Regulation of big data businesses is more developed in other areas of law covering data protection and privacy than in tax law. In tax law regulation is more developed in VAT than in corporate income tax.

Application of the basic tax law methodology to big data transactions can in some cases lead to legal uncertainty, especially in relation to the characterization of supply as provision of services or as licensing of intellectual property. There is very little specific guidance addressing such kind of uncertainty, which results in growing tax risks for taxpayers. Certain characterization of big data transactions is important both for direct tax (CIT) and indirect tax (VAT) consequences. Uncertainty in the characterization is not a unique issue for transfer of data but rather a broader problem of characterization of supplies of digitized products for tax purposes. Recharacterization of non-exclusive license contract arrangements into services arrangements for tax purposes is a potentially anticipated area of tax audit and tax disputes in Russia.

The delineation between licensing and provision of services is especially a critical issue for tax planning because of indirect tax (VAT) implications. There is currently VAT exemption of IP licensing under article 149 (2(26)) of Tax Code which includes provision of software, databases and rights for their use under licensing contracts. This exemption was reformed significantly effective from 1 January 2021 and also includes updates and provisions of the remote access to software, databases, and rights for their use. However, as follows from VAT tax case law and administrative guidelines an emerging trend can currently be observed in case law towards the treatment of data transactions (especially “raw data transactions” and “aggregated data transactions”) as supplies of services. In case of mixed contracts providing for both licensing and for other supplies (for example, supply of equipment or supply of services) the whole contract can be regarded for tax purposes as a provision of services.

The most critical issues for corporate income tax include income characterization and status of PE. For CIT purposes income arising from cross-border big data transactions will likely be characterized either as provision of services or as licensing of IP rights. Such characterization is also relevant for tax treaty purposes and some uncertainty is present

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because dividing criteria between provision of services and licensing are not yet explicitly formulated in legislation nor in practice. However, the approach towards this issue developed in the Commentaries to article 12 of OECD MC (2010) is generally followed by the Russian Ministry of Finance in its guidelines. Outbound royalties are taxed at source and tax can be significantly reduced or even eliminated under tax treaties. A PE can arise resulting from compliance with non-tax legislation (the Federal Law on Information) which implies that all personal data of Russian citizens shall be carried out on servers located in Russia. Even in case such a server is serviced by a third party and remuneration is at arm's length, this server can constitute a PE for a foreign company since such a server shall be at the disposal of a foreign company.

Current Russian practice demonstrates that the following methods are the most suitable for performing transfer pricing analysis in transactions involving intangible assets (including transfer of big data) between related parties: the CUP method, the TNMM, the profit split method and non-transfer pricing valuation techniques. However, the selection and application of the method for determination of market prices depends on contractual arrangements.

When a company provides services that allow access to the user data for its related party the CPM and the TNMM methods are typically used. Considering the sale of access to a database containing raw data prices can be tested with the application of the CPM method. In case of a license agreement between parties, the CUP method (provided information on comparable royalty rates is available) or the TNMM/PSM for evaluation of post-royalty profitability are more relevant. Valuation techniques are mainly used in case of a sale of property rights on hard to value intangibles provided such sale is a one-time transaction.

In recent years, the Russian government has paid greater attention to tax preferences for innovation activity. From 2005 there have been special zones available with attractive tax regimes for their residents and from 2021 the Tax Maneuver significantly reduced applicable corporate profits tax and social contribution rates for eligible Russian IT companies. In addition, Russian tax legislation provides tax allowances, tax credit, and other incentives for the IT industry which can be applicable to big data transactions.

Non-resident providers of electronic services to customers in Russia shall register for, and to charge VAT. Currently, in case of no presence in Russia companies do not require to pay corporate income tax from such services (until they do not fall into scope of withholding tax) since Russian tax legislation does not contain concepts of DST, digital PE etc. However, the Russian Federation participates in the framework of Pillar 1 and considers codifying approaches enshrined therein. Moreover, the concept of "digital residence" for foreign IT companies and individuals engaged in IT – activities without a physical presence in Russia, is under discussion.

Russia is consistently implementing the outcomes of the BEPS Project into its domestic legislation and has already joined a two-pillar plan to reform international taxation rules.

Introduction: Legal background

There are several specific (non-tax) laws regulating data processing in Russia; however, such legislation relates mostly to personal data (any information relating directly or indirectly to an identified or identifiable individual) and is based on the similar principles as EU

legislation in this area.³ The most significant Russian laws in the Russian Federation covering data protection and privacy include:

- The Federal Law “On Personal Data”;⁴
- The Federal Law “On information”.⁵

The Federal Law “On Personal Data” contains the concepts of a data operator and a person acting under the data operator’s instructions and authorisation. The Federal Law “On Personal Data” defines “personal data” as any information directly or indirectly related to an identified or identifiable individual; “data operator” is a person that organises or carries out (alone or together with other persons) the processing of personal data and determines the purposes of such processing. This law is aimed at defending the rights of data subjects (users) therefore setting the restrictions on collection, processing, and transfer of their personal data. Restrictions include obligations to obtain consent from data subjects for processing of their data and to notify the controlling authority (the Roskomnadzor) about data processing activities in detailed form. Cross-border transfer of personal data to third parties is in some cases also restricted by this legislation and can be done only after obtaining the consent of data subjects and notifying the regulator.

Russian case law contains precedents related to violation of the requirements of personal data processing. For example, Russia’s largest social network VKontakte filed the suit against two Russian companies which gather publicly available information on users from the social network without any permission. The companies used data for assessing their creditworthiness and selling this information to banks. Under the VKontakte Terms of Service, all users give consent to having their personal data processed by VKontakte as a data operator, but not by third parties. The case is still pending.⁶

The Federal Law “On information” regulates data storage and requires Russian and international data operators to ensure that certain operations on personal data of the Russian citizens (namely recording, systematization, accumulation, storage, adaptation/alteration, and retrieval) shall be carried out in database(s) located in Russia upon collection of personal data relating to Russian citizens. The law also obligates data operators to store user data for at least six months (with some exemptions, e.g., for airline ticket sales services and mass media). There is a Russian company, Tambov Law Firm, which has already been fined for the violation of these rules.⁷

However, neither these laws, nor any other regulations contain an official definition of big data. There were two attempts (in 2018 and 2020) to introduce such a definition, though both of these attempts were criticised and not approved. The legislative initiative of 2020 proposed a very broad definition of big data which could have led to recognition of all publicly available information as big data. The draft law also stated that the government of the Russian Federation would determine the rights and obligations of big data operators, the procedure and conditions for the circulating of big data as well as obligate the Federal Supervision Agency for Information Technologies, Communications

³ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation).

⁴ Federal Law of 27 July 2006 No. 152-FZ on Personal Data.

⁵ Federal Law of 27 July 2006 No. 149-FZ on Information, Information Technologies, and Information Protection.

⁶ Ruling of the Moscow Arbitration Court dated 24 July 2018 in case No. A40-18827/17-110-180.

⁷ Ruling of the Tambov regional court dated 4 October 2016 in case No. 4A-288/2016.

and Mass Media to maintain a registry of companies working with big data to control its circulation and processing. Big data operators insisted that the proposed regulation would create difficulties for access to non-personalized data that contradicts the objectives of the Russian National Strategy for the Development of Artificial Intelligence until 2030.

To a certain extent, relevant regulation on big data was also introduced by the Federal Law No. 34-FZ dated 18 March 2019, the so-called “Law on digital rights”. The Law on digital rights addressed the issue of legalising the collection and processing of big data by introducing the concept of a data provision service agreement into the Civil Code of the Russian Federation. Such an agreement provides for protection from obtaining information by third parties during a certain period. Therefore, this new type of civil law agreement allows parties to conduct business involving big data on legitimate grounds.

Starting from 1 January 2022, there is a new obligation for large foreign IT companies to have a physical presence in Russia.⁸ According to the Law foreign companies operating on the Internet with a daily audience of 500,000 Russian users, must create branches, open representative offices, or establish legal entities in Russia to comply. The Roskomnadzor has already officially issued the demand to 13 foreign companies,⁹ this list may be expanded.

Part One: Basic principles: Character, source and nexus

1.1. General overview

Big data transactions in Russia are taxed on the same basic tax law principles as other business transactions, both in domestic and in international context. For tax purposes there are currently no specific principles or developed case law related to characterization of transactions relating to transfer of data for direct tax purposes. Russian tax legislation does not reveal the concept of “source”; some types of a foreign entity’s income shall be taxed at source in Russia including outbound royalties. There are currently no special rules in Russia that determine nexus for data transactions.

1.2. Character

Data transactions can potentially be characterized as provision of services or as licensing under Russian Civil Law. The delineation between licensing and provision of services is not a unique issue for transfer of data but rather a broader problem of characterization of supplies of digitized products for tax purposes. However as follows from VAT tax case law and administrative guidelines discussed below, we can currently observe an emerging trend in case law towards the tax treatment of data transactions (especially “raw data transactions” and “aggregated data transactions”) as supplies of services. In case of mixed contracts providing for both licensing and for other supplies (for example, supply of equipment or

⁸ Federal Law of 1 July 2021 No. 236-FZ on the Activities of Foreign Entities in the Information and Telecommunications Network “Internet” in the Russian Federation.

⁹ List of foreign persons operating on the Internet on the territory of the Russian Federation <https://236-fz.rkn.gov.ru/agents/list>.

supply of services) the whole contract can be regarded for tax purposes as a contract for provision of services.¹⁰

One important court case in this regard is Mail.ru games¹¹ where the question was whether a supply of virtual gaming with valuable artefacts for consideration in the online game, was a supply of services (which is VAT taxable) or a licensing arrangement (which is exempted from VAT). The court ruled that in this case, disregarding the contract form of non-exclusive license arrangement, the supply was a supply of services. The court based its position on the fact that Mail.ru Games Company supplied services by providing public access and marketing, technical maintenance and administration of virtual games and in particular that Mail.ru Games Company holds accounts for personal data of players, blocks and unblocks their gaming accounts and converts payments into the gaming valuable artefacts. Anyway, a clear divisive line between the services and licensing was not formulated in this court decision.

Another important case is LLC case¹² where the analysed question was a recharacterization of a non-exclusive licensing arrangement into a service arrangement by the tax authorities. Such recharacterisation was challenged by the taxpayer, but the position of the tax authorities was subsequently supported by the Supreme Court. The discussed supply was a provision of access to photographs from space satellites stored at an online database. This supply was made for purposes of development of a complex automated system for management of forests at Vladimirskaya District. As follows from the contract the discussed supply was actually access to the digital database consisting of aggregation and systematization of space satellites photos. This database could be used as input data for more value-added products (VAP) resulting from processing of this data (such as, for example, “aggregated data” and “big data analytics” products). Such possibility was explicitly mentioned in the non-exclusive license arrangement; however, such VAP products could be used only for internal or strictly limited purposes. Key argument by the courts regarding recharacterisation was that in line with provisions of the Civil Code (article 1235 (5) and article 1237 (4)) remuneration under the licensing contract shall be paid for provision of the rights to use intellectual property but not for the actual use of the intellectual property itself.

1.3. Source

Russian tax legislation does not reveal the concept of “source”, it rather provides for the list of types of a foreign entity’ income which shall be taxed at source in Russia.¹³ The source of income derived from data transactions is determined based on the general rules. In case income from data transactions received by a foreign company is characterized as income from supply of services, then the source of income will be in Russia only if such a foreign company has a PE in Russia. Income of a foreign company having a PE in Russia shall be taxed in Russia on a net basis and only in part attributed to such a PE. However, in case

¹⁰ Letter of the Ministry of Finance of the Russian Federation dated 27 November 2018 No. 03-07-07/85571.

¹¹ Ruling of the Supreme Court of the Russian Federation No. 305-KG15-12154 dated 30 September 2015 in case No. A40-91072/14 URL: https://kad.arbitr.ru/Document/Pdf/277fdd53-f30b-4de4-a282-732bc448297e/c9e4c375-84e4-45dc-bf89-66c1b7000c43/A40-91072-2014_20150930_Opredelenie.pdf?isAddStamp=True

¹² Ruling of the Supreme Court of the Russian Federation No. 305-KG18-17913 dated 12 November 2018 in case No. A40-206114-2016_20180712 URL: <https://kad.arbitr.ru/Card/2b310030-957c-460b-944d-0868cd302274>

¹³ Art. 309 (1) of the Russian Tax Code.

income from data transactions received by a foreign company is characterized as royalty, such income is subject to withholding tax at source at a rate of 20% on a gross basis unless a tax treaty states otherwise.

1.4. Nexus

There are currently no special rules in Russia that may determine tax nexus for data transactions. However, Russia supports Pillar 1 OECD work and joined the multilateral solution aimed at reforming digital nexus rules.

Russian non-tax legislation (the Federal Law on Information) which implies that all personal data of Russian citizens shall be carried out in database(s) located in Russia once such data is collected, can have implications for PE status of a foreign company engaging in collecting data of Russian citizens and not having sufficient physical presence in Russia besides for this server where the data is stored. Even in case such a server is serviced by a third party and remuneration is at arm's length, this server can constitute a PE for a foreign company since such a server shall be considered to be at the disposal of a foreign company. The Russian tax legislation does not contain any provisions on "server PE", however, PE rules are quite similar to rules contained in the OECD Model Tax Convention. By analogy to the OECD approach the Russian tax authorities can recognize a server as a physical location which constitutes a "fixed place of business" and can lead to the creation of a PE in case of conducting a business activity through this place on regular basis.¹⁴ This can have important implications for such a foreign company if it receives any stream of revenues from Russian sources. For data-driven business models a collection of data is part of their value chain meaning that the obligation of storing data on Russian servers implies that this part of the business activity shall take place in Russia. This interpretation is especially relevant in context of the court decision on Bloomberg Co in 2010¹⁵ discussed below.

Russian domestic tax legislation has provisions relating to exemption from PE status very similar with article 4(d) of the OECD MC (2010). Article 306 (4) of the Tax Code provides that "the maintenance of a fixed place of business solely for the purpose of collecting, processing, and (or) providing information, for accounting, marketing, advertising or market research ... by foreign company in case such activity does not constitute the principal (usual) activity of foreign company" will not lead to PE in Russia. The relevant case in this regard is the case of Bloomberg Co where activities relating to the collection of news information performed by employees of the Russian branch of US Bloomberg Co were treated by tax authorities and by courts as not qualifying for exemption from PE status under US-Russia Tax treaty (1992) nor under Russian domestic legislation. The reasoning for this approach was that such activities constituted a major part of the primary business activity of the foreign (US) company Bloomberg Co.

However, the Russian Government considers the following proposals¹⁶ aimed at equalizing conditions in the Russian Federation for business conducted by domestic and foreign IT companies and increasing tax revenues, which can change current nexus rules:

¹⁴ Para. 124 to art. 5 of OECD Model Tax Convention on Income and on Capital (Condensed Version 2017), OECD Publishing.

¹⁵ Ruling of Arbitrage Court of Moscow dated 14 December 2010 in case No. A40-94391/10-142-134.

¹⁶ Action plan ("road map") "Creation of additional conditions for development of the information technology industry" (approved by the government of the Russian Federation on 9 September 2021).

- Codification of the rules for taxation of income gained by foreign companies as a result of interaction with Russian citizens and the use of data about them, taking into account the approaches discussed within the framework of Pillar 1;
- Introduction of “digital residence” rules for foreign IT companies and individuals engaged in IT – activities without a physical presence in Russia.

Part Two: Application of treaty principles

2.1. General overview

There is emerging guidance on characterization of data transactions in Russia for tax treaty purposes. One recent example is the Letter of the Ministry of Finance¹⁷ where the legislator provided some guidance for characterization of income from services providing online access to internet video for tax treaty purposes and for VAT purposes. As follows from the mentioned Letter and also from the two VAT cases discussed above, income arising from cross-border big data transactions will likely be characterized either as provision of services or as licensing of IP rights. Such characterization is relevant both for VAT and for tax treaty purposes and some uncertainty is present because dividing criteria between provision of services and licensing are not explicitly formulated in legislation nor in practice. Therefore, recharacterization of non-exclusive license contract arrangements into services arrangements for application of tax treaties is a potentially anticipated area of tax audit and tax disputes in Russia.

2.2. Detailed comments

In its recent Letter¹⁸ the Ministry of Finance clarified the details of characterization of income from cross-border activity of providing online access to internet video (B2C) where the access to such video is provided to final customers (natural persons) by providing them the codes of access through the distributors in the market countries. The Ministry of Finance mentioned that such activity can fall under the definition of income from providing author's rights and licenses or (if it does not meet the definition of article 12 OECD MC) under the definition of business profits. The Ministry of Finance cited paragraph 10.1 of the Commentaries to paragraph 2 of article 12 of OECD MC (2010) where it is explicitly mentioned that payments that are solely made in consideration for obtaining the exclusive distribution rights of a product or service in a given territory, do not constitute royalties. So, as follows from this guidance, income arising from providing B2C digital services will likely be characterized as business profits for tax treaty purposes.

In another recent Letter¹⁹ the Ministry of Finance also addressed the challenge of characterization of income from provision of rights to use software as either royalties or as business income. The Ministry cited Commentaries to article 12 of OECD MC (2010)

¹⁷ Letter of the Ministry of Finance of the Russian Federation dated 16 October 2020 No. 03-07-08/90463.

¹⁸ Letter of the Ministry of Finance of the Russian Federation dated 16 October 2020 No. 03-07-08/90463.

¹⁹ Letter of the Ministry of Finance of the Russian Federation dated 13 May 2021 No. 03-07-08/36254.

extensively and mentioned that characterization depends on the facts and circumstances and specifics of contract relations between parties. The key factor is the amount and economic nature of rights which are transferred irrespective from the legal form of transaction. So, the approach developed in Commentaries to article 12 of OECD MC (par. 12.2, 14, 14.2, 14.3) is generally followed by Russian authorities in this regard and the 'de minimis' amount of rights is therefore used as the threshold for characterization of income from such supplies.

The Bloomberg Co court case mentioned above is also relevant for the application of PE exemption provisions in tax treaties. The activities relating to gathering information (collecting data) in Russia can constitute a PE in Russia for foreign company even if a tax treaty with a foreign country has provisions similar to article 4(d) of OECD MC (2010) ("the maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise or of collecting information, for the enterprise") which provides for exemption based on the preparatory and auxiliary character of such an activity. As was mentioned before in the Bloomberg Co case, activities relating to collection of news information performed by employees of the Russian branch of US Bloomberg Co were treated as not qualifying for exemption from PE status under articles 5 (4 (d and e)) of the US-Russia Tax treaty (1992).

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Russia generally follows the OECD Transfer Pricing Guidelines. The DEMPE approach was incorporated in the Russian Tax Code (article 105.5 (6(23))) and is in force since 1 January 2020. However, there is no specific guidance in Russia and case law relating to the application of these provisions to transactions with data. Therefore, foreign guidance such as the OECD TP Guidelines (2017), can be followed in case of applying these DEMPE provisions in practice to the extent it does not contradict the Russian Tax Code.

Current Russian practice demonstrates that the following methods are applicable for performing transfer pricing analysis in transactions involving intangible assets (including transfer of big data) between related parties: the CUP method, the TNMM, the profit split method and non-transfer pricing valuation techniques. However, the selection and application of the method for determination of market prices depends on contractual arrangements.

Thus, in case of a license agreement taxpayers usually apply the CUP method (which has priority over any other method according to Russian tax law and requires hard evidence of the inability to apply the CUP in order to apply other methods) provided information on comparable royalty rates is available or, failing that, the TNMM/PSM for evaluation of post-royalty profitability. However, the tax authorities tend to rely less on external CUPs when testing royalty transactions and have more interest in application of profitability-based methods. First the tax authorities did not support the application of the PSM method but now they consider it as an effective one for transactions related to intangibles.

When a company provides services that allow access to the user data for its related party, the CPM and the TNMM methods are typically used.

Considering the sale of access to a database containing raw data (as it is illustrated in

the example between Web Co and Broker Co) prices can be tested with the application of the CPM method since Web Co (which is also considered as a raw data broker) has only routine functions around raw data. At that point, the costs incurred by Web Co to acquire and maintain the user base and user data can be increased by mark-up consistent with those earned by raw data brokers in that jurisdiction typically engaged in collecting data on their websites.

In case of a license agreement between parties the CUP method or TNMM could be more appropriate as discussed above.

Valuation techniques are mainly used in case of a sale of property rights on hard to value intangibles provided such sale is a one-time transaction. Such techniques are carried out under the Federal law of 29 July 1998 No. 135-FZ "On valuation activities in the Russian Federation".

Part Four: Special Regimes

4.1. General overview

In recent years, the Russian government has paid greater attention to tax preferences for innovation activity. From 2005 there have been special zones available with attractive tax regimes for their residents and from 2021 the Tax Maneuver significantly reduces applicable corporate profits tax and social contribution rates for eligible Russian IT companies. In addition, Russian tax legislation provides tax allowances, tax credit, and other incentives for the IT industry which can be applicable to big data transactions.

IT regime (as introduced by Tax Maneuver for IT-companies)

As part of the anti-crisis tax measures caused by the COVID-19 pandemic the government of the Russian Federation decided to conduct a Tax Maneuver in the IT industry in 2020. The goal of such Tax Maneuver introduced by the Federal Law No. 265-FZ dated 31 July 2020 is to establish a tax regime (effective from 1 January 2021) for IT businesses in Russia that is much more beneficial than in such popular jurisdictions as India and Ireland. The Tax Maneuver is designed to provide IT companies with a new reduced tax rate of 3% on CIT, however, simultaneously previously available VAT exemption on disposal of software/databases is significantly reformed (foreign companies are mainly not entitled to such exemption anymore, while Russian companies can still apply it provided that their software/databases are included in the Russian National Software and Database Registry (the "Registry"), please refer to the section on "Indirect tax" for more details).

The new IT regime provides the following tax benefits:

- CIT tax rate is decreased from 20% to 3%,
- Social security contributions are reduced from 14% to 7.6%.

Such benefits are available only for the companies that simultaneously meet the following requirements:

- they are included in the Registry;
- the share of income from qualifying activities is at least 90% of total income for the

- relevant tax (reporting) period;
- the average number of company employees for the tax (reporting) period is at least seven.

Despite the fact that the IT regime applies to the overall company income (unlike typical IP-box regimes), it requires 90% of such income to be gained from qualifying activities. Qualifying activities are determined as follows:

- transfer of rights to use software/databases;
- provision of remote access to software/databases via the Internet;
- provision of services on adaptation, modification of software/databases;
- provision of services on installation, testing and maintenance of software/databases.

However, qualifying activities, in particular, do not include provision of access to software/databases which enable advertising to be disseminated on the Internet. This criterion jeopardizes the use of the IT regime by big companies, business models of which are mainly based on Internet advertisement.²⁰ Moreover, it is worth noting that foreign companies have rarely managed to register their software in the Registry.

As follows from the expert discussion of the Tax Maneuver for IT-companies it is aimed primarily at businesses operating inside the Russian IT market but not at the global market. This follows from the design of the legislation relying on the administrative registries of Russian IT companies and Russian software. In context of the global discussion on the Pillar 2 OECD Proposal, it can be noted that the level of effective taxation of profits under the Russian IT regime will likely be lower than the agreed level of global minimum tax under Pillar 2. That is why in the medium-term prospective the attractiveness of the regime as a tool of international tax competition can be lost because the profits of foreign subsidiaries in Russia will be taxed back at the residence state.

4.2. DST

Current Russian tax legislation does not contain DST rules. However, the legislative initiative on introducing DST was proposed by the Russian Federal Council and the Russian government discussed DST rate of 3%. The draft law has not been published. However, such rules are not expected to be introduced anymore in the light of the requirement to remove all Digital Services Taxes and other relevant similar measures under Pillar 1 agreed by the Russian Federation.

4.3. Incentives

There are several types of incentives in Russia which are briefly described below.

²⁰ In response to numerous appeals from taxpayers, the Ministry of Finance of the Russian Federation in the Letter dated 21 December 2020 No. 03-07-07/111669 provided the explanations regarding the “advertising” criterion as well as a number of other aspects of the application of tax preferences. In particularly, it stated that the operator of an electronic trading “advertising-oriented” platform is not eligible for these tax preferences.

Preferential tax treatment to R&D expenditures

Expenses on R&D activities falling under the list approved by the Russian government²¹ are deductible at a rate of 150% of their actual amount.²² The list of R&D activities is extensive, and among others includes development of technology of storing, providing and processing of information on computer systems.

Super deductible expenses at a preferential rate may include depreciation of fixed assets and intangible assets, labour costs, material costs, expenses on the acquisition of exclusive rights on inventions, utility models or industrial designs, cost of work under R&D contracts, other R&D expenses (in the amount of no more than 75% of labor costs). 150%-deduction of R&D expenses is to be claimed in the CIT return in the period when the R&D research is completed or when a stage of the R&D research is completed. A taxpayer shall submit a report on completed R&D research together with the CIT return.

Regional tax incentives

Regional governments may provide a CIT tax rate reduced to 15.5% (from the standard rate of 20%) for taxpayers conducting certain types of R&D activities. They may also set out a reduced property tax rate below the ordinary 2.2% rate (some regions introduce property tax exemption) on property used in R&D activities.

Special Economic Zones & Skolkovo

A taxpayer carrying out technological and innovation activities which, in particular, include the creation of data collection systems and related services, can apply for several tax benefits being a tax resident of Technology-Innovative Special Economic Zones (TI SEZs) or of the Skolkovo Innovation Center (Skolkovo).

Technology-Innovative Special Economic Zones

Currently, there are seven TI SEZs: Tekhnopolis (Moscow), Istok (Moscow Region), Dubna (Moscow Region), St. Petersburg, Tomsk, Saratov and Innopolis (the Republic of Tatarstan). They were created in accordance with the Federal Law No. 116-FZ dated 22 July 2005 "On the special economic zones in the Russian Federation".

The following tax preferences are basically available for the TI SEZs residents:

- Reduced federal tax rate of CIT equals 2-3% and regional tax rate up to 0% (depending on a particular TI SEZ)
- Exemption from property tax, land tax and transport tax (with time limited stated by TI SEZs)
- Reduced rate of social insurance contributions up to 14% (depending on a particular TI SEZ)

²¹ Decree of the Russian Government dated 24 December 2008 No. 988.

²² Art. 262 (7) of the Russian Tax Code.

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In order to receive the status of a resident of an TI SEZ, a taxpayer must be legally registered on the TI SEZ and enter into an agreement with the managing body of the TI SEZ on the performance of technological and innovation activities.

Skolkovo Innovation Center

A taxpayer with the status of resident of Skolkovo can be entitled to receive different tax benefits for the purpose of exercising specific R&D activities determined under the Federal Law No. 244-FZ dated 28 September 2010. Such activities include, in particular, strategic computer technologies and software programs. The residential status is granted for a maximum of ten years from the date of registration.

The following tax incentives are available for the Skolkovo residents:

- Exemption from profit tax (limited to ten years and period in which profits exceeded RUB 1 billion (approx. USD 13 mln)
- Exemption from VAT (limited to ten years and period in which profits exceeded RUB 1 billion (approx. USD 13 mln)
- Exemption from property tax (limited to ten years)
- Reduced social contribution rate of 14%

To become a participant of the Skolkovo, a taxpayer must be engaged only in R&D activities in accordance with incorporation documents and its executive management shall be based within the Skolkovo.

Tax incentives for buyers of Russian²³ IT solutions²⁴

- Accelerated depreciation: a multiplying coefficient of three for the depreciation rate of purchased domestic IT products;
- Investment tax deduction: it replaces the accrual of depreciation and allows a one-time reduction of income tax by the amount of certain expenses;
- Increased inclusion factor (150%) in the expenses of costs related to purchasing IT products in the field of artificial intelligence.

4.4. Barter treatment

No discussions have taken place in Russia on the barter nature of collecting data from users upon the provision of digital services without consideration to such users. However, since Russian VAT rules are applicable to barter transactions, the Russian tax authorities may in theory consider such barter transactions as a taxable supply. The taxable value of the supply of such digital services shall be determined as a monetary equivalent of the consideration on the basis of the market prices excluding VAT. Such VAT may be recovered.

²³ As listed in Unified Register of Russian Programs for Electronic Computers and Databases.

²⁴ Under discussion as stated by Action plan ("road map") "Creation of additional conditions for development of the information technology industry" (approved by the government of the Russian Federation on 9 September 2021).

Part Five: Indirect tax

Big data transactions are subject to Russian VAT rules²⁵ as they fall in the scope of supplies of services in electronic form under article 174.2 of the Russian Tax Code. This article explicitly states that licensing of databases (including by provision of remote access to them),²⁶ storing and processing information as well as provision of automated data searches and the provision of sorted data through an information and telecommunications network, are recognised as electronic services for the purposes of VAT rules. This implies that in case of supply of such services by a foreign company not having any physical presence in Russia²⁷ to a Russian customer, the foreign company has a liability to register as a taxpayer and to remit VAT in Russia. This can be done remotely by registering in the Online service of the Federal Tax Service “VAT Office for online service providers”.²⁸

The obligations of registering, accounting for and paying VAT by themselves are applicable with respect to B2C e-services from 2017. From 2019 the same obligations apply for foreign companies providing B2B e-services.²⁹ This VAT payment mechanism for B2B transactions was adopted despite the fact that it was not recommended by the OECD.³⁰ Such approach creates a risk for a Russian contractor since in order to recover the input VAT on a purchase of e-services they should be provided by foreign e-service suppliers with their VAT registration information. This issue was widely debated by business with the tax authorities. As a result of these discussion the Federal Tax Services of Russia issued a clarification in which it pointed out that foreign e-services providers must be registered with the Russian tax authorities and pay Russian VAT themselves and Russian companies do not act as a withholding agent (even if a foreign e-services provider failed to register). However, in case a Russian company still withholds VAT³¹ in a situation where the tax should have been paid by the foreign company, the tax authorities are not entitled to challenge the VAT deduction applied by the purchaser and claim the same tax from the foreign company again.³² Therefore, even though the reverse charge regime still may apply to import B2B e-services, the Russian tax legislation tends to establish an obligation to pay VAT by foreign companies themselves. At the same time a reverse charge regime applies for import of other services. This leads to ambiguity, especially in case of intra-group acquisitions of both

²⁵ Only if the place of supply is in Russia, meaning for B2B – customer is a legal entity (branch) registered with the tax authorities; and for B2C – the customer’s place of residence is in Russia; or payment for is made through a Russian bank; or the customer’s IP address is registered in Russia; or a customer used a phone number with Russia’s country code.

²⁶ Licensing of databases on tangible media is out of the scope of these rules in accordance with art. 174.2 of the Russian Tax Code, and ordinary VAT rules apply in this case.

²⁷ If a foreign company has a PE on the territory of Russia, it does not have to be registered with the Russian tax authorities and pay VAT on electronic services. VAT is paid in the ordinary way by such a PE.

²⁸ The VAT Office for online service provider <https://lkireg.nalog.ru/en> At the time of submitting this report by the branch reporters, more than 2,600 foreign companies had already been registered as taxpayers of VAT on e-services.

²⁹ The Federal Law of 27 November 2017 No. 335-FZ.

³⁰ See, for example, para. 3.129 of s. C.3.2 “VAT collection in cases where the supplier is not located in the jurisdiction of taxation” of the OECD International VAT/GST Guidelines, OECD, November 2015.

³¹ In that case a foreign company is still obliged to be registered with the tax authorities and submit a nil tax return. In case of failure to fulfil the registration requirement, a foreign company can be fined up to 40 % of the company’s income from Russian sources.

³² The Letter of the Federal Tax Services of Russia dated 24 April 2019 No. SD-4-3/7937.

services in electronic form and of other (non-digital) services from foreign suppliers. This is particularly relevant for the intra-group supply of services inside a MNE with its parent company in a foreign (European) country and with Russian subsidiaries.

Foreign companies have to apply a 16,67% tax rate on the cost of electronically supplied services including VAT. Russian subcontractors apply a 20% tax rate to the cost of services without VAT.

The Russian tax law stipulates an exemption from VAT for transfers of exclusive rights to software and databases and transfers of rights to use software and databases under a license agreement³³ including such transfers via the Internet.³⁴ However, from 1 January 2021 such exemption is significantly reformed – it is applicable only in cases when software and databases are recorded in the Russian National Software and Database Registry. Moreover, exemption is not available for software and databases that allow (1) to distribute advertising information on the Internet and (or) gain access to such information; (2) to post offers for purchase and sale of goods/services/works and property rights online, (3) to search for information about potential counterparties and (or) make deals.

As was mentioned in the guidance by the Ministry of Finance, SaaS (Software-as-a-Service) services are treated as supplies falling within the scope of Russian VAT and not qualifying for VAT exemption for licensing of IT products under article 149 (2(26)) of the Tax Code.³⁵ Another Letter by the Ministry of Finance explicitly mentioned that in case of mixed contracts containing both licensing provisions and other provisions, VAT exemption under 149 (2(26)) cannot be applied.³⁶ However, the mentioned reform of article 149 (2(26)) in force from 1 January 2021, results in the inclusion of updates and provisions of the remote access to software, databases, and rights for their use into the scope of this VAT exemption. Therefore, provisions of some SaaS services from 2021 are explicitly exempted from VAT (this exemption applies only to software and databases included in the Russian National Software and Database Registry).

³³ Art. 149 (2(26)) of the Russian Tax Code.

³⁴ Letter of the Ministry of Finance of the Russian Federation dated 12 January 2017 No. 03-07-08/555.

³⁵ Letter of the Ministry of Finance of the Russian Federation dated 30 November 2016 No. 03-07-08/70744. About application of VAT to supply of services of access to software through the Internet.

³⁶ Letter of the Ministry of Finance of the Russian Federation dated 27 November 2018 No. 03-07-07/85571.

Summary and conclusions

Singapore has emerged as a technology and big data hub which complements its position as a major international financial center and Asia-Pacific headquarters for several MNCs. In addition to the competitive tax regime, MNCs are attracted by a number of strategic advantages offered by the business-friendly ecosystem in Singapore.

The tax issues surrounding data transactions are impacted by the status of data and databases under intellectual property law. In Singapore, the law of copyrights and patents are the primary tools to protect rights in a database including the software, algorithms and application programming interface. However, as a general principle copyright protection is not available with respect to the data itself. Singapore law does not recognize *sui generis* database rights as accepted in the European Union.

Singapore has a territorial based tax system which taxes income that accrues in or is derived from Singapore or received in Singapore from outside Singapore. A rights-based approach is used for characterizing payments for software and use of information or digitized goods. It recognizes the difference between transfer of a 'copyright' and a 'copyrighted article'. A transfer of copyright typically allows the payer to commercially exploit the copyright. This is different from the transfer of a copyrighted article which only contemplates a limited right to enable the payer to operate the software or to use the information or digitized goods, for personal consumption or for use within business operations. Payments for transfer or license of a copyright may be characterized as royalty triggering deemed source rules and withholding tax obligations if the recipient is a non-resident.

In the case of a data broker who sells raw or aggregated data to a customer who redistributes the data to other persons, one could argue that although the customer is commercially exploiting the data, the data broker did not have a copyright in the data and hence the payments may not be in the nature of royalty.

In several data transactions, it is possible to take a view that supply of data is either a non-technical service or a sale of goods. In Singapore, the source rules applicable to trading or business income would apply in both cases.

Different source rules apply depending on how a transaction is characterized for tax purposes. Trading or business income is taxable if the trade or business is carried out within Singapore. Deemed source rules apply to royalty or payments for the use of or the right to use any movable property. They also apply to payments for the use of or the right to use scientific, technical, industrial or commercial knowledge or information or for the rendering of assistance or service in connection with the application or use of such knowledge or information. The deemed source rules do not apply to payments for the right to use software, information or digitized goods, not being a right to commercially exploit the copyright in the software, information or digitized goods.

¹ Tax Partner, Withers KhattarWong LLP, Singapore.

The presence of a server in Singapore which merely acts as a tool of communication usually does not result in the conduct of business or trade. In the context of data transactions, a key consideration is the place where the business is carried out and not where the database and software platform are hosted. However, if advanced and automated functions are performed by the server, this could be viewed as carrying on business in Singapore.

These outcomes also apply when viewed in the context of most of Singapore's treaties, which are broadly consistent with the OECD Model Convention with some exceptions. Payments for data transactions or services are likely to be treated as royalty only if there is a transfer of the copyright allowing the recipient to commercially exploit the data. A sever is generally not a permanent establishment unless it performs core business functions.

Singapore's transfer pricing regime permits adjustments to transactions between related parties that are not at arm's length. The transfer pricing guidelines in Singapore broadly align with the OECD guidelines and also take into account various BEPS related recommendations. CUP, cost plus or TNMM methods are often considered to be the most appropriate choice for related party services. The guidelines specifically comment on pass-through costs, routine support services and cost pooling arrangements. While database administration is a routine service, data analytics is not considered routine. In the functional analysis one can consider contributions by group entities in the development, enhancement, maintenance, protection and exploitation of intangibles such as the database, software, algorithms and APIs.

A number of tax incentives and concessions are available in Singapore which makes it attractive for tech companies including big data players to establish operations in Singapore.

GST is generally chargeable at the rate of 7% on the supply of goods or services in Singapore. The charge of GST applies irrespective of the medium of transfer, and electronic supplies of goods or services in Singapore may also attract GST. From 1 January 2020, the GST regime has been expanded to cover digital services rendered by an overseas supplier or an electronic marketplace supplying digital services on behalf of overseas suppliers to end customers in Singapore (on a business-to-customer basis). Whether a service provider or customer 'belongs to Singapore' can impact the obligation to charge GST. A foreign company with a business establishment or fixed establishment in Singapore is said to belong to Singapore. Overseas service providers who provide digital services through a server in Singapore may not have a fixed establishment in the absence of employees on the ground for a significant period of time. It is debatable whether this conclusion will change if the server and software platform are sufficiently automated and carry out core business activities in Singapore.

Introduction: Legal background

Singapore is in the heart of the digital transformation wave around the world which has been accelerated after the COVID lockdowns. Around 60% of the world's tech MNCs have a significant base or regional headquarters in Singapore. It is recognized as a preferred gateway to not just South East Asia but the whole of the Asia-Pacific region. A number of tech unicorns in the region are headquartered in Singapore with significant innovation,

research and development carried out onshore. Singapore is also a major financial center with over USD 3 trillion in assets under management.²

With the confluence of technology and finance, Singapore is also emerging as a major player in the big data industry. A number of MNCs are in the process of setting up data centers in Singapore. Recently a new tech pass was announced to assist accomplished tech entrepreneurs and specialists in shifting to Singapore to pursue a number of tech related ventures and other activities.

Singapore's competitive tax regime and well-conceived tax concessions have also been key considerations for MNCs who choose Singapore. However, the major attraction is perhaps the wider ecosystem of Singapore which is known for its reputation, economic and political stability, business friendly and efficient government, access to markets and capital, IP protection, ease of enforcing contracts, best in class infrastructure, travel and trading hub and other strategic differentiators. The World Economic Forum ranked Singapore as the world's most competitive country and second in the world for intellectual property ("IP") protection.³ Singapore was also ranked second in World Bank's Ease of doing Business survey.⁴

The large number of technology and big data players setting up a base in Singapore will push the country and its tax treaties to the forefront in debates surrounding big data and tax. Singapore's approach to taxation of digital transactions is pragmatic and consistent with OECD driven international standards. It is possible to apply existing rules under domestic law and tax treaties while determining tax outcomes in various data centric business models.

Part One: Basic principles: Character, source and nexus

1.1. General overview of legal issues concerning Big Data

The world of big data is centered on electronic databases that typically comprise software, code and algorithms to extract, store and sort data, in some cases create new data based on data collected, and ultimately present the data to a user. Different legal considerations may potentially apply to databases and the data that is stored.

In Singapore, the laws of copyrights and patents are the primary tools to protect rights in a database. The Copyright Act specifically recognizes computer programs and compilations as a literary work.⁵ Therefore, the database software including the algorithms and application programming interface ("API") can be protected under copyright law. Certain

² [https://www.straitstimes.com/business/banking/singapores-assets-under-management-jumped-157-to-4-trillion-in-2019-mas#:~:text=Assets%20under%20management%20\(AUM\)%20by,on%20Wednesday%20\(Sept%2030\).](https://www.straitstimes.com/business/banking/singapores-assets-under-management-jumped-157-to-4-trillion-in-2019-mas#:~:text=Assets%20under%20management%20(AUM)%20by,on%20Wednesday%20(Sept%2030).)

³ World Economic Forum's Global Competitiveness Report 2019.

⁴ World Bank Group, Doing Business 2020.

⁵ S. 7A, Copyright Act. This is consistent with art. 10(2) of the Agreement on Trade-Related Aspects of Intellectual Property Rights which requires countries to protect "compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations."

inventions within an electronic database may also be protected as a software patent under the Patents Act if the relevant criteria are met.

The legal issues surrounding protection of data are not straightforward. The Copyright Act provides that the copyright in a compilation is available to the extent of the intellectual creation in the selection or arrangement of its contents.⁶ However, as a general principle, copyright protection is not available with respect to the data itself.

The Singapore Court of Appeal held that a copyright subsists when the literary creation is product of application of intellectual effort, creativity or the exercise of mental labour, skill or judgment of a human.⁷ The law specifically provides that copyright protection is available to works created by an author who is a citizen or resident of Singapore or of any country which is a party to the Berne Convention or a member of the World Trade Organization.⁸ Therefore, the concept of copyrighted works having a human creator is entrenched, and it is difficult to say that copyright subsists in auto-generated compilations of data. Ambiguities arise while considering original literary work which is a product of artificial intelligence ("AI") or software that mines and analyzes raw data to compile something new and perhaps unique. Courts all over the world are still trying to stretch existing rules to cover unique work products of AI or software-driven data analytics with diverging conclusions, and a consistent approach appears unlikely to emerge in the short-term.

Singapore law does not recognize *sui generis* database rights as accepted in the European Union which protect the structure of a database and extraction or reutilization of the whole or substantial part of a database. It has been argued that there is no incentive to introduce such a right and that such rights may also promote monopolistic practices by large database creators which may stifle innovation.⁹

As an alternative to copyright protection, certain remedies may exist under the law of confidence where it is not necessary to satisfy the test of originality or creative expression. Rights may exist with respect to confidential data that are not freely available in public domain and disclosed to certain people in confidence.¹⁰ Certain confidential information may also be protected as trade secrets. This may include data about pricing, customer and supplier lists, market projections, etc. which may be vital for a business to stay competitive in the market.

The status of data and databases under intellectual property law is key to an analysis of the tax outcomes of various data related transactions.

1.2. General overview of taxation in Singapore

Singapore has a territorial based tax system which taxes income that accrues in or is derived from Singapore or received in Singapore from outside Singapore.¹¹ Taxable income may include profits from business or trade, gains from employment, dividends, interest, royalties and other types of income. Capital gains are not taxable in Singapore.

⁶ S. 7A, Copyright Act.

⁷ *Global Yellow Pages v Promedia Directories Pte Ltd*, [2017] 2 SLR 185, CA.

⁸ S. 27, Copyright Act; Regulation 3, Copyright (International Protection) Regulations.

⁹ Singapore Academy of Law, Law Reform Committee, *Rethinking Database Rights and Data Ownership in an AI World*.

¹⁰ *I-Admin (Singapore) Pte Ltd v Hong Ying Ting and others*, [2020] SGCA 32.

¹¹ S. 10, Income Tax Act ("ITA").

A company is considered resident in Singapore if its control and management is exercised in Singapore.¹² Corporate profits are taxed at the rate of 17%.¹³ Income derived from a trade or business carried on in Singapore is generally considered to be sourced in Singapore even if the payments are received outside Singapore. Specific exemptions are provided for certain types of foreign source dividends, foreign branch profits and foreign sourced service income derived by Singapore resident companies.¹⁴

Non-resident companies may be taxed on Singapore source income. In certain cases tax may have to be withheld on payments to non-residents. The withholding tax rate is 10% for royalties, payments for the use of moveable properties and payments for the right to use scientific, technical, industrial or commercial knowledge or information.¹⁵ Fees for technical assistance and services are subject to withholding tax at the corporate tax rate.

1.3. Characterizing data transactions for tax purposes

In the context of data driven transactions, one may consider whether the payments may be characterized as (i) royalty, (ii) payments for use of scientific, technical, industrial or commercial knowledge or information, or for the rendering of assistance or service in connection with the application or use of such knowledge or information, (iii) payments for services, or (iv) consideration for sale of goods or property. The first two categories (i.e. royalty and payment for supply of technical know-how) are subject to certain deemed source rules in Singapore.¹⁶

The Inland Revenue Authority of Singapore ("IRAS") issued guidance on characterizing payments for software and use of information or digitized goods.¹⁷ It adopted a rights-based approach which is consistent with international practice.

The IRAS differentiates between transfer of a 'copyright' and a 'copyrighted article'. A transfer of copyright typically allows the payer to commercially exploit the copyright. This may include the right to reproduce, modify or adapt and distribute the software, information or digitized goods; or prepare derivative works based on the copyrighted software program, information or digitized goods for distribution. This is different from the transfer of a copyrighted article which only contemplates a limited right to enable the payer to operate the software or to use the information or digitized goods, for personal consumption or for use within business operations.

If a transaction involves transfer or license of a copyright, the payment may be characterized as royalty, resulting in a withholding tax obligation if the recipient is a non-resident. However, if the owner of the copyright completely assigns or transfers the

¹² S. 2, ITA. One would typically consider the location where the company's board of directors makes strategic decisions for the company (as opposed to routine operational or administrative decisions).

¹³ A partial tax exemption and tax exemption scheme for new start-up companies is also available up to a portion of a company's taxable profits.

¹⁴ S. 13(8), ITA.

¹⁵ The withholding tax rate may increase to 17% if the royalty or payments are derived by a non-resident company through its operations in Singapore.

¹⁶ See para. 1.4 of this article.

¹⁷ IRAS e-Tax Guide, *Rights-Based Approach for Characterising Software Payments and Payments for the Use of or the Right to Use Information and Digitised Goods*.

copyright, the sale consideration may be treated as capital gains or business income (if the copyright was held as stock in trade).

The IRAS guidance specifically highlights a scenario where payments are received by companies like Bloomberg or Lexis-Nexis for providing access to data and information on their platforms. Many subscribers to the database may use this information for business purposes. However, such use is not considered to result in commercial exploitation of a copyright. Further the terms of the subscription contract may prevent the subscriber to on-license or redistribute the database and its contents and restrict usage for the subscriber's analysis or reports.

In this example there is an assumption that the service provider had a copyright in the data that is shared. However, in several data transactions it is possible that the service provider only has a copyright in the database software but not in the data compiled and made available through the digital platform. Consider a data broker or information seller who sells raw or aggregated data to a customer who further sells or redistributes the data with or without alteration to other persons. Although the customer is commercially exploiting the data, one could argue that the data broker did not have a copyright in the data and hence the payments may not be in the nature of royalty.

The Commentary to the OECD Model Convention considers 'know-how' to refer to undivulged information of an industrial, commercial or scientific nature arising from previous experience, which has practical application in the operation of an enterprise and from the disclosure of which an economic benefit can be derived.¹⁸ For royalty characterization, the supply of technical or scientific knowledge should enable the recipient to independently apply the know-how without the involvement of the supplier. The OECD recognizes the clear distinction between supply of technical know-how and provision of technical assistance or services by a person using technical know-how.

In Singapore, the deemed source rules can also apply to services in connection with the application or use of technical or scientific knowledge. This may cover for instance, a franchising arrangement where technical services and assistance may be provided to the franchisee along with transfer of know-how. One may possibly argue that a payment for technical services to a non-resident (without business operations in Singapore) is not Singapore sourced unless the contract also involves transfer of technical knowledge.

In the previous example, if the database contains data allowing users to access technical, scientific, industrial or commercial information, it is possible that the deemed source rules may apply even if the payments for access to the data may not be royalty (assuming the service provider does not own the copyright in the data). Likewise, certain data analytics offerings may also generate revenues in the nature of fees for technical assistance or services.

While providing guidance on source rules applicable to e-commerce transactions, the IRAS refers to scenarios involving the supply of digitized goods through a website.¹⁹ In the context of the goods and services tax (GST), there is IRAS guidance referring to supply of digital content as a digital service.²⁰ In several data transactions, it is possible to take a view that supply of data is either a non-technical service or a sale of goods. The source rules applicable to trading or business income would apply in both cases.

¹⁸ Para. 11, OECD Commentary on art. 12 of the Model Tax Convention.

¹⁹ IRAS e-Tax Guide, *Income Tax Guide on E-Commerce*.

²⁰ IRAS e-Tax Guide, *GST: Guide for E-Commerce*.

1.4. Source and nexus

Different source rules apply depending on how a transaction is characterized for tax purposes.

Trading or business income is taxable if the trade or business is carried out within Singapore.²¹ The application of this test would depend on the nature of the trade or business. Based on numerous cases in various common law countries, one can consider factors such as the place where contracts are made, place of payment or delivery of goods or services, the originating cause or the location of activities undertaken for generating income and the place where business operations are carried out.

In Singapore, deemed source rules apply to certain types of income including the following:²²

- royalty or payments for the use of or the right to use any movable property; and
- payments for the use of or the right to use scientific, technical, industrial or commercial knowledge or information, or for the rendering of assistance or service in connection with the application or use of such knowledge or information.

Such income is deemed to be derived from or sourced in Singapore if the payments are borne by a Singapore resident or a permanent establishment (“PE”)²³ in Singapore (except in respect of a business carried on outside Singapore through a PE outside Singapore) or which are deductible against any income accruing in or derived from Singapore.

The deemed source rules in section 12(7) do not apply to certain transactions including the following scenarios:²⁴

- Payments for services rendered in connection with the application or use of scientific, technical, industrial or commercial knowledge or information where the (i) service provider is not incorporated or registered in Singapore, and (ii) the services are performed outside Singapore and not through a PE or business in Singapore.
- Payments for the right to use software, information or digitized goods,²⁵ not being a right to commercially exploit²⁶ the copyright in the software, information or digitized goods.

In the context of e-commerce transactions, the IRAS has provided guidance²⁷ on source rules and taxability of income in various scenarios including the following:

²¹ The only Singapore tax case on this source rule was the Board of Review's decision in *TTT Pte Ltd v. Comptroller of Income Tax*, (1995) 2 MSTC 5189 which relied on other court decisions.

²² S. 12(7), ITA.

²³ The definition of permanent establishment in s. 2 of the Income Tax Act includes a fixed place of business, branch, place of management and a person in Singapore who habitually exercises the authority to conclude contracts, maintains a stock of goods or secures orders on behalf of the overseas entity.

²⁴ S. 12(7A), ITA. The exemption may be denied if the transaction is not carried out at arm's length or is meant to avoid taxes.

²⁵ This refers to text, images or sounds that are transferred through a handphone, fixed-line phone, cable network, satellite, the internet or other forms of electronic transmission.

²⁶ This includes exercising the right to reproduce, modify or adapt, and distribute the software, information or digitized goods; or prepare a derivative work based on the software, information or digitized goods for distribution.

²⁷ IRAS e-Tax Guide, *Income Tax Guide on E-Commerce*.

- Company with business operations in Singapore sells digitized goods through a website hosted in Singapore: Business profits are clearly taxable in Singapore.
- Company with business operations in Singapore sells digitized goods through a website hosted outside Singapore: Business profits may be taxed in Singapore if activities such as sourcing of content, business promotion, after-sales support and other key business functions are performed in Singapore.
- Company with business operations in Singapore and a foreign branch sells digitized goods through a website hosted outside Singapore: Business profits may not be taxed in Singapore if the key business activities are carried out through the foreign branch.
- Company with business operations outside Singapore sells digitized goods through a website hosted in Singapore: If the key business functions are performed outside Singapore, the income is not sourced in Singapore and hence not taxable.
- Company with business operations outside Singapore and a Singapore branch sells digitized goods through a website hosted in Singapore: There is taxable Singapore source income only if the key business functions are performed through the Singapore branch.

The IRAS also clarified that the mere presence of a server in Singapore does not result in conduct of business or trade in Singapore. This assumes that the server is only a tool of communication and that the service provider does not carry on business in Singapore or through a PE in Singapore.

These source and nexus principles can also be applied to data transactions. For payments in the nature of business or trading income, the key consideration is the place where the business is carried out and not where the database is hosted. This includes activities such as development, compilation and maintenance of the database and overall platform, business promotion and after-sales support.

The deemed source rules may apply if the payments for data services or use of the database are characterized as royalty or payments for transfer of technical or scientific know-how. The Singapore resident payer would have to withhold tax on such payments made to a non-resident service provider.

A different outcome may arise if the server is not merely a communication tool. Consider the example of a non-resident service provider hosting a database and the analytics software in a Singapore based server. It is possible that the software may be capable of advanced functions and have algorithms and APIs for analyzing data, predicting trends and delivering customized reports to subscribers. In certain cases it is possible that such advanced and automated functions performed by the server may be viewed as carrying on business in Singapore. Payments for services provided through such a server may then be considered as Singapore source taxable income.

Part Two: Application of treaty principles

2.1. General overview

Singapore presently has 86 comprehensive tax treaties. Treaties have been signed with most of the major trading partners with the exception of the United States. Singapore is also a signatory to the OECD Multilateral Instrument. Once a treaty is ratified, they

are incorporated into domestic law through a Ministerial Order.²⁸ While the OECD Commentaries are not binding in Singapore, they provide guidance while interpreting Singapore's treaties which are largely consistent with the OECD Model Convention.

The application of a tax treaty may modify the outcome under Singapore domestic law. In the context of data transactions it is relevant to consider specific provisions dealing with royalties and PE.

2.2. Detailed comments

Article 12 of the 2017 OECD Model Convention defines 'royalty' to cover payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trademark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.

The OECD Commentary clarifies that payments for digital products downloaded for the customer's own use is not royalty.²⁹ It differentiates this scenario from that of a book publisher who pays to acquire a copyrighted picture electronically downloaded for the purpose of including it in the cover of a book. Likewise, payments for transfer of technical know-how or information can be considered royalty if the know-how is itself shared as opposed to a provision of services using technical know-how.

Singapore's rights-based approach for characterizing payments for digitized products is consistent with the OECD approach. It recognizes the difference between a copyrighted product and the copyright. The ITA prescribes deemed source rules for certain payments including royalties and payments of technical or scientific information.³⁰ However these rules specifically do not apply to payments for the right to use software, information or digitized goods without the right to commercially exploit the copyright.³¹

Most Singapore treaties do not have a separate provision covering fees for technical, managerial and consultancy services. The treaty with Malaysia is an exception. The treaty with India covers such services only to the extent that it is ancillary to a license of intellectual property, makes available technical know-how or involves the development and transfer of a technical plan or design enabling the recipient to apply the technology.³²

Under domestic law, a non-resident may be taxed on business or trading income derived from operations carried out in Singapore. As explained above, several factors can determine whether the source of income is in Singapore. However, when a treaty applies, article 5 lays down objective criteria for creating a PE. A PE is typically created if the non-resident has a fixed place of business, branch, place of management or a dependent agent in Singapore.³³ The PE definitions in many of Singapore's treaties are generally aligned with article 5 of the OECD Model Tax Convention. Some of Singapore's treaties also include service PE provisions which apply when services are rendered through an individual spending a certain amount of time in the other country.

²⁸ S. 49, ITA.

²⁹ Para. 17.3, OECD Commentary on art. 12 of the Model Tax Convention.

³⁰ S. 12(7), ITA.

³¹ S. 12(7A).

³² Art. 12, Double tax avoidance agreement between Singapore and India.

³³ Other criteria may apply depending on the treaty.

The OECD Commentary considers the possibility of a server or automated equipment being considered a PE.³⁴ Although the website or the software may not be considered a fixed base, it may be possible to treat a server as a fixed place of business if there is a degree of permanence in time and location. One also has to consider whether the server is at the disposal of the enterprise which could be the case when the server is managed by a third party.

The IRAS guidance suggesting that a server does not create a PE assumes that the server is merely a communication link. The OECD Commentary also suggests that such activities including other functions such as advertising, gathering market data and supplying information are ancillary or auxiliary activities and hence exceptions to the fixed base PE rule. Singapore has also adopted Option B of article 13 of the MLI which further strengthens the application of the ancillary activity exception for fixed base PE.

If the automated equipment carries out core business activities it may not be covered by the exception. In this regard, the OECD Commentary notes the example of a piece of equipment that undertakes various activities automatically such as conclusion of contracts, processing payments and delivery of products.

Under most of Singapore's treaties, payments for data transactions or services are likely to be treated as royalty only if there is a transfer of the copyright allowing the recipient to commercially exploit the data. In other cases, the payments are likely to be treated as business profits taxable if attributable to a PE. As technology evolves, there is a risk that servers and automated equipment processing big data and performing core business functions may be treated as a PE if the ancillary activity exemption does not apply.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Singapore's transfer pricing regime permits adjustments to transactions between related parties that are not at arm's length.³⁵ Detailed rules on the application of the arm's length standard are set out in the Transfer Pricing Guidelines issued by IRAS. The guidelines broadly align with the OECD transfer pricing guidelines and also take into account various BEPS related recommendations.

The Singapore Transfer Pricing Guidelines have specific guidance on related party services.³⁶ CUP, cost plus or TNMM methods are often considered to be the most appropriate choice for related party services.

Certain costs may be passed to related parties without markup when the procuring entity does not enhance the value of services that are for the benefit of and the legal or contractual liability of the related party. The group service provider may have to charge a mark-up for its role in procuring services on behalf of related parties.

The guidelines also identify a list of routine support services for which a 5% cost mark-up is considered to be reasonable. These services include technical assistance in relation

³⁴ See paras. 120-132, OECD Commentary to the Model Tax Convention.

³⁵ S. 34D, ITA.

³⁶ Ch. 12, Singapore Transfer Pricing Guidelines.

to IT hardware and infrastructure, database administration, maintenance and storage of data. Data analytics are however not considered routine services.

In certain cases, payments may be charged to related parties under a cost-pooling arrangement without mark-up. This applies only to certain routine services which are not the principal activity of the service provider.

The Singapore transfer pricing guidelines do not specifically refer to the development, enhancement, maintenance, protection and exploitation (“DEMPE”) analysis in the context of intangibles. However, it should be possible to include this approach suggested in the OECD Transfer Pricing Guidelines³⁷ as part of the functional analysis.

Using the DEMPE analysis one can factor in the role of multiple group entities in the creation of an intangible. In the context of big data, the key functions may include design of the database, software platform, algorithms and APIs, ongoing research and development including enhancements to the platform, strategic decisions and creative direction in relation to the database and product offering, decisions and actions to protect the intangible and ensure quality control, marketing functions that enhance the brand value of the intangible product, routine functions such as maintenance of server, troubleshooting and customer support. All these functions and services provided by related entities in the group can be compensated on an arm’s length basis.

Part Four: Special regimes

4.1. General overview

Singapore has not introduced or contemplated a digital services tax like the type introduced in the UK or France. However, from this year the GST regime was expanded to tax digital services provided by certain overseas service providers.³⁸

A number of tax incentives and concessions are available in Singapore which makes it very attractive for tech companies including big data players to establish operations in Singapore.

4.2. Incentives

Singapore provides generous tax deductions to companies that incur expenses on research and development (R&D) in Singapore. These include an enhanced deduction for certain qualifying R&D expenses³⁹ which are subject to specific conditions.

The intellectual property development incentive contemplates a tax rate of 5% or 10% on qualifying IP income determined on the basis of the modified nexus approach.⁴⁰ If approved, this concessionary tax rate may be available to certain approved companies for periods of up to ten years subject to specific conditions including investment, expenditure and employment commitments.

³⁷ Para. 6.32, OECD Transfer Pricing Guidelines.

³⁸ See part 5 of this report.

³⁹ S. 14D, ITA.

⁴⁰ S. 43X, ITA.

Certain approved companies may qualify for a tax exemption for 5 to 15 years for certain qualifying services under the pioneer tax incentive. A concessionary 5% tax rate is available for periods of ten years under the development and expansion incentive for approved companies that expand or upgrade their operations in Singapore. These incentives are also subject to conditions which may include investment, expenditure and employment commitments.

Such incentives, along with other tax concessions and Singapore's generally competitive tax regime, will continue to attract tech companies including big data operators to set up operations in Singapore.

Part Five: Indirect tax

GST is generally chargeable at the rate of 7% on the supply of goods or services in Singapore. It was announced that the GST rate will increase to 9% but the implementation has been deferred for now. A person who makes taxable supplies of goods and services in Singapore exceeding SGD 1 million is typically required to get registered. The GST Act specifies scenarios where certain supplies (such as goods and services that are exported) may be zero rated.

The charge of GST applies irrespective of the medium of transfer and electronic supplies of goods or services in Singapore may also attract GST. From 1 January 2020, the GST regime has been expanded to cover digital services rendered by an overseas supplier or an electronic marketplace supplying digital services on behalf of overseas suppliers to end customers in Singapore (on a business-to-customer or "B2C" basis).⁴¹ These suppliers now have to register for GST under the overseas vendor registration ("OVR") regime as long as their total value of taxable supplies (including supplies outside Singapore which would have been taxable supplies if made in Singapore) exceeds SGD 1 million and the total value of digital services supplied in Singapore exceeds SGD 100,000 in a year.

Digital services include downloadable digital content, subscription based media, software programs, electronic data management, supply of any digital product or making available of any database, and related support services through electronic means.

Under the GST Act, certain services can be zero-rated if they are provided to a person who does not 'belong to Singapore'. The OVR regime also applies to suppliers of digital services who 'belong' outside Singapore. The 'belonging' status of an entity or individual is different from a general understanding of a PE. The IRAS has provided guidance on this topic.⁴² A company or partnership is said to belong to Singapore if it is constituted in Singapore or has a business establishment or fixed establishment in Singapore. The service provider also has to consider if the customer has an address in Singapore or a Singapore domain name (e.g. abc@xyz.com.sg) or Singapore IP address. For individuals, one would also consider declarations of their usual place of residence.

A service provider may have a business establishment in Singapore if the main seat of

⁴¹ S. 8(1A) and Seventh Schedule, GST Act.

⁴² IRAS e-Tax Guide, *GST: Guide for E-Commerce* and IRAS e-Tax Guide, *GST: Guidelines on Determining the Belonging Status of Supplier and Customer*.

economic activity⁴³ is in Singapore or if it has a branch or dependent agent in Singapore. It may have a fixed establishment in Singapore if the human and technical resources for providing the services are present in Singapore with a degree of permanence. The IRAS guidance states that the mere presence of a server without human resources in Singapore may not create a fixed establishment. In this regard, one would only consider human resources who are employed by a company and not those employed by a third party or sub-contractor.

Data transactions resulting in supply of goods or services in Singapore would be subject to GST. B2C supplies of digital services by overseas service providers to customers who belong to Singapore may also be subject to GST. Overseas service providers who provide digital services through a server in Singapore may not have a fixed establishment in the absence of employees on the ground for a significant period of time. It is debatable whether this conclusion will change if the server and software platform are sufficiently automated or have AI capabilities that allow core business functions to be carried out through the server in Singapore without human intervention.

The IRAS has clarified that the exchange of virtual currencies for goods and services is a barter trade that can result in a GST charge. However, the author is not aware of any discussion in Singapore on whether sharing of personal data for 'free' digital services is in the nature of a barter transaction. One may possibly argue that due to restrictions under data protection laws, personal data should not be viewed as implied consideration for services.

⁴³ Generally referring to the place where essential decisions or general management is undertaken, where board meetings are held or senior executives carry on their activities.

Summary and conclusions

South Africa's legislative and policy response to the digitalization of the economy has been limited to date. South Africa currently thus applies its existing income tax legislation to tax domestic and international data driven businesses and other business models associated with the digitalized economy. South Africa follows a residence-based tax system and the taxation of highly digitalized domestic businesses are of a lesser concern than that of highly digitalized multinational entities (MNEs) that create value within South African borders. This is mainly due to the risks associated with the business models within the digitalized economy and base erosion and profit shifting that is further enabled by these business models.

The indirect tax legislation was amended in 2013 in to include digital services, as defined, by both domestic and international suppliers. This enables South Africa to levy Value Added Tax (VAT) of 15% on digital services supplied by foreign suppliers such as data driven businesses if all conditions are met as set out in this report. The enforcement of this legislation does, however, remain a challenge due to various factors but mainly due to the intangible nature of digital suppliers such as data driven businesses which requires further reform in the tax risk management and the assurance process. The mere legislative and policy amendments do thus not guarantee the reduction of BEPS associated with highly digitalized MNEs.

In summary significant scope exists in South Africa for further tax reform in response to the digitalization of the economy and the associated business models such as data driven businesses.

Introduction: Legal background

This branch report refers to the general description of commercial law principles described in the general report. Legislation specific to South Africa and relevant to big data includes the Constitution of the Republic of South Africa 1996, (hereafter 'the Constitution'), the Electronic Communications and Transactions Act, 25 of 2002 (ECTA), the Promotion to Access to Information Act 2 of 2000 (PAIA), Regulation and Interception of Communications and Communication-related Information Act 70 of 2002 (RICA), the Electronic Communications Act 36 of 2005 (ECTA) and the Protection of Personal Information Act, 4 of 2013 (POPIA).

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The main constitutional provision of particular importance to big data is section 14 of the Constitution which guarantees the right to privacy. The ECTA regulates the electronic collection of personal information but compliance with these provisions is voluntary. The provisions of the ECTA pertaining to the protection of personal information will be repealed on 30 June 2021 and replaced by POPIA.

The RICA intends to regulate the interception of certain communications, the monitoring of certain signals and radio frequency spectrums and the provision of certain communication-related information. It further regulates the making of applications for, and the issuing of, directions authorising the interception of communications and the provision of communication-related information under certain circumstances. In addition to this, RICA also regulates the execution of directions and entry warrants by law enforcement officers and the assistance to be given by postal service providers, telecommunication service providers and decryption key holders in the execution of such directions and entry warrants.

The ECTA provides for the facilitation and regulation of electronic communications and transactions. It further promotes universal access to electronic communications and transactions and the use of electronic transactions by small and medium entities. The ECTA also aims to prevent the abuse of information systems.

POPIA was promulgated into law on 26 November 2013. It gives effect to the constitutional right to privacy by safeguarding personal information collected, processed and stored. POPIA is in essence, aligned with international standards. It, furthermore, provides persons the rights and remedies to protect their personal information. The majority of the operative provisions came into effect on 1 July 2020 by virtue of Promulgation No. R21 of 2020.

POPIA applies to the processing of personal information by a '*responsible party*'. A '*responsible party*' is defined in the act to be 'a public or private body or any other person which alone or together with others determines the purpose and means for processing personal information'. Both the South African Revenue Service (SARS) and data driven businesses are thus included in this definition.

Included in this interconnected legislative ecosystem, is the SARS who is mandated to collect all tax revenue due and ensure the optimal compliance with tax, customs and excise legislation. For the purpose of this report, the main tax acts applicable are the Tax Administration Act No. 28 of 2011 (TAA), the Income Tax Act No. 58 of 1962 (ITA) and the Value-Added Tax Act No. 89 of 1991 (VAT Act). The application of this legislative ecosystem with specific reference to domestic and international taxation of data driven business is discussed in detail in the following paragraphs.

Part One: Basic principles: Character, source and nexus

1.1. General overview

The ECTA, in collaboration with the acts specified in the introductory paragraph, aim to regulate the legal principles which govern electronic communications and related transactions. However, South Africa currently does not have legislation in place that specifically make reference to and regulates data transactions such as 'raw data transactions', 'aggregated data transactions' and 'big data analytics'.

1.2. Character

Except for the indirect tax legislative amendments discussed in Part Five of this branch report, South Africa has made limited amendments to its tax legislation to address tax administration challenges associated with the digitalized economy. Specific reference in the relevant tax acts to address challenges such as the identification and characterization of data transactions have not been included in any of the tax acts to date.

1.3. Source

South Africa follows a residence-based system of taxation. South African residents are, in terms of this system, taxed on their world-wide income in South Africa. Non-residents are liable for tax in South Africa if they have earned income from a South African source. Except for the indirect tax legislative amendments discussed in Part Five of this branch report, no specific guidance has been issued with relation to data-driven transactions and source of taxation. 'Source' is not defined by the act and reference is currently made to case law (*CIR v Lever Brothers & Unilever Ltd* (1946 AD 441) 14 SATC 1) for interpretation purposes.

Big data businesses will be regarded as being a 'resident' of South Africa as defined in section 1 of the ITA if it is incorporated, established or formed in South Africa or if its place of effective management is situated in South Africa. 'Place of effective management' is not defined by the act, but an interpretation note was issued by SARS in which the 'place of effective management' is deemed to be the place from which the day-to-day management of the company takes place by senior management or the directors. This guidance is, however, highly susceptible to manipulation within the digitalized economy and its associated business models as a company can be managed in South Africa although controlled by its shareholders from abroad.

Foreign big data business will in terms of the existing legislation be taxed in South Africa if the income derived from such data activities ('raw data', 'aggregated data transactions' and 'data analysis') are sourced or deemed to be sourced (section 9 of the ITA) within South African judicial borders (provided that all other tax legislative requirements for income recognition are met).

1.4. Nexus

Except for the indirect tax legislative amendments discussed in Part Five of this branch report, South Africa has not made any amendments to the ITA that make specific reference or provision for business models associated with the digitalized economy. Specific tax laws or guidance to determine tax nexus for data transactions are thus not available.

The normal taxing principles in terms of existing tax law are thus still applied to both domestic and international data driven businesses which include but is not limited to section 9D, 'Net income of controlled foreign companies', of the ITA.

Part Two: Application of treaty principles

2.1. General overview

South Africa has not made specific amendments to its tax treaties to accommodate business models associated with the digitalized economy such as data driven businesses. The allocation of income generated by data driven businesses are thus not specifically regulated by South Africa's current tax treaties. Heavy reliance is still placed on article 5 'Permanent Establishment' and article 7 'Business Profits', of most of South Africa's treaties, when the tax position of highly digitalized multi-national entities is evaluated.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Section 31 of the ITA regulates taxes payable in respect of international transactions and the arm's length principle. Section 31(1) grants the SARS powers to adjust the value of consideration of goods and services to a price which is in line with the open market under conditions that would have existed between unconnected parties under similar circumstances. The act has, however, not been amended to make specific reference to data driven businesses or other business models associated with the digitalized economy.

Part Four: Special regimes

4.1. General overview

South Africa has not developed any special regimes to address specific tax challenges associated with the digitalized economy and/or big data driven businesses.

Part Five: Indirect Tax

South Africa amended its Value Added Tax Act no. 89 of 1991 (VAT Act) in 2013 with an effective date of 1 June 2014 to make provision for 'electronic services' as defined by section 1 of the VAT Act. Further amendments were made which came into effect on 1 April 2019.

'Electronic services' are defined as 'any services supplied by means of an electronic agent, electronic communication or the internet for any consideration'. This definition specifically excludes educational services, telecommunications services or intra-group supplies. From the definition, the inference can be drawn that data transactions such as 'raw data transactions', 'aggregated data transactions' and 'big data analytics' will be included under the broad definition of 'electronic services'.

'Electronic services' are taxed at place of consumption. Section 7(1)(c) states that VAT

will be levied in South Africa on electronic services supplied by a foreign supplier if at least two of the following circumstances are present:

- (aa) The recipient of those electronic services is a resident of the Republic;
- (bb) any payment to that person in respect of such electronic services originates from a bank registered or authorized in terms of the Banks Act, 1990 (Act No. 94 of 1990);
- (cc) the recipient of those electronic services has a business address, residential address or postal address in the Republic.

Other requirements that should apply in order for 'electronic services' to be taxable in South Africa are that the foreign supplier should be regarded as an 'enterprise' as defined by the VAT act (section 1) and the value of taxable supplies must exceed ZAR1 million in any consecutive 12-month period (section 23(1A)).

Part Six: Tax accounting

No areas of material uncertainties or anomalous results for big data transactions were identified as South Africa is still in the inception phase, from a tax legislative and policy perspective, with regard to its response to the digitalized economy and the related business models.

Part Seven: Other

Cognizance should be taken of the fact that tax legislation and policy cannot be evaluated in isolation. The tax administration system in its totality requires reform to optimize its ability to reduce BEPS within a digitalized economy and ensure an optimized tax administration. Such reform requires a holistic approach which includes, amongst others, people, processes, data, information technology and law.

An important element of this reform and which is applicable to big data businesses, is the tax risk assessment and assurance process. The intangible nature of most business types associated with the digitalized economy increase the risk of non-registration within the required tax jurisdictions. In cases where the relevant businesses are not registered for tax or the tax risk management system does not identify foreign businesses that create value from South African sources, the relevant tax legislation cannot be enforced.

Developing economies' response to adjust their overall tax system to optimize tax administration within the digitalized economy prove, in general, to be limited in comparison to that of developed economies.

Reference case studies

South Africa does not currently have relevant case studies to report. This is mainly because limited legislative amendments took place to tax business models associated with the digitalized economy. Another observation made from a South African perspective is that where business associated with data is commercialized, the head offices are mostly situated

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in tax havens or jurisdictions with more attractive tax regimes. Except for the indirect tax changes discussed in Part Five of this branch report, the current income tax legislation does not enable the SARS to efficiently and effectively enforce and collect taxes within the digitalized economy.

Summary and conclusions

Big data is a polyvalent concept. Data influence entrepreneurial decisions and are the object of transactions, that may be taxed, respecting data protection and digital rights. Debates on the distinction between open data or secrets, or the configuration as work vs. capital have tax consequences. There are no specific laws relating to data transactions in Spain. Principles on responsible use of AI-related technologies should be considered (prudence, proportionality, transparency), moving from ethical to legal control (non-discrimination). Valuation techniques should be improved.

In Spain, the relevant factors for determining the tax character of a data transaction are the general ones. The Tax on Certain Digital Services (DST) has been introduced by Act 4/2020 of 15 October. It includes as a third taxable event, specifically, the transfer or sale of data. This has been presented by the government as a transitional tax, that will be in force only until reaching more advanced agreements in the EU or multilaterally. It is justified to face financial needs in the midst of the pandemic in line with unilateral reactions in neighboring countries. For the legitimacy of any fiscal policy that tries to subject to tax the income derived from new business models in a digital society, the Spanish Supreme Court has stressed the important administrative requirements in the EU framework.

Due to the fact that the tax on certain digital services has been configured as indirect, the typical treaty provisions in Spain cannot have a clear impact on the taxation of these data transactions. The Spanish Double Taxation Conventions currently in force do not mention data transactions explicitly. Spanish transfer pricing rules do not take data transactions particularly into account.

The transfer or sale of collected data on the users (that have been generated by their activities on the digital interfaces in the area of application of the tax) is subject to the DST. There are two thresholds: the annual turnover exceeding 750 million euros and the income generated in Spain exceeding 3 million euros. The electronic commerce is explicitly not subject to tax, among other. The tax base is the amount of income obtained in Spain and the tax rate is 3%. The tax is borne with each transaction. There are some procedural obligations, such as the geo-localization of the devices. Some difficulties are expected in

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its application and control by the tax administration. Secondary regulation develops the declarations to file, the sanctions, etc.

There is no mention to the nature of the data transferred. The new tax does not impose a levy on the real economic benefit arising from the exploitation of refined data, and it does not solve the problem of ascertaining how much data are worth.

There are general tax benefits for research, development and innovation activities in the Corporate Income Tax Act, that can be also applied to big data. The Spanish Independent Authority for Fiscal Responsibility has conducted a review of their effectiveness and it has proposed changes to increase their efficacy and transparency.

To date, in Spain, user's enjoyment of free digital services in cases where the provider is able to collect user data, does not constitute a barter transaction. Theoretically some possibilities could be further explored.

In principle, the present Spanish DST would be compatible with VAT, because its tax base is specific and it does not tax general consumption. The taxation of data transactions for VAT purposes may somehow raise the definitional challenge of goods vs. services, as happened when characterizing cloud computing transactions. A similar solution could be envisaged in EU law.

Spain basically follows the International Financial Reporting Standards. The tax principles governing the recognition of revenues and expenses generally coincide with accounting principles, although special tax rules do exist.

In the Tax Control plans there are recent uses of big data by different levels of government to carry on audits and fight fraud. The tax authorities tend to increase duties and exploit opportunities to provide and get information (e.g. chatbots). The Spanish General Tax Act has been reformed to allow digital procedures, which obviously generate new data. In this context, some risks of discrimination through permanent access to big data and profiling may exist. The use of big data is common in several areas of tax administration. Data governance has become strategic. The architecture to integrate and exploit big data is being developed progressively in the Spanish Tax Agency. One may wonder if a continuous flux of information between taxpayers and the tax administration can really reduce the indirect tax pressure but increase the direct one.

Introduction: Legal background

Nowadays data can be found almost everywhere (see Bibliography: LEVENDOWSKY, 2018). They allow doing business by taking better entrepreneurial decisions (considering the space dimension and a real time analysis)³ and may be the object of commercial transactions themselves. Nobody can deny the importance of data in the digital industry and the efficiencies derived from their cumulation and use. Digital is equivalent to data driven. Often the greatest value is not the profit or the income generated by an economic activity itself, but the number of users that can be reached (e.g. Facebook with approximately 2,5 thousand million accounts) and the knowledge and use of personal data from users (see

³ It is possible to take a wrong decision with good data, but it is impossible to take a good decision with wrong data.

Bibliography: CARBAJO VASCO, 2020, 475). Data may end up becoming money and be consequently taxed.

Big data is a polyvalent concept. It implies the “digital capture of massive volumes of information, that can be treated with algorithms” (see Bibliography: DIEZ ESTELLA, 2020, 17-18; FORREST, 2019, 10). It may refer to the databases, the information about agents, their characterization, and processes that they develop, the analytical tools to facilitate their use and the achievement of results. The 4 Vs model explains the scenario of big data: volume, variety (data generated by automated systems, not only humans in different formats), velocity/volatility (impacting on depreciation), verifiability. Additionally, other Vs are considered: value and visibility (see Bibliography: AECA, 2017, 8).

There is a clear need for an evolution in the accounting field in order to adequately register and value these digital assets (the data that a company owns and the knowledge it has extracted from them) as a previous step to value any company itself (see Bibliography: AECA, 2017, 22) and its transactions. The same is true also in taxation in order to ensure fairness within a given tax system. The Law 11/2021,⁴ in its article 13, paragraph 21, amending the Spanish General Tax Act (Ley General Tributaria, LGT), a new article 201 bis has been added, which regulates the system of infringements for manufacturing, producing, marketing or simply having computer systems that, among other things, allow accounting other than the official one to be kept automatically. It provides for a ban on the so-called dual-use software, which consists of computer programs that allow accounting and management data to be manipulated. In addition, an obligation to inform on the possession and transaction with virtual currencies (e.g. acquisition, transfer, collection and payment), both located in Spain and abroad is established for Spanish taxpayers.

If data are an “active” for a company (or the tax administration), they should be managed without harming the fundamental rights and freedoms, with accountability (see Bibliography: AECA, 2017, 43). Regarding the possibilities to administer the data owned by a company, a couple of recent movements in the European Union can be raised: the reinforcement of secrets and the limited exceptions to copyright law.

On the one hand, the Spanish Act 1/2019 of 20 February, on Business Secrets implements the European Union Directive 2016/943, of 8 June 2016, on the protection of undisclosed technical knowledge and business information. This Act quite broadly defines the notion of trade secret, comprising any information which is secret, with entrepreneurial value, whose owner has applied reasonable measures to keep it secret. Its actual or potential commercial value is precisely due to its secret nature. It arbitrates a protection as much or even more rigorous than the one for the patents, without limit of time and without giving any information on such secrets (neither to share with the scientific community, nor with the society, what is discovered or known). A “reinforced legal security”, a “robust system of actions” and an “adequate catalog of precautionary measures” are established. It surprisingly attributes liability even to “third party purchasers in good faith”, who are graciously allowed, in order to avoid problems, to “pay a reasonably satisfactory pecuniary compensation” (see Bibliography: ROGEL VIDE, 2019, 25-26).

⁴ Law 11/2021, of 9 July on measures to prevent and combat tax fraud, transposing Council Directive (EU) 2016/1164 of 12 July 2016, laying down rules against tax avoidance practices that directly affect the functioning of the internal market, amending various tax rules and on the regulation of gambling. Published in the Official State Gazette on 10 July 2021.

On the other hand, the text- and data-mining activity allows the extraction and use of significant amounts of digitally available information. This is potentially useful to AI creative platforms that are fed with vast quantities of data. In the EU copyright law, there is a text and data mining⁵ limited exception to the reproduction right introduced by the 2019 EU Directive on Copyright in the Digital Single Market. This activity can be carried out freely only by research organizations and cultural heritage institutions for the purposes of scientific research. This provision may push AI companies to opt for public-private partnerships with public research centers; but any commercial exploitation of the final work created by the machine after being fed with the copyright material is likely to be limited, if not excluded entirely. Another provision of the Directive appears to in principle allow text- and data-mining activities by business and for-profit entities, and for any purpose. Yet, such an exception does not apply if copyright owners have reserved the right to mine (see Bibliography: BONADIO & MCDONAGH, 2020, 10-11). The European parliament has continued focusing the attention on intellectual property rights for the development of artificial intelligence technologies in its Resolution of 21 October 2020.⁶

In Spain, the Title X of the Organic Act on Data Protection and Safeguard of Digital Rights, in force since 2018, already established some rights in the digital environment. There has been a recent Digital Rights Charter to develop them and add new ones.⁷ There is also a concern on the need of a national strategy to increase the availability of administrative data and adapt the administrative structure (see Bibliography: AIREF, 2020b).

However, Spain has not explicitly addressed big data transactions with specific legislation yet. A divergence lies at the core of the current debate: should data be conceived as capital or work? It is important to determine whether data wandering through the cyberspace are directly accessible by some companies for free (without prior payment); or whether, on the contrary, they are property of whom actively or passively—or even unconsciously, produce them (i.e. by being users of certain applications or visitors of different websites).

Considering data in the light of human rights and private property may imply their configuration as a result of human work. However, the current situation prioritizes characterizing data as capital, as some critical voices have been expressed (see Bibliography: ARRIETA *et al*, 2017). Labour law basically would require that the producer of data (user of a given application) gets a remuneration for incorporating them to the network. These raw materials may be used to feed AI. Without users' data, many companies deriving significant economic profits, directly or indirectly, would not be able to do so. Users' data are a fundamental component of global business models and the amount of profit derived varies greatly depending on the position of each party. When a company exploits data, the amount of revenue obtained is often larger than the value received by the individual producing them.

At this point, both the economic value of financial data and non-financial data provided should be, somehow, taken into account. The users could receive in consideration a flat-fare

⁵ See Directive 2019/790 art.2(2), which defines text and data mining as “any automated analytical technique aimed at analyzing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations”.

⁶ Available at: https://www.europarl.europa.eu/doceo/document/TA-9-2020-0277_EN.pdf

⁷ Available in Spanish at: https://www.lamoncloa.gob.es/presidente/actividades/Documents/2021/140721-Carta_Derechos_Digitales_RedEs.pdf

or adaptable return, depending on the circumstances of each transaction (see Bibliography: WARNER & HAWLEY, 2019).⁸

If the users generating the data are not considered workers, when dumping the data, they can be seen as voluntary collaborators of the company's own activity. They could then be considered co-producers of the potential revenues in the business derived from the collection and exploitation of these data (see Bibliography: COLLIN & COLIN, 2013; ROSEMBUJ, 2018). In the tax field, even in cases where the supply of goods or provision of services is for free, it is usual to find the assumption or fiction of a remuneration for tax purposes. This idea could be further developed.

Astonishingly, with a different perspective, to combat data pollution, on the basis of the negative externalities caused by the amount of superfluous data on the network, a tax on users that provide personal data has been proposed (see Bibliography: BEN-SHAHAR, 2018).

It is timely to think about the relations between companies, tax administrations and users or taxpayers. If data were conceived as private property, the producers of data or workers would be simultaneously recipients of income, when the companies paid amounts to them. The value of these data would be integrated in their income from work within the personal income tax. An agreement could be reached between the tax authorities and the companies to fix the fiscal value of the data captured from the users in order to be subsequently exploited. Clarity on how much they are worth would be useful for all parties involved.

Irrespective of the existent relativity in the attribution of value, it increases when data are structured and are easily tractable. However, the main problem lies in which structure is relevant for the aims pursued. Apart from the quality of individual data, AI demands a quantitative approach, by requiring enough amount of data to make them useful and thus valuable. This external condition often depends on a third party that can process them and on the existence of a market.

Finally, open data is a relevant part of big data. In the European Union, there have been many efforts for the re-usability of the public sector data (see Bibliography: AECA, 2017, 25). In Spain, the catalogue of tax data held by the Spanish tax agency in the framework of the Open Government initiative (collection, statistics per tax, etc.) is available online.⁹ There are "infomediary" companies that supply goods and services to third parties derived from this public sector information (e.g. Informa), and in a similar vein, the Chambers of Commerce have created a company (Camerdata) to commercialize business databases.

Part One: Basic principles: Character, source and nexus

The different types of transactions ("raw data transactions", "aggregated data transactions", and "big data analytics") are considered in the following pages to the extent possible. In our

⁸ Spain could take into account the DASHBOARD bill in the US ('Designing accounting safeguards to help broaden oversight and regulations on data act) to create an obligation for companies to identify what data they collect from users, how much it is worth, and its value for other types of transactions.

⁹ https://www.agenciatributaria.es/AEAT.internet/Inicio/La_Agencia_Tributaria/Gobierno_abierto/Reutilizacion_de_la_informacion_Iniciativa_Datos_abiertos_/Datos_disponibles_catologo_de_datos_abiertos_de_la_Agencia_Tributaria.shtml.

view, they may entail some doubts regarding perennial data, or the possibility of changing their value (losing it vs. infinite/renewable use) raising potential double taxation issues.

1.1. General overview

There are no specific laws relating to data transactions in Spain. Commercial law would normally apply, and also constitutional or administrative law could have an impact depending on the specific issue addressed. In order to ensure consistency and effectiveness, some legislative amendments would be desirable.

1.2. Character

The legal and tax principles applicable to data transactions are not yet explicitly defined in Spanish legislation and are rarely studied in academic publications. Some principles could be derived from the broadest ones recently developed to deal with AI. Being big data (and the subsequent transactions involving it), a key principle to consider for an AI-related technology would be responsibility. When addressing the existence and assessment of a transaction, transparency and prudence should also play an important role (see Bibliography: DÍEZ ESTELLA, 2020, 10), together with proportionality (also from a procedural perspective and when considering its market value). In addition, facilitating voluntary tax compliance should be a guiding principle.

In the EU, there is a call for trustworthy AI to spread the use of this strategic technology in the twenty-first century. At the moment, the importance of an ethical control regarding the good use of these tools is often highlighted. Some sort of legal control of the use of data made by tax administrations is now being improved. The recent experience of the Dutch administration has found clear limits in the Judgment of 5 February 2020 by The Hague District Court¹⁰ (see Bibliography: GRAU RUIZ, 2020b, 7-15). At this stage, it is really important to assess the safety of pilot projects; to ensure non-discrimination avoiding bias (finding balance with a subset sufficiently representative), to permit self-explainability and verifiability of algorithms and their data inputs. Thus, a good data governance regime is needed, putting big data and AI at the service of taxpayers (respecting pre-defined limits and safeguards).

The tax treatment of data transactions should be stable, predictable, and allow scrutiny. Any efforts to promote comparability in calculating the value of data across commercial data operators that utilize users' data in a similar manner should be welcome, while taking into account the potential need to develop distinct methods for calculating the value of data for different uses, sectors, and business models (see Bibliography: US SENATE, 2019).

The value of data is usually determined only after the data are collected and processed. Where consumers "pay" for services with personal data, the benefit they gain is the utility

¹⁰ ECLI:NL:RBDHA:2020:1878 Available at: <https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2020:1878> The Court declares contrary to art. 8.2 of the European Convention for the Protection of Human Rights and Fundamental Freedoms the use of an algorithmic system (System Risk Indication, SyRI). "[W]hen SyRI is applied, use is made of 'big data' [...] However, there is no clear-cut definition of that term. The court deems it irrelevant to its further assessment whether or not the processing of data in SyRI should be qualified as a form of 'big data'." (6.52).

of the services they receive, and the price is the value of the data they supply. Several platforms (Personal Data Exchange, PDE) now enable consumers to sell or invest personal data. Yet, PDEs have not proved especially popular. This might be because they tend to pay consumers only relatively small sums of money, which is partly attributable to the fact that payments are made prior to the data being aggregated and monetized. In data-for-services transactions, “Return on Data” should be taken into account.¹¹

In our view, to better protect the taxpayers’ rights, it would be useful to count on a system to challenge the value of the data set by the tax administration in a given transaction, in case of disagreement (e.g. similar to the procedure allowing contradictory experts’ valuation).

At the moment, in Spain the relevant factors for determining the tax character of a data transaction are the general ones when assessing the provision of a service, license of intangible property, lease of property, a sale or exchange of property, or some other category of transaction.

In principle, income derived from data transactions will usually be attributed to an economic activity. Its value will probably depend on the degree of accuracy of the data, but this does not entail different categories of income. The profit will be taxable income under the personal income tax or the corporate income tax acts.

When a service is provided, perfectly identified by the parties, where data is transmitted or an essential part of it, this may affect Corporate Income Tax or require VAT (particularly relevant in cross-border transactions according to their types).

When a company allows access to its data to another company in exchange for a fee, without the buyer acquiring ownership of such data, the business profit would be taxed as business income with Corporate Income Tax. In addition, it could carry VAT as well.

The Spanish Parliament has recently passed legislation to tax only certain transfers of data. The Bill of the Tax on Certain Digital Services specifically included the transfer or sale of data as a third taxable event.

1.3. Source

Spanish tax laws do not determine the source of income derived from data transactions through special rules. In a context of fiscal federalism in our jurisdiction, the source determination usually plays a role internally in establishing nexus to tax all economic transactions. In particular, this often happens with some taxes and the regional regimes.

The income derived from certain data transfers will be taxed with the Digital Service Tax, DST -finally approved after various political attempts. The income received in consideration for a ‘pure’ transfer of data will be indirectly taxed through the 3% rate. All the business profit derived from other types of data transactions would be, in general, included in the taxable amount of the corporate income tax.

¹¹ Datacoup allows consumers to sell personal data for cash. Users decide which data points to make available to the platform, which then determines the amount of cash they receive. Datacoup’s website showcases a user earning just \$ 1.10 a week from the platform. Return on Data obviates the need for such calculations as it instead evaluates a ratio between two variables, namely the benefits consumers receive and the data price they pay (KOLT, 2019).

1.4. Nexus

At the moment, the relevant elements of Spanish tax laws that may determine tax nexus for data transactions are the same as the ones applicable in a general scheme. A common regime applies to all business transactions, regardless of whether or not data are transmitted. However, according to the new Tax on Certain Digital Service, which comprises some transfer of data, the geolocation of the digital interface employed by the user must be within the territory of application of the tax to levy it.

The Spanish government explains that this is a transitional tax, that will be in force only until reaching more advanced agreements in the EU (e.g. the proposal for Directive 147/2018 of 21 March, on significant digital presence) or internationally. Technically, there are administrative concerns regarding the feasibility of controlling the proper location of the devices and the possibilities of fraudulent manipulation of Internet Protocol (IP) addresses.

Other proposed developments within the EU framework in tax matters, with a view to improve the administration of the relevant taxes, envisage the nomination of substitutes. Thus, Directive (UE) 2021/514 on administrative cooperation (DAC 7) extends EU tax transparency rules to digital platforms.¹² This will ensure that member states automatically exchange information on the revenues generated by sellers [this could include data] on online platforms respecting specific provisions and safeguards on data protection. An EU mandatory common reporting standard would ensure that digital platform operators do not face fragmented national solutions when it comes to their tax related reporting obligations, and that all EU tax administrations have access to the same type of data (see Bibliography: EUROPEAN COMMISSION, 2019).

For the legitimacy of any fiscal policy that tries to subject to tax the income derived from new business models in a digital society, the Spanish Supreme Court has stressed the important administrative requirements. The EU legal order entails economic freedoms that cannot be restricted or limited and prevail over the tax provisions. Our Supreme Court has taken into consideration the Judgment *Airbnb Ireland* of the EU Court of Justice, of 19 December 2019 (C-390/18), where the obligation for Airbnb to register and comply the same requirements imposed on real estate agents was annulled (see Bibliography: GARCÍA NOVOA, 2020), because this intermediation activity is a service of the information society. These digital services are quite similar to the taxable event comprised in the proposal for an EU wide digital tax (online intermediation).

Part Two: Application of treaty principles

2.1. General overview

Due to the fact that the tax on certain digital services has been configured as indirect, the typical treaty provisions in Spain cannot have a clear impact on the taxation of these data transactions. The Spanish Double Taxation Conventions currently in force do not mention data transactions explicitly.

¹² Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021L0514&from=ES>

Perhaps, the income derived from other data transactions not covered by the new specific tax could theoretically be related to the permanent establishment concept. It would be possible to consider data transactions as auxiliary or supplementary activities, or even their connection to a dependent agent could be assessed. The fixed base can be seen as a more flexible concept where some of these transactions could fit as well.

In addition, the physical infrastructure to capture, access and enjoy data (e.g. data-server and cables) might be useful to indirectly establish a nexus, without the need of determining it for each single transaction. It could be pre-established, having in mind the whole network.

In principle, as data are not autonomous, they might be ancillary to software, and therefore, follow its tax treatment. Another possibility would be to consider the know-how on profiling within the concept of independent agent. It could be characterized as technical consultancy if specialized knowledge were required. The metadata on processing could shed light at this point (not only the contents may be significant but also the form in the treatment).

Regarding data that can be used by researchers, in the framework of open access movement, their regime could be updated, particularly for the data treatment by public entities and/or in the public interests.

2.2. Detailed comments

Different types of data transactions could be treated differently under a typical tax treaty analysis,¹³ depending on the exact circumstances of each case. For instance, “under the Spain-US Tax Treaty, consideration received for the use, or the right to use, computer software is treated either as royalties or as business profits, depending on the facts and circumstances of the transaction giving rise to the payment. The primary factor in determining whether consideration received for the use, or the right to use, computer software is treated as royalties or as business profits is the nature of the rights transferred... Royalties are payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic, scientific or other work ..., any patent, trademark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience”.

¹³ Some bilateral tax treaties contain an expanded royalty definition which also includes payments for the provision of technical services. However, making data and software available for a fee does not constitute a service of a technical nature. On this basis, it could be argued that even with an expanded definition of royalties, the payments from the users to the platform enterprise (whether in cash or in personal data) shall typically be classified as business income and shall therefore not be taxable in the user jurisdiction, assuming that no PE of the platform enterprise is established (see Bibliography: KJÆRSGAARD & SCHMIDT, 2018).

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

In principle, “the functional analysis should take into account various activities, including the transfer of data, their purchasing and selling, further processing or transformation, all of which have a significant value for highly digitalized businesses”.¹⁴

Spanish transfer pricing rules do not account, particularly, for data transactions in a cross-border scenario. They do not account for the supply of goods or services where the value or efficiency has been enhanced by the enterprise’s use of big data either.

Part Four: Special regimes

4.1. General overview

At the moment, there is only one specific regime for certain data transactions in the Spanish tax legal order. Its main features are explained in the next section.

4.2. DST

Spain has been in the process of enacting a digital services tax for several years. The policy foundations for this tax have been evolving in the different attempts to introduce it, before and after the general elections, as the socioeconomic situation has varied quite considerably in the meantime.

At the very beginning, the main purpose of the DST was to finance the increase in social benefits linked to retirement pensions, as demanded by the growth of an ageing population. After a political change in the Executive, the bill was reactivated in the interest of achieving more funds to increase public spending, running in parallel with a proposed Financial Transactions Tax. Recently, its legitimization has been additionally rooted in the EU ambition to restore taxing rights and achieve fair company taxation in the EU market with approximately 400 million users.

The final Act is identical to the Bill. The contributions during the parliamentary debate have been minor, as many of them have not been considered in the final legislation. The lack of technical knowledge regarding its contents with an inextricable language, may have made the presentation of alternative proposals difficult. With respect to the third taxable event (on transfer of data) there were no amendments to discuss at all at the Congress or Senate.

¹⁴ “Petruzzi and Buriak put forward ways for using the existing transfer pricing rules to cope with the tax challenges of the digitalization of the economy, stressing the role of value creation analysis in such context, which sees data as a very valuable asset especially for the highly digitalized business... Since data can be generated in one country and processed in another, the writers suggest that value generated can be split, ... and a cost-plus markup derived from margin applied on the market by independent companies rendering similar services” (see Bibliography: BRAUNER & PISTONE, 2018).

The scope of the Spanish Digital service tax (see Bibliography: DÍAZ-SUNICO, 2019), approved by the Act 4/2020 of 15 October, is relatively limited. It entered into force on 16 January 2021.

General description

The state taxes the provision of certain digital services when there is intervention by users located in the territory of the tax. The IP of the user serves as a means of location, although other methods of geolocation are envisaged as well. This tax applies, without prejudice to the regional tax regimes and the provisions included in international treaties.

A lively discussion has been held with respect to its real nature, self-declared in the act as an indirect tax, mainly in order to avoid any possible interference with the application of double taxation conventions. The academia has strongly criticized this oxymoron and representatives from the tax administration have defended that indirect taxation characteristics outweigh the typical ones in direct taxes. They affirm that Spain finally adopted this unilateral measure due to the difficulties to internationally reach political and technical consensus. They justify this exercise of national sovereignty as urgent in the pandemic context. Apparently, the Spanish government has not renounced to achieve a broader definitive solution in the future in the framework of the EU or the OECD, but it believes that some steps forward may be taken with a temporary increase of unilateral pressure (see Bibliography: GARCÍA-HERRERA BLANCO & GARDE, 2020). After a really long period of discussions, when reaching an international political agreement, an extra period would be necessary for implementation, so, in the meantime, a provisional national solution was put in place. Similar taxes have already been created in Austria, France, Hungary, Italy, and the UK; and are in process in Belgium and Czech Republic. The government insists on the inception of this tax as a relatively simple transitional measure (as it was initially envisaged by the EU and being compliant with the EU guidelines) until the moment in which a multilateral solution can finally be adopted, although some voices doubt it (see Bibliography: GRAU RUIZ, 2020a). Currently, this is a way to react to the economic crisis and financial needs, in a period of clear transition to digitalized businesses models, where many digital companies have obtained even more economic profits during the coronavirus restrictions. The governments of Spain, France, Italy, Austria and the United Kingdom have recently reached an agreement with the United States on their respective digital taxes that will prevent the entry into force of tariffs on imports of products from these European countries that had been approved by Washington in June. The agreement provides for Spain and the other countries to maintain their respective national digital taxes until the first pillar of the agreement on corporate taxation reached by the OECD at the request of the G20 enters into force. This pillar will enter into force by 31 December 2023, at the latest.¹⁵

This self-denominated “indirect” tax is not levied on every digital service. The taxable event is established in article 5, where the rendering of digital services made by the taxpayers (article 8) is subject to tax. Although the presentation in the text seems

¹⁵ JOINT STATEMENT FROM AUSTRIA, FRANCE, ITALY, SPAIN, THE UNITED KINGDOM, AND THE UNITED STATES REGARDING A COMPROMISE ON A TRANSITIONAL APPROACH TO EXISTING UNILATERAL MEASURES DURING THE INTERIM PERIOD BEFORE PILLAR 1 IS IN EFFECT
https://www.lamoncloa.gob.es/serviciosdeprensa/notasprensa/hacienda/Documents/2021/211021-acuerdo_impuestos_digitaes.pdf

to refer to a single taxable event, there are three different ones. The concept of “digital service” has been understood in a very wide manner. In our view, online marketing is completely different to transfer of collected data. This is clearly observed when making the connection of article 5 with articles 8 and 10 (tax base). The tax covers three types of digital services, where the contribution of the user has a special value, greater than the one provided by the client of an off-line service. Accordingly, the following services are subject to taxation: online marketing directed at the users of a digital interface; online intermediation that allows connections between users through multi-faceted interfaces –interactions that sometimes lead to subjacent deliveries as well; and transfer-including sale, of collected data about the users that have been generated by their activities on the digital interfaces.

The user has to be located in Spain, i.e. where the data that are being transferred have been generated in the area of application of this tax. The taxpayers are legal persons or entities without legal personality (in accordance with article 35 of the General Tax Act), if two thresholds are met: 1) the annual turnover in the business exceeds 750 million euros, like in country-by-country reporting (to exclude SMEs and start-ups), and 2) the income generated in Spain exceeds 3 million euros (revealing a significant digital footprint).

The tax base is the amount of income (excluding VAT or other additional taxes) obtained in Spain. The problem is to determine it as a proportion of the total or global income derived from digital services.

The tax rate is fixed at 3%. There are formal obligations and a specific regime of infractions. The latter has changed since the first version of the text. The blueprint (“*Anteproyecto*”) characterized as infringement the hiding (caused by the user and not the company). Now it is linked to the one really having liability.

In the approved legislation, there is a self-claim to be indirect, as previously mentioned. Irrespective of the *nomen iuris*, some mixed features from direct and indirect taxation may be found. Its indirect nature has been explained because it does not consider the characteristics of the provider of the service when establishing the taxable event, it is instantaneous (with periodical assessment), it is levied upon the gross income with a proportional rate, and because of the rendering of certain digital services. Like in direct taxes, there is no recharge and there are thresholds. Its purpose is to solve a problem of lack of taxation of income of companies delivering these digital services. The current legislative configuration has tried to escape from the scope of DTC (article 2 of the OECD MC). In the long run, a solution in the framework of corporate taxation should be achieved. At the end of the day, the final configuration is hybrid, mostly indirect and that allows its compatibility with DTC.

Some difficulties are expected in its application and control by the tax administration (e.g. to find out the exact proportion of the tax base, and the risk that the IP can be manipulated). Another tax official when asked about the administration of this tax, referred to the amounts of revenue collected in neighboring countries, e.g. France has collected 350 million (see Bibliography: BARRENO ASENSIO, 2020). To this point, it is important to note that comparisons are not always easy because the thresholds to be subject to tax may be different in each state. Initially, the future collection was estimated in 1.200 million, but these projections were lowered, due to its limited scope. The first revenues from the Tax on Certain Digital Services amounted to 92 million euro, corresponding to the first and

second quarters of the year, and from January until November 2021 had generated 165.866 thousand euro (71.319 in the last month).¹⁶

Detailed analysis of data transfers

Focusing now on the services subject to tax explicitly dealing with data, the taxable event is the transfer of data collected, once they have been generated by the users' activities on digital interfaces. There is a potential problem with the wording, as it is intended to cover only the transmission of user data, i.e. raw data. These data are often of scarce value if compared to the ones available after refining processes. Consequently, the most lucrative options (e.g. the analysis and exploitation, or obtaining any conclusions drawn from those data) are excluded. The new tax does not impose a levy on the real economic benefit arising from the exploitation of refined data. In addition, it does not solve the problem of taxing the transaction in question or ascertaining how much the data are worth. As is well-known, the value of data depends not only on the amount and quality, but also on the connections with other data. Many data do not exist in a defined informational domain, and they are generated after analytical or statistical treatment instead (data with added value) (see Bibliography: AECA, 2017, 25).

There is no mention of the nature of the data transferred. There is no distinction between raw or refined data in this act (although their value may change considerably). The purpose of the use of those data is not taken into account either.

When data are already held by a company acquiring software developed by another company, the new taxable event will not apply since no sale of data collected via digital interfaces takes place. This type of service is left untaxed by the DST (probably because it would be already subject to other taxes).

Neither the economic benefit derived from the collection of data, nor the vast majority of services required for the exploitation of data are taxed by the DST, because its taxable event is limited to the transfer or sale of data. The economic benefit derived from the collection or capture of data is not properly taxed. It seems that it is not clear enough what creates a bigger economic profit, and which is the exploitation of data (see Bibliography: SÁNCHEZ-ARCHIDONA HIDALGO, 2020b). The tax is born with each transaction. There are some procedural obligations, such as the localization of the devices.

The situation does not suggest future extensions of the tax to cover other transactions, due to fear to lack competitiveness. However, its declared provisional duration is doubtful. Once introduced in the tax system, it will be difficult to remove it, as the need for revenue is critical in the recovery from the COVID-19 crisis that has dramatically hit the Spanish economy.

There is little practical experience in administering this tax. Interestingly the Ministry of Finance through the Institute of Fiscal Studies is already offering specialized courses to

¹⁶ AEAT, Informe mensual de recaudación tributaria, agosto 2021, p. 1-2. https://sede.agenciatributaria.gob.es/static_files/AEAT/Estudios/Estadisticas/Informes_Estadisticos/Informes_mensuales_recaudacion_tributaria/2021/IMR_21_08_es_es.pdf

AEAT, Informe mensual de recaudación tributaria, noviembre 2021, p. 1-3 https://sede.agenciatributaria.gob.es/static_files/AEAT/Estudios/Estadisticas/Informes_Estadisticos/Informes_mensuales_recaudacion_tributaria/2021/IMR_21_11_es_es.pdf

the tax officials in the use of advanced technological tools (e.g. data mining with statistical techniques).

At a later stage, the secondary regulation has developed the legislation by dealing with all sorts of administrative details, such as, the self-declarations to file (about starting, modifying or closing), the fiscal identification number, the register of entities, the books, the periodical information to provide, the designation of a representative or the need to keep supporting documents. Yet, there is an important issue to address: the assessment of sanctions connected to this tax. According to the bill, they can reach a maximum of 400.000 euros.

The Royal Decree 400/2021, of 8 June develops the rules for the location of user devices and the formal obligations of the Tax on Certain Digital Services, and amends the General Regulation of the actions and procedures of tax management and inspection and development of the common rules of the procedures for the application of taxes, approved by Royal Decree 1065/2007, of 27 July. However, it is quite limited. The third final provision of the Royal Decree establishes its entry into force on the day following its publication in the Official State Gazette (9 June).

Article 1 of the Royal Decree 400/2021 implements article 7 of Law 4/2020, relating to the place where the taxable event takes place. In general, the provision of digital services (online advertising, online intermediation, and data transmission) is understood to be carried out in the territory of application of the tax when the user is located therein. Specific rules are established based on the place where each of the devices has been used.

In principle, a given device of a user is presumed to be in the place determined according to its IP address, unless it can be concluded that it is different using other means of proof admissible in law, in particular through geolocation tools (pursuant to article 7, paragraph 4, of Law 4/2020). Article 1 of the Royal Decree specifies, in this regard, that the place of location of the device will be given by all the details of the address using the geolocation technology employed and lists some of the means of evidence that may be used: For such purposes, geolocation based on network identification (Wi-Fi, Ethernet or others), physical geolocation by satellite (with systems such as GPS-Global Positioning System, GLONASS, Galileo or Beidou) or by means of information provided by terrestrial wireless communications systems (such as GSM-Global System for Mobile Communications- or LPWAN), or by beacons (WiFi or Bluetooth), or any other combination of existing or future technologies may be used.

Articles 2 to 4 of the Royal Decree 400/2021 develop the formal obligations. For each settlement period, a register and a descriptive report of the transactions subject to tax must be kept, preserved and made available to the Tax Administration. This report must contain the processes, methods, algorithms and technologies used to analyze the subjection to tax, locate the rendering of the service,¹⁷ its attribution to the territory and calculate the income. The files, applications and programs used in such processes must also be identified.

¹⁷ The location for each service will be the one that corresponds to the location of the device on which:

1. The advertisement appears when the online advertising service is provided;
2. The underlying transaction is concluded when online intermediation services are provided with the facilitation of the delivery of goods or provision of services;
3. The account with which the digital interface is accessed in the other online intermediation services has been opened;
4. The transmitted data has been generated, in the case of data transmission services.

Article 5 of the Royal Decree 400/2021, pursuant to article 13.1.h) of Law 4/2020, details the scope of the obligation to establish the systems, mechanisms or agreements that allow determining the location of the users' devices in the territory of application of the tax. The taxpayers may agree with third parties the provision of the service of location of the users' devices in Spanish territory, in which case these third parties will be the ones who will have the location systems or mechanisms.

The location systems and mechanisms must capture the IP address of the devices. However, in those cases in which the location of the user is not carried out through the IP address of the device or in which such data is used together with other data, the systems or mechanisms shall capture all the data used for the location. The information obtained by the location systems and mechanisms shall be retained during the period of limitation of the tax.

The first final provision of the Royal Decree 400/2021 modifies the aforementioned General Regulation of actions and procedures, in that the formal obligation of article 13.1.a) of Law 4/2020 must be fulfilled through the declarations of registration, modification and cessation of the Census of Entrepreneurs, Professionals and Withholders -to which the taxpayer would be obliged in any case because he is an entrepreneur. The Census will expressly include, within the data to be communicated, the condition of the taxpayer regarding the Tax on Certain Digital Services, or the changes that take place in the tax situation related to this tax.

Article 14 of the Law empowers the Minister of Finance to approve the rule regulating the place, term and form by means of which the taxpayers must comply with the obligation of self-assessment of said tax. Royal Decree 400/2021, of 8 June, required a Ministerial Order with a new model. Order HAC/590/2021, of 9 June, approves form 490 of "Self-assessment of the Tax on Certain Digital Services" and determines the form and procedure for its filing (Official State Gazette of 11 June).

The Order establishes the deadline and the form for filing the quarterly self-assessments. The general deadline for payment is set by article 3 of the Order until the last day of the month following the end of each calendar quarter. Article 4 of the Order establishes as a mandatory form of filing the electronic way through the Internet, subject to the authorization and conditions of article 6 of Order HAP/2194/2013, of 22 November, which regulates the procedures and general conditions for the filing of certain self-assessments, informative declarations, census declarations, communications and refund requests, of a tax nature. Article 5 of the Order regulates the form of payment of the tax.

The Directorate General of Taxes, in its Resolution of 25 June 2021, regarding the Tax on Certain Digital Services (Official State Gazette of 28 June), has published an official interpretation, in accordance with article 12.3 of Law 58/2003, of 17 December 2003, General Tax Law.¹⁸ This complete official interpretation obliges the units and bodies dependent

¹⁸ Within the scope of the powers of the state, the power to issue interpretative or clarifying provisions of the laws and other regulations on tax matters corresponds to the Minister of Finance and Public Administrations and to the bodies of the Tax Administration referred to in art. 88.5 of this Law. The interpretative or clarifying provisions issued by the Minister shall be binding on all the bodies of the Tax Administration. The interpretative or clarifying provisions issued by the bodies of the Tax Administration referred to in art. 88.5 of this Law shall have binding effects for the bodies and entities of the Tax Administration responsible for the application of taxes. The interpretative or clarifying provisions provided for in this section shall be published in the corresponding official gazette.

on the Spanish Agency for Tax Administration (*Agencia Estatal de Administración Tributaria*, AEAT), in charge of the application of the tax.

The Resolution extensively develops the scope of the three types of taxable events. It deals with the general case of non-taxation in intra-group transactions, and the concepts of accrual and transaction subject to tax. The tax bases determined and provisionally quantified in each settlement period must be definitively declared in the tax period in which their exact amount is known. This regularization does not qualify as a complementary self-assessment, and the late filing surcharge is not applied; however, late payment interest is applicable.

“The regulations governing the DST, which is absolutely new and which, in addition, entails the incorporation into our legal system of technological concepts, alien to the traditions of tax law, needed a complete legal framework to provide it with adequate legal certainty”. “Royal Decree 400/2021 is far from being an authentic regulatory development of Law 5/2020, even a minimum one, since it focuses on formal (taxpayer records) or secondary (geolocation rules) aspects; therefore, it was necessary to have a regulation of lower rank than the Law but containing the features derived from constituting an official interpretation of the Law”.¹⁹ The AEAT has also published in its Portal frequently asked questions and answers.

Although the deadline for filing, as provided for in the ministerial order approving the self-assessment tax form,²⁰ is the month following the corresponding assessment period, for this first year of application, 2021, the filing and payment of the self-assessment for the first quarter of 2021 was made within the period foreseen for the filing and payment of the self-assessment corresponding to the second quarter of 2021 (from 1 July 1 to 31 July 2021). Therefore, the first self-assessments of the tax were not filed until 1 July 2021.²¹

4.3. Incentives

There are not any specific tax incentives for development or exploitation of big data. In general, the Spanish legislation provides tax benefits for research, development and

¹⁹ “Instead of resorting to the more than dubious method, from the point of view of the rank of the legal source, of publishing a list of questions and answers relating to the new tax on the portal of the State Tax Administration Agency, AEAT, as has been done with the Financial Transaction Tax, in the case of the DST the more rigorous method has been chosen” (see Bibliography: CARBAJO VASCO, 2021, 776). Note that the AEAT FAQs are released in addition to this Resolution. This is a controversial topic. On the problems related to the amount and contents of the increasingly demanded electronic forms, and the uncertainty provoked by changes on the FAQ webpages (see Bibliography: GRAU RUIZ, 2021, 7 – 16).

²⁰ Available at:
<https://www.hacienda.gob.es/Documentacion/Publico/NormativaDoctrina/Proyectos/proyecto-orden-420.pdf>

²¹ Available at:
https://www.agenciatributaria.es/AEAT.internet/Inicio/RSS/Todas_las_Novedades/Le_interesa_conocer/Aviso_sobre_los_plazos_de_presentacion_e_ingreso_de_los_nuevos_impuestos__Impuesto_sobre_Transacciones_Financieras_e_Impuesto_cios_Digitales_.shtml

innovation activities in the Corporate Income Tax Act (CITA). They can also be applied to big data.²²

Article 35 CITA contemplates a deduction for research and development in its first section and for technological innovation activities in its second section. The conditions are clearly detailed for each of them with the same structure: their concept is first explained, then the base for the deduction and the corresponding percentages are described.

The concept of research and development expressly states that the “creation, combination and configuration of advanced software, by means of new theorems and algorithms or operating systems, languages, interfaces and applications intended for the development of new or substantially improved products, processes or services will also be considered research and development activity” (article 35.1 a) *in fine*).

It is worth noting that the basis for the deduction is the amount of R&D expenditure and also includes investment in “intangible fixed assets”, once put into operation. That expenditure includes depreciation of directly related and actually used assets in the performance of the activity. If subsidies are received to promote that activity, the base for this deduction will be reduced (and they will be income in the tax period). The latter must be carried out within Spain, or within other member states of the EU or the European Economic Area. The amounts paid at the request of the taxpayer to carry out these activities will be considered R&D expenses.

The percentages to apply, range from the usual 25% of the expenses incurred in the tax period (these variations depend on their average in previous years). Regarding the entity's personnel expenses for qualified researchers, 17% can be added. In case of investment in tangible and intangible fixed assets (excluding building and land), 8% can be applied, if exclusively used for R&D activities. The items must remain in the taxpayer's assets until they fulfil their specific purpose (except for justified losses or shorter useful life).

Article 35.2 CITA deals with technological innovation. The base for this deduction comprises the amount of expenditure corresponding to “technological diagnostic activities aimed at identifying, defining and guiding advanced technological solutions, regardless of their results” (at letter b, 1st subsection); “acquisition of advanced technology in the form of patents, licenses, know-how and designs” (3rd subsection) -with a limit of one million euros and the caveat that the amounts paid to persons or entities related to the taxpayer will not give right to this deduction. The territorial consideration made previously is valid again and the adjustments due to subsidies are similar. The applicable percentage is 12% of the expenses incurred in the tax period. In our view, these provisions could embrace data transactions.

The AIREF, the Spanish Independent Authority for Fiscal Responsibility, has conducted a review of the effectiveness of these incentives. The publication of its report in the framework of the Spending Review was postponed due to the COVID-19 pandemic (see Bibliography:

²² “R&D tax credits available in Spain are: First, volume credit of up to 25% of R&D expenses incurred in that tax year can be obtained. Second, individuals and firms are eligible for incremental credit equal to 42% when their current year expenses exceed the average of such expenditures incurred in the preceding two tax years. Third, firms could apply for a 17% credit for wages paid to qualified researchers dedicated exclusively to R&D. Fourth, another 8% credit could be obtained on the amount invested in tangible and intangible fixed assets, excluding real estate, that are used exclusively for qualified R&D. Fifth, expenses incurred from research on technological innovation can receive a 12% tax credit (one million euro maximum). Sixth, tax incentives are complemented by patent box regime” (see Bibliography: MARTÍNEZ-ROS & KUNAPATARAWONG, 2019).

GRAU RUIZ, 2020c). It has been released in October 2020²³ and some changes have been proposed to increase their efficacy and transparency (e.g. adapting the requirements for the optional regime in the case of SMEs, facilitation of semi-automatic validation of the R&D activities within certain limits, listing the beneficiaries and reporting on the innovative results obtained, among other). The level of investment in R&D+i in Spain is below the average of the neighboring countries, and it decreased during the recession period (2008-2015).

4.4. Barter treatment

Barter transactions may arise, implying that goods or services are effectively traded, without monetary compensation, against other valuable inputs such as user engagement, user data, or user-generated content.

In contrast to cash payments, there seems to be no consensus between countries on whether data collection from users (e.g. user profile data, user locations in real time, credit card data) in return for access to the digital intermediary platform should be recognized as barter transactions between the users and the platform enterprise. Sometimes certain conditions have to be met in order for a transaction to be regarded as a barter transaction, and there are some reasons why taxing data exchange as a barter transaction is not attractive to jurisdictions (see Bibliography: KJÆRSGAARD & SCHMIDT, 2018; THIMMESCH, 2016).

To date, in Spain, user's enjoyment of free digital services in cases where the provider is able to collect user data does not constitute a barter transaction. Accordingly, it is far from being recognized for VAT purposes.

Hypothetically, two types of barter could be distinguished. On the one hand, the consideration paid to the user for the capture of his/her data and their subsequent use by the company. On the other hand, the consideration in case of a company paying its debts with data (that would be valued accordingly).

In the first case, the consideration could be a payment in kind in the user's personal income tax, rather than a mere barter. It is difficult to find a coincidence in the value of both elements in the transaction. Should the value be exactly the same, that would not impede to assess it as proposed here. The fiscal value authorized by the tax administration for that purpose, could then be reusable? Certainty would be desirable in the search for coherence in the value previously assessed, being suitable for both public and private transactions.

The second case referred to a possible payment by using the company data to settle debts with the tax administration could be quite practical in the future. In the past, some incentives granted by foreign countries to increase tax compliance comprise initiatives that could be assimilated to a barter (e.g. Portugal or Romania).²⁴

²³ This benefit has an accrued tax cost of 1.100 million euros. The actual cost applied yearly is 300 million. The difference is explained with the limits to the deduction or the lack of amount due to apply it. This implies important tax credits to be applied in the future (see Bibliography: AIREF, 2020a).

²⁴ In Portugal the "Fatura da sorte" (lucky invoice) was launched to "value and reward taxpayer fiscal citizenship" and engage them in cracking down on tax evaders by requesting invoices for goods and services they had paid for. The invoices should include the purchaser's tax identification number and were converted into lottery tickets. Initially, upmarket cars were offered as prizes, but later they were replaced by ordinary treasure bills. A VAT tax lottery was also implemented in Romania in 2015. The invoices should be issued by a fiscal electronic cash register. (see Bibliography: WILKS, SOUSA & CRUZ, 2019).

In theory, if we could think of a secondary data market in the style of the stock exchange market, we could divide the attention among the different subjects in a relationship: the producer of the data, the data broker as intermediary and the company acquiring the data about the user. In this system, the parallelism would lead to qualify the income obtained by the user as a return from movable capital. The intermediary acting under a corporate form should include the benefit as income as well. With a system like this, the consideration would be perfectly identified: the value of the data (or data packages) that a buyer is willing to pay, as it happens in the stock exchange. Even flat rates could be fixed. For data brokers a certification could be devised and they might be considered a cooperative partner of the tax authorities in the long run.

Part Five: Indirect tax

Currently, in Spain, data transactions are not treated differently from any other business transactions (except for the third taxable event in the DST). Therefore, a provision of services (differing from the one included in the DST), when a company engages in a data transaction will be subject to VAT, applying the general regime. The tax authorities defend that the present Spanish DST would be compatible with VAT, because its tax base is specific, and it does not tax general consumption (see Bibliography: GIL PECHARROMÁN, 2020, 32).

Since 1 January 2015, the EU requires that VAT be applied to suppliers of digital products and services to EU-based residents, including apps, games, software downloads, e-books, music, and video streaming. The VAT tax rate that applies is based on the location of the consumer (EUROPEAN COMMISSION, 2000). According to the EU VAT Directive, the “electronically supplied services” (ESS) include “services which are delivered over the internet or an electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention and is impossible to ensure in the absence of information technology.” The EU VAT Directive also includes specific examples of ESS, such as “the supply of digitized products generally, including software and changes to or upgrades of software”; “services providing or supporting a business or personal presence on an electronic network such as a website or a webpage,” etc.

The Spanish VAT Act deals with electronically supplied services I article 70. One. 4th. They are the ones rendered and received through equipment of data processing, fully transmitted through cable, radio or other electronic means, such as the supply of images, text, data and the making available of databases, supply of music, films or other cultural expressions, and the supply and hosting of websites, distance maintenance of programs and equipment, supply of programs and updates, among other (see Bibliography: CARBAJO VASCO, 2020, 511). The general tax rate of 21% is applied. However, the Royal Decree-Law 15/2020 of 21 April, has eliminated the difference in the tax rate between physical and electronic books and educational material. The former doctrine that obliged the latter to pay the general rate of 21% (because they could not be qualified as supply of goods due to their dematerialization) has partially changed and now the 4% is applied to them.

The taxation of data transactions for VAT purposes may raise somehow the definitional challenge of goods versus services, as happened when characterizing cloud computing transactions. The EU experience has proved that introducing explicitly both specific and general definitions for ESS has contributed to coping with this type of characterization challenge (see Bibliography: AZAMA & MAZUR, 2019). Maybe a similar approach, with

detailed examples of transactions to ensure certainty, could serve to deal with big data challenges and specialties as well.

Part Six: Tax accounting

The European international standard that regulates income tax is IAS 12. The European accounting standard for the allocation of revenue from customer contracts is IFRS15 Revenue from Customer Contracts, updated and harmonized with US GAAP.

In Spain these are called International Financial Reporting Standards (IFRS), in terms of the European IFRS (formerly IAS).

6.1. Recognition of transactions

As regards the recognition of expenses, the Fundamental Hypothesis of Accrual is followed, which in European standards is defined in IAS 1 Presentation of Financial Statements. The company performing the data transactions must apply the IAS2 Inventories, for data warehouse management. Spain's tax principles governing the recognition of revenues and expenses generally coincide with accounting principles, although special tax rules do exist.

6.2. Capitalization and amortization

The software required to collect and maintain data sets, and to develop and maintain databases or data analytics tools, will be recorded as intangible asset if it meets the definition contained in IAS 38 (point 8). An intangible asset is an identifiable non-monetary asset without physical substance. Its three critical attributes are: identifiability, control (power to obtain benefits from the asset), and future economic benefits (such as revenues or reduced future costs). This standard comprises the recognition and valuation criteria as well.

Point 51 of IAS 38 contains the criteria for capitalization of R&D expenses, when this application is generated internally in the company, as well as the method of amortization. It also includes the valuation criteria and amortization methods in the case of independent acquisition, swap or acquisition in a business combination.

The depreciation regime for intangible assets may be to a certain extent assimilated for accounting and tax purposes in the CIT, but it is not perfectly assimilable. Whether data are considered non exhaustible and reusable, like intangible, affects expenses and amortization (see Bibliography: PWC, 2020).

Part Seven: Other

There are recent uses of big data in the Tax Control plans by different levels of government to carry on audits in 2020 and fight fraud, not only the state level, but also for example in Catalonia or the Basque Country. Tax administrations are increasingly moving to

e-administration and using a range of technology tools, data sources and analytics to increase tax compliance. More than 40 administrations were using or planning to use artificial intelligence, and more than 35 administrations had data scientists (see Bibliography: OECD, 2020a & 2020b). More than nine out of ten business taxpayers filed their returns electronically, around 50% of the administrations were using digital assistants such as chatbots, more than 80% of the tax administrations used analytical tools and techniques to improve risk management, and nearly 75% of them used cutting-edge techniques to exploit data (see Bibliography: OECD, 2021a & 2021b).

In this transparency era, tax authorities tend to increase duties and exploit opportunities to provide/get information. In Spain, to deliver better services to taxpayers, ubiquitous, administrative service on the go, some chatbots are being implemented both by the Tax Administration and the Social Security Administration. This movement is aligned with a global trend towards e-government in the information and assistance function to ensure the continuity and productivity of operations (see Bibliography: COLLOSA, 2020). These tools may be faster and deliver more affordable service at lower costs, while they simultaneously open a new gate at the tax administration to gather valuable information ("Provide increasingly accurate responses and, consequently, increasing improvements in user satisfaction, as AI-based VCA virtual conversational assistants collect data and learn from interactions"). The Spanish AEAT developed a VCA using the Watson platform of cloud technology, which is able to answer the questions asked. The coronavirus pandemic will further enhance this tool, especially because of the hot issue of digital attention. The use of big data is growing in several areas of tax administration (like census and classification, machine learning, macro and micro risk analysis, revenue and insolvency predictions, complaints' management -e.g. Prometea or Lex Machina, and accountability) (see Bibliography: GONZÁLEZ DE FRUTOS, 2020).

A deep and quick transformation is caused by big data. What data are now available for tax administrations? Through the SII, tons of VAT invoices, produced on a daily basis, may be cross-checked with other parties in the transaction. The expected progression in the long is to expand this experience to other taxes, providing the whole informative picture. Some experiments have been postponed due to COVID-19, e.g. Batus in the "foral" Treasury in the Basque country (Vizcaya), that relies on electronic invoicing by cash registers with that emission system incorporated. Are data really making the economy observable? By eliminating cash to trace digital transactions, one may involuntarily be promoting the opacity in some digital transactions.

In light of the pandemic, the Spanish General Tax Act has been reformed to allow digital procedures through videoconferences. They obviously generate new data in the course of bi-directional communication (article 151 LGT) and the tax audit documentation in this new environment. All this will probably pay off in the future. In this regard, alerts have been rung due to the risks in more advanced tax management of discrimination through permanent access to big data and profiling (see Bibliography: GRAU RUIZ, 2020b). Steps are thus being taken towards "orchestration" (the automatized configuration, coordination and management of computer and software systems).

Due to the implementation of digitalized procedures with electronic files that can be more easily reviewed/audited, the training data set is constantly growing. Thus, in the Tax Administrations, it is key to maintain complete data with their appropriate descriptions, and to ensure quality and interoperability. Since the activities of the Tax Administrations are increasingly dependent on the processing of data and information, data governance has become strategic. The architecture to integrate and exploit big data is being developed

progressively in the Tax Agency intranet. Some data analytics tools are widely used in the Spanish Tax Agency, e.g. searches for aggregated analysis (Zújar with 500.000 daily consultations); consideration of extended relations in the constellation of physical and legal persons (Teseo), detailed analysis of a taxpayer and his/her environment (Genio), and the accounting and registers (Prometeo) (see Bibliography: AEAT, 2004).

In practice, the types of algorithms are relatively limited, and they can be applied to many different sectors, including taxation. Automated decisions leave no room for discretion and this will probably be considered in the future design of smart taxes. One may wonder if a continuous flux of information between taxpayers and the tax administration can really reduce the indirect tax pressure but increase the direct one.

Reference Case Studies

	Applicability of DST	Character	Source	Nexus
Data Brokers / Information Resellers	Yes	Ownership-sale	Place of business of the transferor	Residence
Data Feeds	No	If the data are collected but ownership is not transferred	Place where the supplier has its seat or main server	If only access is permitted, this would not be a nexus
Performance Data Analytics	No	Data are owned by the company that collects them	No PE can be found	A PE in the future?
Analytics Based Consultancies	No	Data are ceded for consultancy	Where the server of the company granting access is hosted (access to evolved software would not suffice for DST)	Country where the consumer or other company has temporary access to contents. This does not fit in the current PE concept either

Note.- The Spanish DST Act takes into consideration the ownership of data, what consequently has an influence in the other hypothesis. In each transaction it is key to distinguish what is principal or ancillary. This can entail qualification problems, affecting the tax rate or being subject to tax (like some electronically supplied services have shown). By adopting a stricter view, the transactions where the use of software has a priority to reach conclusions from a data set (analytics) or facilitate its management (feeds) could be excluded from the concept of data transactions as such.

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Summary and conclusions

Data is either proprietary data or public data. Public data is free for everybody to use and exploit. Proprietary data is protected, either by law or by contractual terms. Data as such is not subject to copy right. They only are if they are an original work. If a database is a result of financial or professional investment it is subject to the *sui generis* protection. This protection is similar to copyright and applies for a period of 15 years. When data is protected by contractual terms, it is a trade secret. For tax purposes, data is classified as an intangible. The accrual and valuation of assets follow, as a main rule, business accounting. The accounting principles that apply on each taxpayer governs the taxation. Thus, the accrual may vary depending on if a company applies for example national or international accounting standards.

The Swedish tax system is based on a broad tax basis with few special regimes. Thus, there is no such thing as DST or patent boxes, or similar special schemes that apply on data transactions. The general laws apply, such as the Income Tax Act and the VAT Act (VATA). Whereas the VATA has special regimes for electronically supplied services, such as transactions with data, the ITA does not contain any such rules. Sweden has concluded 106 tax treaties, 16 treaties on tax liability in certain situations and 28 tax information exchange agreements. Swedish tax treaties are based on the OECD Model Tax Convention. The relevant income types in the Swedish tax treaties for data transactions are business income and royalty income.

As in many other countries, a server may constitute a permanent establishment. The concept of permanent establishment in national law is adapted to the OECD Model Tax Convention. According to the Swedish Tax Agency, a permanent establishment may entail a foreign company having one or more servers placed in Sweden and the activities consisting of providing storage and data capacity at the server facility to customers. There is no permanent establishment if the foreign company leases the server in its entirety to another company which uses it in its business activities.

For transfer pricing purposes, there is no specific Swedish regime. According to the Swedish Supreme Administrative Court cases RÅ 1991 ref. 107 and HFD 2016 ref. 45, Sweden follows the transfer pricing guidelines also when applying its domestic transfer pricing rules. Setting the arm's length price on intangibles, the use of aggregated data is not easy, since all data sets are unique. The comparable uncontrolled price (CUP) is seldom available. Other methods are adjusted CUP/CUT, which entail a comparison with similar but not identical data transactions, return on research and development, residual profit method, and profit available method. In the event that the intangible is only partly developed at the time of the transfer, it may be a so-called "hard to value intangible". Where big data is integrated in an asset, for example, a self-driving car, the car as such qualifies as tangible goods for

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transfer pricing purposes. For the self-driving car as such, there may well be a CUP available.

The general consumption tax in Sweden is, as indicated above, VAT. There are no excise duties or other special consumption taxes that apply to data transactions. Since Sweden is a member of the EU, VAT is EU harmonized. There are special rules for electronically supplied services. According to the EU Implementing Regulation, which is directly applicable in all member states, electronically supplied services are “services which are delivered over the Internet or an electronic network and the nature of which renders their supply essentially automated, involving minimal human intervention, and impossible to ensure in the absence of information technology. In Annex II of the VAT Directive electronically supplied services are listed. The provision of raw data and aggregated data would normally be electronically supplied services. Data analysis, which is integrated in an asset, constitutes goods, from a VAT perspective.

As mentioned above, the main rule regarding the valuation of assets and debts, and accrual of income and expenditures is that taxation follows business accounting. This may be considered as special, but there is not anything anomalous in relation to big data transactions.

Introduction: Legal background

Data may be divided into proprietary data and public data. Proprietary data is protected, either by law, by contractual terms, or a combination thereof. Public data is free for everybody to use and exploit. Private data is subject to general rules. Examples of intellectual property rights that apply to data are copyright and trade secrets.²

Data as such has no specific protection in Sweden. However, a data or client register may be owned by a company, which means that databases and client registers may be sold or licensed. The right to dispose of data is subject to limitations under the GDPR and the Swedish Data Protection Act.³ Databases may be subject to copyright under the Swedish Copyright Act,⁴ provided that the database is an original work.

The data may be subject to *sui generis* protection. The *sui generis* right protects the results of the financial or professional investment carried out for the methodical and systematic classification of independent data. However, this right is not a right concerning the information stored in the database. *Sui generis* protection includes protection against the extraction and reutilization of the database for a period of 15 years.⁵

Data may also be protected on a contractual basis, and thereby become a trade secret. Information and experiences that employees acquire through their regular work are never trade secrets. The employer must make it clear to its employees that the information may not be disclosed. Thus, in order to create efficient trade secret protection, the business should apply non-disclosure and non-competition agreements.⁶

² Digitaliseringsrådet, Data som strategisk resurs, april 2019, Dnr: 19-3731, 9, https://digitaliseringsradet.se/media/1248/rapport-data-som-strategisk-resurs_dnr-19-3731.pdf (12 October 2020).

³ Lag (2018:218) med kompletterande bestämmelser till EU:s dataskyddsförordning.

⁴ Lag (1960:729) om upphovsrätt till litterära och konstnärliga verk.

⁵ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.

⁶ Lag (2018:558) om företagshemligheter.

There is a variety of commercial transactions in which businesses aggregate, process, and analyse large data sets in order to create and provide new forms of goods or services or to improve the utility of goods or services already existing in the market. When the data is used for software, patent rights, design protection⁷ and copyright may apply. Computer software or computer games cannot be patented, but technical inventions may be. Algorithms are normally protected by copyright.⁸

Part One: Basic principles: Character, source and nexus

1.1. General overview

In this report the issues are addressed with reference to the types of transactions noted above as “raw data transactions”, “aggregated data transactions”, and “big data analytics”. *Raw data* entails, for example, that an enterprise collects and aggregates personal information through the use of big data technologies and transfers that information for a fee to other organizations. This information may be gathered from cookies, loyalty cards, user-contributed data from social media websites, and similar sources. Transactions with *aggregated data* concern enterprises with access to volumes of data collected and organized through big data technologies such as automobile companies, large retailers, financial services providers, etc. that may aggregate and structure the data to use internally or to provide to other enterprises in exchange for consideration. This includes large data sets as well as formatted data, such as a weather report on a website. *Data analytics*, for instance, concerns autonomous vehicles which rely on an infrastructure based on big data analytics. The technologies may be developed by the manufacturer or be acquired from a third party. The scope of the report is thus broad.

Transactions with raw data differ in general from transactions with aggregated data since the aggregated data is more complex than raw data. It may be assumed that the systematization of the data includes more analysis in the case of aggregated data than in the case with raw data. Thus, aggregated data may require more research and development than the collection of and trade with raw data. There is no sharp line between the provision of aggregated data and data analytics. A weather forecasting service, including the gathering and processing of data with respect to the large number of variables involved in weather forecasting, that allows weather forecasters to predict the timing and severity of various weather events, such as hurricanes, floods, and snowstorms and that supplies the information to others for consideration, is an example of data analytics, rather than the provision of aggregated data. The difference lies in the fact that data analytics is the analysis of big data, whereas aggregated data is the provision of more or less analysed data, for example, through a website.

In Sweden, there are no specific tax laws on data transactions. Thus, the general laws apply, such as the Income Tax Act (ITA)⁹ and the VAT Act (VATA).¹⁰ Whereas the VATA has

⁷ Mönsterskyddslag (1979:485).

⁸ See <https://www.prv.se/sv/foretagare/testa-ditt-foretag/>, 13 October 2020.

⁹ Inkomstskattelag (1999:1229).

¹⁰ Mervärdesskattelag (1994:200).

special regimes for electronically supplied services, such as transactions with data, the ITA does not contain any such rules.

1.2. Character

In general, data is intangible for tax purposes. Companies involved in data analytics normally generate a great deal of research and development costs.

The ITA applies to both individual and corporate income tax. There are three sources of income: labour income, capital income and business income. As a general rule, all business income is taxable (with exemptions) and all expenditure needed to generate business income is deductible.¹¹ This applies to all kinds of transactions. Thus, the main rule is that all income from data transactions is taxable and all expenditure for taxable activities is deductible. The characterization of data transactions for income tax purposes is highly relevant for valuation and accrual.

The main rule regarding the valuation of assets and debts, and the accrual of income and expenditure is that taxation follows business accounting.¹² Thus, the principle for the classification of data transactions for the purposes of valuation and accrual is to rely on accounting standards.¹³ The accounting rules are decisive for valuation and accrual. Since raw data and aggregated data may be traded, is not tangible and is not a financial asset, it is *intangible* from an accounting law perspective.¹⁴ In cases where the data is acquired, but is not separable, it could be classified as *goodwill* from an accounting law perspective.

There are special tax rules that deviate from the accounting rules regarding intangibles that are acquired from a third party. Concessions, patents, licences, trademarks, tenancies, goodwill and similar rights that have been acquired from someone else may jointly be subject to a 30 % yearly depreciation, or an individual yearly depreciation for each asset of 20 %.¹⁵ If a company pays a licence fee for the use of a database of raw data, aggregated data or big data, that licence may be subject to such depreciation.

There are also special tax rules for *work in progress*.¹⁶ These rules do not only apply to work on tangible assets, but also to consultancy firms. These rules apply when companies develop business functions that involve collecting, aggregating, structuring, and analysing large information sets for their clients. When work in progress is charged to a current account, the costs and income are taxed when they are invoiced. However, when work in progress is carried out for a fixed consideration, an asset and a debt occur. The result of the work in progress is taxed when it is finally invoiced.

Research and development costs are deductible, either directly or through depreciation.¹⁷ Companies applying the accounting rules for larger companies (K3) may choose if they capitalize or currently deduct development expenses. Companies applying the accounting rules for smaller companies (K2) may not capitalize development expenses. The latter group

¹¹ Chs. 15 and 16 ITA.

¹² Ch. 14 s. 2 ITA.

¹³ See Supreme Administrative Court Case HFD 2011 ref. 1.

¹⁴ K3 Ch. 18, <https://www.bfn.se/wp-content/uploads/2020/06/v112-1-k3-kons.pdf>, accessed 20 October 2020. Ch. 18 ITA.

¹⁵ Ch. 17 s. 23–32 ITA.

¹⁶ Ch. 16 s. 6 ITA.

of companies may not capitalize intangibles acquired from someone else, if they are used for producing a new unique intangible.

For the purposes of allocation of income to Sweden, special rules apply to *royalties*.¹⁸ A feature of royalty income is that it varies depending on, for instance, the volumes sold, produced or used.¹⁹ A single payment in advance, which is fixed and which cannot be adjusted afterwards, cannot be a royalty.²⁰

As concerns VAT, goods are defined as tangible assets, including real estate, gas, heating, cooling and electricity.²¹ Everything else that may be traded constitutes a service.²² Consequently, transactions with raw data, aggregated data and the supply of big data analytics are services. Only when there is a tangible carrier, such as a USB stick, and the data creates a basic standard program that may be used with a limited user instruction, a data program may be classified as goods.²³ The supply of individual data which is not standard software such as a game, also when it is supplied as a tangible carrier, would be considered as a supply of services for VAT purposes.

As regards VAT, different services are taxed differently depending on the character of the services. Special rules apply regarding the place of taxation and the collection of tax for electronically supplied services. Electronically supplied services include services which are delivered over the Internet or an electronic network and the nature of which renders their supply essentially automated, involving minimal human intervention, and impossible to ensure in the absence of information technology. Electronically supplied services in particular generally include the supply of digitized products, including software and changes to or upgrades of software. Thus, transactions involving data are in general *electronically supplied services*.²⁴

To conclude, data is an intangible asset that may be sold, leased or licensed. As concerns VAT, the provision of data is generally a service, irrespective of whether it is sold, leased or licensed. Normally it is also an electronically supplied service.

1.3. Source and nexus

A company is resident in Sweden if it is registered with the Swedish Companies Registration Office. Resident companies are taxed on their worldwide income. Non-resident companies are taxed only on their Swedish source income. All income deriving from a permanent establishment in Sweden is taxable in Sweden under the domestic rules.²⁵

There are no special rules on the nexus for taxpayers providing data transactions in Sweden. However, the taxing rights are based on physical presence. Thus, the interpretation

¹⁸ Ch. 3 s. 18 and Ch. 6 s. 11 ITA.

¹⁹ Swedish Administrative Supreme Court case RÅ 1958 ref. 48 and Governmental Bill prop. 1981/82:10 p. 59.

²⁰ Swedish Administrative Supreme Court case RÅ 1958 ref. 48 and Governmental Bill prop. 1981/82:10 p. 60.

²¹ Ch. 1 s. 6 VATA.

²² Ch. 1 s. 6 VATA.

²³ Skatteverket (The Swedish Tax Agency), Rättslig vägledning mervärdesskatt, Vara eller tjänst, <https://www4.skatteverket.se/rattsligvagledning/edition/2021.17/329314.html>, accessed 12 December 2021. See also art. 7 (3) of the Council Implementing Regulation (EU) No 282/2011 of 15 March 2011 laying down implementing measures for Directive 2006/112/EC on the common system of value added tax (the Implementing Regulation).

²⁴ Art. 7(1) and 7 (2) of the Implementing regulation.

²⁵ Ch. 6 ss. 3, 4, 7 and 11 ITA.

of permanent establishment for companies involved in data transactions is decisive for taxing rights. The definition of permanent establishment in Swedish income tax law is based on the definition in article 5 of the OECD Model Tax Convention and shall thus be interpreted in that light.²⁶ Consequently, a permanent establishment is the fixed place of business through which the business of an enterprise is wholly or partly conducted. It specifically includes a place of management, a branch, an office, a factory, a workshop, a mine, an oil or gas well, a quarry or any other place of extraction of natural resource, a building site or construction or installation project and immovable property that is classified as stock in a business activity.²⁷ A permanent establishment does not only depend on the presence of an independent agent who acts on behalf of the enterprise in the ordinary course of that business.²⁸

Non-resident companies that receive royalty or periodical fees for the use of tangible or intangible assets are taxed in Sweden if the company that makes the payments has a permanent establishment in Sweden.²⁹ In such a case, the foreign company is deemed to have a permanent establishment in Sweden. This does not apply when the EU Interest and Royalties Directive states otherwise.³⁰

In the case of HFD 2013 not. 78, the Supreme Administrative Court overruled an advance ruling regarding whether a server that a foreign company had placed in rented premises constituted a permanent establishment. The Court stated that the question of the circumstances under which a company's business activities are deemed to be carried out where the company has its equipment, for example, a server, must be decided on a case-by-case basis.

According to the Swedish Tax Agency, a server may in some situations be a place of business. A permanent establishment may entail a foreign company having one or more servers placed in Sweden with the activities consisting of providing storage and data capacity at the server facility to customers. There is no permanent establishment if the foreign company leases the server in its entirety to another company which uses it in its business activities.³¹

A server placed in Sweden may also constitute a permanent establishment when it is combined with a website from which customers are able to purchase goods and services. This is, for example, the case when customers purchase software from a website. Also, when a server is not used for direct contact with customers, it may constitute a permanent establishment. This is the case when a foreign company's business activities consist of using a server for data storage and processing.³²

Securities, bank accounts and intellectual property rights cannot alone qualify as a permanent establishment since they cannot be a "place" of business.³³

²⁶ Swedish Supreme Administrative Court cases RÅ 2009 ref. 91 and HFD 2013 not. 78.

²⁷ Ch. 2 s. 29 ITA.

²⁸ Ch. 2 s. 29 ITA.

²⁹ Ch. 6 s. 11 para. 2 ITA.

³⁰ Ch. 6 a ITA.

³¹ Skatteverket, Rättslig vägledning 2021, Fast driftställe, <https://www4.skatteverket.se/rattsligvagledning/edition/2021.17/2690.html> (accessed 12 December 2021).

³² Skatteverket, Ställningstagande, Server som fast driftställe, Dnr: 202 493137-18/111, 29 November 2018, <https://www4.skatteverket.se/rattsligvagledning/372979.html?date=2018-11-29> (accessed 24 October 2020).

³³ Skatteverket, Rättslig vägledning 2021, Fast driftställe, <https://www4.skatteverket.se/rattsligvagledning/edition/2021.17/2690.html> (accessed 12 December 2021).

The position of the Swedish Tax Agency with regard to permanent establishment is to follow the interpretation laid down in the Commentary to article 5 of the OECD Model Tax Convention. The Swedish Tax Agency expressly refers to paragraphs 122-131 on electronic commerce in its interpretation of the national concept of permanent establishment.³⁴

As the law stands today, a company dealing with raw data and that only has customers in Sweden will not have a permanent establishment in Sweden. If that company has premises in Sweden, it will most likely have a PE in Sweden. The same applies if a company were to provide aggregated data in, for example, the form of a data set. If a manufacturing company produces self-driving cars and develops the technology, it does not only require premises for servers and staff, but it also needs factories and warehouses. Such a company is much more materially manifested/visible. Still, the same issue as for companies dealing with raw and aggregated data arises in that the place of value creation may easily be placed in a jurisdiction with favourable tax laws.

Part Two: Application of treaty principles

2.1. General overview

Sweden has concluded 106 tax treaties, 16 treaties on tax liability in certain situations and 28 tax information exchange agreements. Swedish tax treaties are based on the OECD Model Tax Convention. The general rule on business income corresponding to article 7 (1) of the OECD Model Tax Convention does not withdraw the taxing right from a permanent establishment, since the income may also be taxed in the country of the permanent establishment.

As mentioned above, a foreign, non-EU company that receives royalty payments is considered to have a permanent establishment in Sweden if the company that pays the royalty fees is established in Sweden. In most tax treaties that Sweden has entered into, only the state of the recipient of the royalty payment has the right to tax. In a small number of tax treaties, Sweden has kept the taxing right. Where this is the case, Sweden only has, in accordance with article 12 of the OECD Model Tax Convention, the right to tax a certain per cent of the royalty income.³⁵

The Swedish Tax Agency released a statement in April 2020, where it gives its view on states' reservations, observations and positions with regard to the OECD Model Tax Convention. According to the Swedish Tax Agency, a reservation to the OECD Model Tax Convention is only of relevance if it is expressed in a tax treaty. An observation to the Commentary to the OECD Model Tax Convention should be understood as the country's view on how the article should be interpreted. If the other country's position deviates from the Swedish view, the Swedish view should prevail as regards the interpretation of the treaty article in Sweden, as long as the Swedish view does not contradict the wording of the treaty. In the event of double taxation, the taxable person should use the mutual agreement

³⁴ Skatteverket, Ställningstagande, Server som fast driftställe, Dnr: 202 493137-18/111, 29 November 2018, <https://www4.skatteverket.se/rattsligvagledning/372979.html?date=2018-11-29> (accessed 24 October 2020).

³⁵ Skatteverket, Rättslig vägledning 2021, Royalty, <https://www4.skatteverket.se/rattsligvagledning/edition/2021.17/2693.html> (accessed 12 December 2021).

procedure. Positions of non-OECD member states should be taken into consideration in the same way as reservations and observations.³⁶

2.2. Detailed comments

Detailed comments on how data transactions would be treated under a typical tax treaty analysis are open to an endless number of issues and scenarios. The focus is on business profits, royalties, payments for the use of industrial, commercial, or scientific equipment, fees for services of a technical, managerial or consultancy nature and a services PE. I base the reasoning on a case where the provider is a US company with business in Sweden. Thus, the Convention between the government of Sweden and the government of the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income (The Swedish/US Tax Treaty)³⁷ is chosen as an example. The activities of the US company consist of the provision of copies of data sets which the US company stores and structures in its own databases. The Swedish/US Tax Treaty is based on the OECD Model Tax Convention. Consequently, the Commentary to the OECD Model Tax Convention provides guidelines for how to interpret the Swedish/US Tax Treaty.

Under article 7 of the Swedish/US Tax Treaty, business profits shall be taxable only in that state unless the enterprise carries on business in the other contracting state through a permanent establishment situated in that state. If the enterprise conducts business as described above, the profits of that enterprise may be taxed in the other state but only the amounts that are attributable to that permanent establishment. Thus, the US company shall be taxed in Sweden only if it has a permanent establishment there. This corresponds with Swedish national law.

The permanent establishment is defined in article 5 of the Swedish/US Tax Treaty. It does not contain any special rules for data transactions. As has been described above in relation to national law, which is also interpreted in accordance with the Commentary to the OECD Model Tax Convention, it may be sufficient for the US Company to place a server in Sweden to have a permanent establishment there. If there is a permanent establishment in Sweden, Sweden may tax the income that is attributed to the permanent establishment. The tax that is paid in Sweden shall be credited against the US tax on income.

Whether the US company has a permanent establishment in Sweden, depends on the circumstances. If the company only has customers in Sweden, it will not have a permanent establishment there.³⁸ If the US company has its equipment in Sweden, it may have a permanent establishment. Where, as in this case, the company has its own databases and provides copies of data sets to customers in Sweden, the server may be situated in Sweden. The server may in such a situation constitute a permanent establishment, if it is a fixed

³⁶ The Swedish Tax Agency, Skatteverkets ställningstagande, Betydelsen av reservationer, anmärkningar och ståndpunkter i OECD:s modellavtal, Dnr: 8-18742, 2 April 2020, <https://www4.skatteverket.se/rattsligvagledning/383014.html> (accessed 26 October 2020).

³⁷ The treaty is available in full text here: <https://www4.skatteverket.se/rattsligvagledning/2790.html>, (accessed 24 October 2020).

³⁸ OECD Model Tax Convention Commentary to art. 5 para. 123, https://read.oecd-ilibrary.org/taxation/model-tax-convention-on-income-and-on-capital-condensed-version-2017_mtc_cond-2017-en#page154 (accessed 24 October 2020).

facility.³⁹ It could also be the case that the US company has both technical and staff resources in Sweden, and in that case it is obviously a permanent establishment.

If the customers pay a licence fee, the income could be classified as a royalty payment under article 12 of the Swedish/US Tax Treaty.⁴⁰ Under this article, the term “royalties” means payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work (including motion pictures and works on film, tape or other means of reproduction used for radio or television broadcasting), any patent, trade mark, design or model, plan, secret formula or process, or other such rights or property, or for information concerning industrial, commercial or scientific experience. The term “royalties” also includes gains derived from the alienation of any such right or property which are contingent on the productivity, use, or disposition thereof. Since data as such is not protected, a payment for access to copies of data sets is not necessarily a royalty; although it could be, if a licence fee were paid for the right to use a computer program. The same could also apply if the payments pertain to data which is integrated in industrial, commercial, and scientific equipment. In such situations, the equipment may be protected by various intellectual property rights, and periodically paid fees could, if they are paid for the use of these rights, be classified as royalties. The Swedish/US Tax Treaty gives the sole taxing right of royalties to the country of the recipient of the royalty payments, which in this case would be the US.⁴¹ This would not apply if the US company had a permanent establishment in Sweden.⁴²

If the US company were to provide services of a technical, managerial or consultancy nature, it would perhaps have a permanent establishment in Sweden if there were technical and staff resources in Sweden and they were fixed.⁴³

Part Three: Transfer pricing

The arm's length-standard is stated both in chapter 14 section 19 ITA and in all tax treaties that Sweden has acceded, which are based on article 9 of the OECD Model Tax Convention. It follows from the arm's lengths rule in chapter 14 section 19 ITA that the taxable result of a business that has been reduced due to terms that deviate from what would have been agreed between unrelated parties, shall be adjusted to the amount which would have been achieved if the conditions were between unrelated parties, provided that the following conditions are met:

1. The party to which the higher result has been accrued is not liable to tax in Sweden
2. There is probable cause to assume the existence of an economic affiliation between the parties
3. The terms have not been concluded for reasons other than economic affiliation.

³⁹ OECD Model Tax Convention Commentary to art. 5 paras. 124-125, https://read.oecd-ilibrary.org/taxation/model-tax-convention-on-income-and-on-capital-condensed-version-2017_mtc_cond-2017-en#page154 (accessed 24 October 2020).

⁴⁰ See Supreme Administrative Court Case RÅ 2004 ref. 20 on the application of art. 12 of the Swedish/US Tax Treaty.

⁴¹ Art. 12 (1) of the Swedish/US Tax Treaty.

⁴² Art. 12 (3) of Swedish/US Tax Treaty.

⁴³ Art. 5 of Swedish/US Tax Treaty.

Interrelated parties are defined in chapter 14 section 20 ITA:

1. A party, directly or indirectly, participates in the management of another party's business or owns shares in the equity of that business or,
2. The same people, directly or indirectly, participate in the management of both businesses or own shares in the equity of these businesses.⁴⁴

According to the Swedish Supreme Administrative Court, the transfer pricing guidelines are relevant for the application of the arm's length standard.⁴⁵ Swedish case law from the Swedish Supreme Administrative Court is relatively scarce.⁴⁶

A permanent establishment is treated as a separate entity from the foreign entity.⁴⁷ The amount of tax that is attributed to a permanent establishment is largely determined by the permanent establishment's financial accounts. The transfer pricing dealings between the permanent establishment and the foreign entity of which it is a part, are not subject to any special Swedish rules but are largely decided by the OECD Transfer Pricing Guidelines and reports.⁴⁸

There is no case law from the Swedish Supreme Administrative Court on intellectual property, but some cases from the administrative courts of appeal on royalties and trademark licences may provide some guidance.⁴⁹ The Swedish Tax Agency has, with regard to the sharing economy, stated that the most important functions, risks and assets are where the supplier is established, which in the case of the sharing economy is the platform provider.⁵⁰ If the platform provider is established in local markets, the services provided to the local establishments are mainly internal daily business services, and therefore do not have a very high value.⁵¹ The Swedish Tax Agency is of the clear opinion that functions, risks and assets – rather than where the customers are – shall be decisive for transfer pricing, also in the new economy.⁵²

A transfer pricing issue in relation to data occurs when a platform company moves the platform and the maintenance thereof abroad. Since the platform is the main basis for

⁴⁴ Translation into English by Ahonen, Jari, Allvin, Elvira, Jørgensen, Mosegaard Kelstrup, Asger (Deloitte), *Global Transfer Pricing: Principles and Practice*. Nordic Territories, Bloomsbury Professional 2020, 289.

⁴⁵ Swedish Supreme Administrative Court cases RÅ 1991 ref. 107 and HFD 2016 ref. 45.

⁴⁶ Ahonen, Allvin, Jørgensen, Mosegaard Kelstrup 2020, 290.

⁴⁷ Swedish Supreme Administrative Court case RÅ 1971 ref. 50.

⁴⁸ See Ahonen, Allvin, Jørgensen, Mosegaard Kelstrup 2020, 297-298.

⁴⁹ See Ahonen, Allvin, Jørgensen, Mosegaard Kelstrup 2020, 297-298.

⁵⁰ The Swedish Tax Agency, Skatteverket Delningsekonomi. Kartläggning och analys av delningsekonomin på verkan på skattesystemet. Regleringsbrevsuppdrag. slutrapport, Rapport 131 129 651-16/113, 31 October 2016, 35. <https://www.skatteverket.se/download/h8.361dc8c15312eff6fd31f4b/1477898771480/Delningsekonomi%20-%20Skatteverktes%20slutrapport%20161031.pdf#page=34&zoom=100,129,570>, accessed 25 October 2020.

⁵¹ The Swedish Tax Agency, Skatteverket Delningsekonomi. Kartläggning och analys av delningsekonomin på verkan på skattesystemet. Regleringsbrevsuppdrag. slutrapport, Rapport 131 129 651-16/113, 31 October 2016, 35. <https://www.skatteverket.se/download/h8.361dc8c15312eff6fd31f4b/1477898771480/Delningsekonomi%20-%20Skatteverktes%20slutrapport%20161031.pdf#page=34&zoom=100,129,570>, accessed 25 October 2020.

⁵² The Swedish Tax Agency, Skatteverket Delningsekonomi. Kartläggning och analys av delningsekonomin på verkan på skattesystemet. Regleringsbrevsuppdrag. slutrapport, Rapport 131 129 651-16/113, 31 October 2016, 35. <https://www.skatteverket.se/download/h8.361dc8c15312eff6fd31f4b/1477898771480/Delningsekonomi%20-%20Skatteverktes%20slutrapport%20161031.pdf#page=34&zoom=100,129,570>, accessed 25 October 2020.

value creation and the taxing rights follow the platform, such a transaction means that a part of the previous tax base leaves Sweden. This also applies in other situations where an intangible asset, such as a database, leaves Sweden. Normally, if no remuneration is paid, the transfer would lead to taxation at the fair market value. In some cases, the maintenance and the development remain in Sweden even after a restructure. For transfer pricing purposes, the transferring company should receive an arm's length price for the functions, risks and assets that were connected to the Swedish activities. Even when this is the case, after such a restructure, the consideration for these activities will be lower in comparison to a situation where the database had stayed in Sweden.⁵³

The DEMPE functions are development, enhancement, maintenance, protection, and exploitation. There is no special Swedish approach on what functions constitute DEMPE functions in the development and exploitation of big data transactions. The Swedish Tax Agency simply refers to the OECD report.⁵⁴

The three categories of big data included in this report, raw data, aggregated data and data analysis, which is integrated in other products, concern, from a transfer pricing perspective intangible property, tangible property and intra-group services. The first step in a transfer pricing analysis involving intangible assets is to determine the legal ownership and contractual arrangements. This makes it clear what the intangible asset is and which party has the legal monopoly. Only if the asset and the legal monopoly are identified, the question of who may charge whom may be answered. The second step identifies the contributions of the individual group members to the creation of an intangible value. The Transfer Pricing Guidelines require the members to receive compensation for any functions they perform, assets they use, and risks they assume in connection with the DEMPE functions. For example, when some of the DEMPE functions are outsourced to a related party, that party needs to receive arm's length compensation.⁵⁵

Setting the arm's length price on intangibles, the use of aggregated data is not easy, since all data sets are unique. The comparable uncontrolled price (CUP) is seldom available. Other methods are adjusted CUP/CUT, which entail a comparison with similar but not identical data transactions, return on research and development, residual profit method, and profit available method. In the event that the intangible is only partly developed at the time of the transfer, it may be a so-called "hard to value intangible". The OECD has released guidance for "Tax Administrations on the Application of the Approach to Hard-to-value-Intangibles" under BEPS Action 8. According to these, the tax administrations are entitled to use *ex-post* evidence to make a risk assessment of the arm's length price. If two parties contribute equally, a profit split method may be more feasible. Another alternative is the TNMM method (transactional net margin method) which is, however, one-sided.⁵⁶

The Administrative Court of Appeal in Stockholm recently settled a dispute on valuation

⁵³ The Swedish Tax Agency, Skatteverket Delningsekonomi. Kartläggning och analys av delningsekonomin på verkan på skattesystemet. Regleringsbrevsuppdrag, slutrapport, Rapport 131 129 651-16/113, 31 October 2016, 36. <https://www.skatteverket.se/download/18.361dc8c15312eff6fd31f4b/1477898771480/Delningsekonomi%20-%20Skatteverktess%20slutrapport%20161031.pdf#page=34&zoom=100,129,570>, accessed 25 October 2020.

⁵⁴ The Swedish Tax Agency, Skatteverket, Rättslig vägledning, Inkomstskatt, Internprissättning, Immateriella tillgångar, <https://www4.skatteverket.se/rattsligvagledning/331425.html>, accessed 12 December 2021.

⁵⁵ Ahonen, Allvin, Jørgensen, Mosegaard Kelstrup 2020, 114-115.

⁵⁶ See Ahonen, Allvin, Jørgensen, Mosegaard Kelstrup 2020, 123-143.

of intangibles in the so called Datawatch case.⁵⁷ In this case a US group acquired a Swedish limited company which developed and distributed computer software. The company remained the owner of the software, and the other group members paid royalty for using it. The court however found that the control of the risk was transferred to the US group member Datawatch Inc, due to the following circumstances:

- Datawatch Inc had formal decision rights over the Swedish company's general activities
- The Swedish company had given up its distribution
- Datawatch Inc had formal control over the development of the software
- Datawatch had made decisions about the exploration of the intangibles
- Datawatch had the real power to prevent others from using the intangibles

The transfer price was determined to the price that Datawatch Inc had paid when it acquired the Swedish company reduced with the value of the remaining visible assets in the Swedish company's balance sheet. The royalty payments could not be considered as remuneration for the intangibles. The judgment is also directly relevant for the situation where a company dealing with big data is acquired. If the acquirer starts using the data for consideration, under similar circumstances as in the Datawatch case, not the actually paid fee but the acquisition price minus the value of the remaining visible assets may be the correct transfer price for the use of the data. It remains however to be seen if the Supreme Administrative Court grants a leave to appeal, and, if so, the decision will be changed or not. The judgment has been lively debated in Swedish tax doctrine.⁵⁸

Where big data is integrated in an asset, for example a self-driving car, the car as such qualifies as tangible goods for transfer pricing purposes. For the self-driving car as such, there may well be a CUP available. More complicated transfer pricing issues may occur both if the data as such is controlled by another group member, and an arm's length price has to be set between the data provider and the manufacturer. There may also be intra-group services, for example regarding technical development, marketing and management. For transfer pricing purposes, to qualify as a service, there has to be a benefit to the recipient company. In practice, three methods for setting the arm's length price, are used for services: the CUP, cost-plus and the TNMM method.⁵⁹

Part Four: Special regimes

4.1. General overview

The Swedish tax system is based on a broad tax basis with few special regimes. Thus, there is no such thing as DST, patent boxes, or similar special schemes that apply on data transactions.

⁵⁷ Kammarrätten i Stockholm, 24 March 2020, Case 4775-4777-19.

⁵⁸ See Andersson, Thomas, Något om tillämpningen av 14 kap. 19 § IL och bevisvärderingen i Datawatch-domen, Skattenytt 2020, 665-687, Ramber, Jonas, Lewin, Olov, Har kammarrätten beslutat om det största skattebortfallet i modern tid? Svensk skattetidning 2020, 113-131.

⁵⁹ Ahonen, Allvin, Jørgensen, Mosegaard Kelstrup 2020, 57.

4.2. DST

Not applicable.

4.3. Incentives

Not applicable.

4.4. Barter treatment

In some jurisdictions, it has been discussed that a user's enjoyment of free digital services in cases where the provider is able to collect user data, constitutes a barter transaction that could be recognized for VAT or other purposes. This does not apply in Sweden either for VAT or for income tax purposes.

Part Five: Indirect tax

The general consumption tax in Sweden is, as indicated above, VAT. There are no excise duties or other special consumption taxes that apply to data transactions. Since Sweden is a member of the EU, VAT is EU harmonized.

For VAT purposes, taxable transactions regard either goods or services. Goods are, as mentioned in Part One, tangible property, including real estate, gas, heating and electricity. Everything else that may be traded, is services.⁶⁰ The value of goods is often created more by services than by the substance of the goods. This applies, for example, to mobile phones, computers, books and cars. This does not, however, change the fact that these products are goods for VAT purposes. Self-driving cars will thus still be goods. There are three different categories of taxable transactions in VAT:

1. The supply of goods and services within the country by a taxable person acting as such,
2. Intra-Union acquisitions of goods,
3. Importation of goods from third countries, outside the EU VAT territory.⁶¹

As mentioned above, there are special rules for electronically supplied services. According to the EU Implementing Regulation, which is directly applicable in all member states, electronically supplied services are "services which are delivered over the Internet or an electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention, and impossible to ensure in the absence of information technology".⁶² In Annex II of the VAT Directive,⁶³ electronically supplied services

⁶⁰ Ch. 1 s. 6 VATA.

⁶¹ Ch. 1 s. 1 VATA.

⁶² Art. 7 (1) of the Council implementing regulation (EU) No 282/2011 of March 2011 laying down implementing measures for Directive 2006/112/EC on the common system of value added tax.

⁶³ Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax.

are listed. The provision of raw data and aggregated data would normally be electronically supplied services.

Electronically supplied services are taxed according to the general rule in article 44 of the VAT Directive when sold to taxable persons.⁶⁴ This general rule means that the service is taxed in the state of the customer, and is subject to reverse charges,⁶⁵ which means that the customer is liable to tax. When supplied to non-taxable persons, these services are taxed in the member state where the customer is established, has his or her permanent address or usually resides. If the customer is a non-taxable legal person, that person is established where the functions of his central administration are carried out, or the place of any other establishment with a sufficient degree of permanence and a suitable structure in terms of human and technical resources to enable him/her to receive the services for his/her own needs.

An important question regarding these supplies is to establish the status of the customer. Both the general rule in article 44 for business-to-business supplies and the specific provision in article 58 (1) of the VAT Directive for business-to-consumer supplies lead to taxation according to the destination principle (where the customer is established). The main difference is, however, that in business-to-business supplies it is the acquirer of the service that is liable to tax due to the reverse charge mechanism, whereas it is the supplier that is liable to tax when services are supplied in accordance with article 58 (1).

There are no VAT exemptions in relation to data transactions. The general VAT rate in Sweden is 25 %. There are two reduced rates of 12 % and 6 %. The reduced rate that may apply to data transactions is 6 %. Aggregated data, for example, news feeds displayed on a website, may be subject to this reduced rate, if it qualifies as an e-journal. Licence agreements regarding copyright are normally subject to the tax rate of 6 %. This does not, however, include systems and programs for automated data processing and similar recordings used for information.⁶⁶

Taxable persons who acquire goods or services for their taxable transactions have the right to deduct input VAT.⁶⁷ Thus, input VAT does not form a cost for these persons. If a taxable person makes acquisitions for tax exempt activities and therefore does not have any right to deduct input VAT under the VATA, the VAT is deductible as a cost for income/corporate tax purposes.⁶⁸

Part Six: Tax accounting

The section on tax accounting should be completed only if there are areas of material uncertainty or anomalous results for big data transactions. As mentioned above, the main rule regarding the valuation of assets and debts and accrual of income and expenditures is that taxation follows business accounting. This may be considered as special, but there is not anything anomalous in relation to big data transactions. The taxation of revenues complies with business accounting rules with only few exceptions. The costs that arise from

⁶⁴ Ch. 5 s. 5 VATA.

⁶⁵ Ch. 1 s. 2 No. 2 VATA.

⁶⁶ Ch. 7 s. 1 VATA.

⁶⁷ Ch. 8 s. 3 VATA.

⁶⁸ Ch. 16 s. 1 ITA.

the collection and maintenance of data sets may, when the rules on business accounting allow it, be activated and thereafter be subject to depreciations. If they may not be activated as an asset, the costs are recognized immediately. The same applies to the costs incurred from the development of databases and data analytics tools. Maintenance costs would be recognized as costs immediately.

Part Seven: Cases provided by the general reporter

The general reporter has provided the branch reporters with cases. Below are brief answers in relation to the cases.

Case 1: Data Brokers / Information Resellers

An enterprise is in the business of gathering data from various sources in order to build profiles of consumer behaviour ("Broker Co"). Broker Co gathers some information through application program interfaces ("APIs") which a website owner ("Website Co") may allow to provide access to information generated through traffic on Website Co's website. Broker Co. also may separately contract with other suppliers to acquire information through loyalty cards, user-contributed data from social media websites, and various other sources. Broker Co makes an annual payment to Website Co for access to user generated data through the API.

Broker Co. invests in engineering personnel who develop data analytics software which organizes and structures the data. Data retained in Broker Co's structured database may persist for several years. Broker Co. sells copies of data sets to Customers. Customers may set parameters to define the data sets they purchase. Customers may purchase the data sets for purposes of targeted advertising, fraud, detection, marketing analysis, insurance risk analysis, or similar purposes. Broker Co charges Customer fees based on the size of data sets supplied and the degree of analytics which it had applied to that data set. Broker Co by contract prohibits Customers from on-selling the data. Customers may use the purchased data sets for as long as they wish, although the value of a static data set decreases rapidly over time.

Most Customers are located outside Broker Co's country of residence and will typically download the data sets from Broker Co's servers. The data relates to persons resident inside and outside the residence jurisdictions of Website Co, Broker Co, and Customer.

Possible issues to address:

- (i) character: this example describes two payments that must be characterized for tax purposes, payments by Customer to Broker Co, and (ii) by Broker Co to Website Co. Does the character of these payments depend on the nature of data or Broker Co's structured database as property under applicable law? Does the lack of ownership of a property interest in the data itself signify something other than a sale? Under what circumstances could these transactions be characterized as a lease or license? If the data transferred is not property, should the transaction be characterized as a provision

of service? Do the differences in the commercial relationships between Website Co and Broker Co, and between Broker Co and Customer, indicate a different character of the two transactions?

Answer: The database is most likely protected by the *sui generis* database right since Broker Co seems to have made investments in it. For the customer, it would be an intangible acquired from someone else. It seems however to lose value rapidly. Thus, from a Swedish perspective, it does not have to be subject to depreciations but the cost may be taken already in year one. Data transferred from Website Co is also a component in forming the intangible “dataset” at Broker Co.

- (ii) source: should the source of the income be at the place of business of Website Co, Broker Co, customer, or the location of the persons who are the data objects? Does the source differ between the two transactions? Does it differ depending on the character of the transactions? How does the determination of source affect the tax treatment of the relevant income item?

Answer: The source of income would be at Website Co and Broker Co.

- (iii) nexus: could direct tax nexus exist for Website Co or Broker Co outside their countries of residence?

Answer: No.

- (iv) transfer pricing: assume that Website Co and Broker Co are related parties. What would be the most appropriate transfer pricing method to determine the price paid by Broker Co to Website Co for access to the user generated data? What facts particular to this business arrangement are most significant in making that determination? How would the different contributions to value of Website Co and Broker Co be evaluated?

Answer: If the data of Website Co or the data sets of Broker Co are not available at an open market, the CUP method would most likely not apply. For Website Co, which provides a less complex product, the CUT method could apply. When applying the residual profit method, you take the profit of the business, apply a reasonable return in respect of all assets and functions other than intangible property and conclude that the residual, or the difference, must relate to the value afforded by the IP license. Also, a full profit split could be useful.

- (v) deduction vs capitalization and amortization: are Broker Co's data acquisition costs and software development expenses currently deductible expenses? If they must be capitalized, can those costs be deducted through amortization expenses? Over what period?

Answer: Companies applying the accounting rules for larger companies (K3) may chose if they capitalize or currently deduct development expenses. Companies applying the accounting rules for smaller companies (K2) may not capitalize development expenses. The latter group of companies may not capitalize intangibles acquired from someone else, if they are used for producing a new unique intangible. Consequently, Broker Co may not capitalize the data acquired from Website Co if Broker Co is a smaller company.

- (vi) DST: if your jurisdiction has or is contemplating a DST, could the DST apply to the revenue of Website Co or Broker Co derived from selling the data sets?

Answer: Not applicable.

Case 2: Data Feeds

An enterprise is in the business of predicting animal migration ("Animal Data Co"). The enterprise gathers data on weather forecasts, food supply, predator density, urban development, climate change, and other elements. The enterprise has developed data analytics tools which it uses to create maps of predicted animal density at various future points of time. Another enterprise operates a website whose viewers would be interested in animal migration information ("Information Site Co"). Information Site Co contracts with Animal Data Co to provide a continuous feed showing migration patterns and predictions for a monthly fee. For the fee, Information Site Co receives the data feed and is entitled to display the information to all viewers on its website. Information Site Co receives no rights to use Animal Data Co's data analytics software and algorithms, except as may be necessary to allow display of the output on Information Site Co's website. Information Site Co does not charge its users a fee to view the information. Information Site Co is located in a different jurisdiction than Animal Data Co.

As an alternative, Animal Data Co is a not-for-profit NGO formed for the purpose of supporting wildlife conservation. Animal Data Co does not charge Information Site Co a fee for the data feed, but it requires Information Site Co to prominently indicate on its website that Animal Data Co is the source of the information and to include a link to Animal Data Co's website. Information Site Co supplies Animal Data Co with personally identifiable data relating to visitors to the website who view the animal migration information. The NGO actively solicits donations from users who click through to its website using data received from Information Site Co to target solicitation requests.

Possible issues to address:

- (i) character: in contrast to the data broker case, Information Site Co does not sell the information received from Animal Data Co. Animal Data Co does not transfer the underlying data items; it transfers the output produced through application of its data analytics software to the underlying data. Do these differences affect the character of the payments by Information Site Co to Animal Data Co?

Answer: This is most likely a service, rather than an intangible.

- (ii) source: the data is gathered from many places on earth. The data analytics tools are developed in Animal Data Co's jurisdiction, while Information Site Co makes the information available to viewers throughout the world via its website. Is source of income determined by the location of the origin of the data, the place of operations of Animal Data Co, the place of operations of Information Site Co, the location of viewers of Information Site Co's website, or some other place?

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Answer: The source would be the place of operations of Animal Data Co.

- (iii) nexus: Animal Data Co is willing to sell access to its data feed to any person. Animal Data Co's sales model is based on advertising the availability of contracts through its website and then entering into contracts online. Assuming that Animal Data Co has no physical presence outside its jurisdiction of operation, could this remote sales model give Animal Data Co nexus in the Information Site Co jurisdiction under your jurisdiction's law?

Answer: No, the remote sales model will not give Animal Data Co nexus in the Information Site Co jurisdiction if Animal Data Co has no physical presence there.

- (iv) treaty application: should these payments be treated as business profits? Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?

Answer: Yes, these payments should be treated as business profits.

- (v) VAT: could the exchange of access to the data feed for personal data generated from click-throughs be seen as an exchange for value between Animal Data Co and Information Site Co? If so, should that barter exchange be recognized as a transaction subject to VAT? Similarly, a viewer of Information Site Co's website allows its data to be transferred to Animal Data Co in exchange for viewing the information feeds on animal migration. Should that exchange be treated as a barter exchange and recognized for VAT purposes (or any other tax purpose)?

Answer: No, Sweden does not regard this as a barter transaction for VAT purposes.

- (vi) DST: if your jurisdiction has or is contemplating a DST, could the DST apply to the revenue of Animal Data Co if the viewers of Information Site Co's website are located in your jurisdiction?

Answer: Not applicable.

Case 3: Performance Data Analytics

An enterprise is engaged in the business of designing, selling, and servicing complex equipment ("Equipment Co"). An affiliate of Equipment Co resident in a different jurisdiction ("Service Co") enters into after-sales service contracts with equipment purchasers. An important part of the service contract is the provision of performance monitoring and failure prediction services to equipment users. Service Co performs those monitoring and prediction services by obtaining real time performance data from the manufacturer's equipment over time, both the equipment purchased by the customer which has entered into the service contract and equipment purchased by other equipment owners. Service Co. has developed data analytics tools which are essential to its ability to perform these services. Those tools analyse data received from the equipment while in operation in

combination with data derived from other machines over time to provide information to the equipment owner and Service Co employees relating to early warnings of failure, risk prediction, suggested preventive maintenance, and needed repairs.

For a heavy equipment product line, Equipment Co installs sensors in the equipment which it sells to customers. Equipment is normally sold on a bundled basis with a one-year service contract. Data collected by the sensors is used to develop performance analytics which enhance the services provided to all equipment owners purchasing a service contract. Most, but not all, equipment purchasers also purchase additional terms of the service contract after the first year.

For a consumer appliance product line, Service Co provides sensor equipment for free to consumers who purchase an after-sales service contract. Some of this equipment is located at consumer locations outside of Service Co's jurisdiction of residence. Service Co uses data derived from the sensors as well as accumulated data to remotely adjust the equipment and to recommend preventive maintenance.

The remote monitoring and failure prediction services are provided through a data center located outside the jurisdiction of the customer. The data center equipment hosts the data base that stores the historic data and captures real time performance data, and hosts the analytics software that predicts failures and proposes remedies. In many cases, the repair services consist of adjustments to software or other equipment controls which can be implemented through communications from the data center without human participation. The data center assets might be owned by Service Co directly, or through a separately incorporated affiliate. Data centers are located in several jurisdictions in order to reduce latency between the equipment being monitored and the data center.

Service Co also provides consumer behaviour consulting services to third parties for a fee based on information received from the consumer appliance user data. The data itself is not transferred to the consulting contract customer.

Possible issues to address:

- (i) character: in all three of these cases, a large part of the value provided by Service Co derives from Service Co's data collection and data analytics capabilities. The automatic software corrections happen without human involvement at the time of delivery. Do these facts affect the characterization analysis?

Answer: No, it is still a service. A service does not have to be carried out by an individual.

- (ii) source: this case includes a remote delivery of automated services from a data center without direct human involvement in the service delivery at the time of delivery. What is the source of services income in this case? Should the source determination be different if Service Co's analytics software is hosted on equipment owned by a third-party cloud service hosting provider?

Answer: The source would be Service Co.

- (iii) nexus – sensors: in both the heavy equipment and consumer appliance cases, data is captured through sensors installed on equipment operating outside the residence state of Service Co. In the case of the heavy equipment, the sensor is installed by Equipment

Co as original equipment, and therefore is owned by the equipment owner. In contrast, the sensors installed on consumer appliances are acquired only by those customers desiring to purchase a service contract, and the sensors remain the property of Service Co. Could those equipment items in either case create direct tax nexus or a PE in the jurisdiction where the equipment is located?

Answer: No, not as the law is applied today.

- (iv) nexus—data centers: the data centers which host the software necessary to provide the remote diagnostics and repair services are located near customers, outside the country of residence of Service Co. Under what circumstances could those data centers create taxable nexus for Service Co in the other state? Please consider the possibilities that the data center assets are owned directly by Service Co, that the assets are owned by a separately incorporated affiliate of Service Co, and that they are owned by an unrelated party cloud hosting services provider.

Answer: In this case, the nexus could be the place of the data center. In its statement on server as a permanent establishment, the Swedish Tax Agency states that in the case of e commerce, if the customer enters into an agreement at a webpage which is placed at a server placed in a certain jurisdiction the server consists of a permanent establishment. The same applies also where the customers do not have direct contact with the provider over the server if the provider's business activities consist in storing and process information.

- (v) treaty application: should these payments be treated as business profits? Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?

Answer: Yes, they would be business profits.

- (vi) transfer pricing: in any of these cases, is there a transaction between Equipment Co and Service Co which must be assessed under the arm's length principle? If so, what factors in this transaction determine which method is the most appropriate method? How would the different contributions to value of Equipment Co and Service Co be valued?

Answer: Yes, the data from the sensors that Equipment Co installs could be a service provided to Service Co since Equipment Co's sensors collect the information. This information creates a benefit for Service Co. Since it is unique data, which is not available at the open market, it is possible that the CUP method will not be applicable. A cost-plus method could be an alternative.

Case 4: Analytics Based Consultancies

An enterprise is engaged in the business of providing consulting services to educational institutions to improve student results ("Consultant Co"). Consultant Co. has accumulated a database designed to capture and analyse data that predicts educational performance, career choice, and earnings potential. The database includes data spanning many years of

student test scores, personal background including socio-economic background, residence addresses, ethnicity, language capabilities, parents' education levels and occupations, and similar factors, and post-graduation employment history. The data objects are located throughout the world. Consultant Co. uses that database to support its consultancy work with educational institutions to improve the likelihood of successful career outcomes through improved educational methods. Consultant Co charges fees on a negotiated project basis for its consulting services.

Consultant Co also allows third party researchers to access its database for a fee to engage in their own research projects. The access agreement does not allow the researcher to further disseminate the data but does allow the researcher to commercialize the results of its research.

Possible issues to address:

- (i) character: Consultant Co commercializes its structured database through different commercialization models. Are the two revenue streams characterized differently, and if so, why?

Answer: There are two different kinds of services, one advisory service and one information service. The tax treatment is however basically the same.

- (ii) treaty application: should these payments be treated as business profits? Under what circumstances might they be treated as payments for know-how, for the use of industrial, commercial or scientific equipment, or for services of a technical, managerial or consultancy nature?

Answer: Yes, they are business profits.

- (iii) deduction vs capitalization and amortization: how should the costs of data acquisition, software development, and creation and maintenance of the searchable database be treated?

Answer: The database is a self-developed intangible. Companies applying the accounting rules for larger companies (K3) may chose if they capitalize or currently deduct development expenses. Companies applying the accounting rules for smaller companies (K2) may not capitalize development expenses. The latter group of companies may not capitalize intangibles acquired from someone else, if they are used for producing a new unique intangible.

- (iv) DST: if your jurisdiction has or is contemplating a DST, could the DST apply to either type of revenue derived from commercializing the student information database?

Answer: Not applicable.

Summary and conclusions

The term “*big data*” has been in use since the early 1990s. Thus, big data is not something that is completely new. What has changed within the last three decades, however, is the development of technology that allows higher volumes of data to be processed in a shorter time. Data-driven business models have become increasingly important in order to maintain critical competitive advantages and market shares. True to the motto “knowledge is power”, the aim today is to gather more information, which will provide ready-to-use insights for business decisions.

For the legal environment, the challenge is to keep up with the technological developments and the digital transformation. The following analysis shows that Switzerland is not only an attractive location for innovation, but also offers an interesting tax and legal framework that allows data-driven corporations to conduct their business under favourable conditions. Especially the patent box and the R&D super-deduction that were implemented in the last tax reform, have shown that Switzerland is not too late in entering the digital age and providing for sustainable tax models that are particularly attractive to data-driven corporations.

I. Introduction and legal background

An introduction to the legal background applicable to data-related transactions and business models is presented as a starting point for analysing domestic and international taxation of data-driven business from a Swiss law perspective.

1. Definition of (big) data

In Swiss law, there is no general or consistent definition of the term “data”. Instead, different definitions apply depending on the field of law and the protective purpose of the respective norm. For example, Swiss data protection law defines (personal) data as, “all information relating to an identified or identifiable person”.² From a Swiss criminal law perspective, the term “data” generally refers to, “all information in the form of letters, numbers, signs, drawings, etc., which is communicated, processed or stored for further use”.³ In a criminal law

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² Art. 3 lit. a of the Federal Act on Data Protection (FADP) (SR 235.1).

³ WEISSENBERGER PHILIPPE, in: Niggli/Wiprächtiger (eds.), Basler Kommentar Strafrecht, art. 143 StGB n. 6.

context, the term “data” is, therefore, broader than according to data protection regulations as it is not restricted to personal data only. There is, however, one important similarity: both terms may contain (items of) *information*.⁴

In Swiss tax law there is no definition of the term “data” at all. For the purpose of this report and from the author’s point of view, it seems appropriate to refer to the terminology provided by the International Organization for Standardization (ISO). According to this definition, the term “data” includes the “reinterpretable representation of information in a formalized manner suitable for communication, interpretation or processing”. As such, data can be processed by humans or by automatic means.⁵

2. Tangible vs. intangible property

As described above, the term data may contain (items of) *information* which can be translated into a form that is efficient for processing. It may seem obvious that the nature of digitally held information is not physical. However, it needs to be considered that digitally held information comes along with a data carrier (for example, a server, USB stick, hard drive, etc.), which, in turn, is a physical object. Therefore, the question arises whether this interaction between tangible and intangible objects may have an impact on the qualification of data as intangible property.

From a Swiss tax perspective, determination of taxable factors is generally based on financial statements. Swiss accounting law, however, does not provide any rules on how an asset must be treated if it contains physical and non-physical elements. It may make sense to have a look at the provisions as provided by the Internationale Financial Reporting Standards (IFRS) as an inspiration how of how the above questions may be answered.⁶ According to the International Accounting Standards (IAS) 38.04, some intangible assets may be contained in or on a physical substance such as a compact disc, legal documentation or film. If an asset incorporates tangible and intangible elements, it is the entity’s responsibility to consider and determine which of the elements is more *significant*. For example, computer software for a computer-controlled machine tool that cannot operate without that specific software is an integral part of the related hardware, and is treated as property, plant and equipment. The same applies to the operating system of a computer. When software is not an integral part of the related hardware, computer software is treated as an intangible asset.

The above statements can also be applied to digital data, as digital data can only be made perceptible (at least for humans) by using a physical substance such as a data carrier. Thus, the important question is what criteria need to be considered when assessing which element is more significant. According to the view represented here, if the data carrier and the data stored on it should be treated as one single asset, the *function* of the physical subject may become a decisive element while conducting this kind of an assessment. If,

⁴ SCHWARZ ANGELICA MARIA, Die handels- und steuerrechtliche Behandlung von Daten, Unter besonderer Berücksichtigung von verrechnungspreislichen Aspekten im internationalen Konzernverhältnis, p. 7 et seqq. (hereinafter «Die handels- und steuerrechtliche Behandlung von Daten»).

⁵ ISO/IEC 2382:2015.

⁶ The IFRS can, of course, only be used as an aid for interpretation if such provisions are in accordance with the systematical framework of Swiss accounting law (cf. SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 69 et seqq.).

for example, the function of the data carrier is solely limited to carrying or storing digital “data”, it does not seem appropriate to consider the intangible element as less significant. This may even apply in the context of big data where the data carriers themselves are often valuable as they are technically designed specifically in order to handle big data volumes.⁷ Especially when data is to be considered as strategic asset on the same scale as resources, it appears justified to also recognize its independent character, value and functions.⁸ In the context of big data, therefore, qualification as an intangible asset might often seem more appropriate from an overall perspective.

3. Rights to data

In Swiss doctrine, there is a lively discussion about the question whether and in what form a property right in data may be established. In general, the distinction between *personal* and *technical* data is made. This kind of a distinction is crucial, since Swiss data protection law applies to personal data only, whereas technical data does not fall within that scope. The distinction, however, is not always easy to draw, since the answer to the question whether data can be assigned to at least one identifiable person varies depending on the context. For example, information that is recorded by a car may be attributable to a specific person if such data is combined with localization data. In this context, it is to be noted that due to the technical possibilities that are constantly growing, more and more personal references can be made from data that was originally anonymous.⁹

3.1. Personal data

Swiss data protection law does not provide for any property rights to personal data. As a consequence, no such right can be transferred to a third party since there is not a comprehensive right to one’s “own” data.¹⁰ Nevertheless, for individuals whose personal data is being processed, data protection regulations provide a legal position that is at least quite comparable to a property right. For example, companies that process personal data are generally only allowed to do so if the individual in question agrees to that.¹¹ Further, data protection law may convey a right to information that allows the individuals to request copies of their processed personal data.¹²

⁷ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 128 et seqq. with further references.

⁸ For the term «data assets» cf. SCHWARZ ANGELICA MARIA, Daten bilanzieren?, in: Recht relevant für Verwaltungsräte, 5/2021 (hereinafter «Daten bilanzieren?»).

⁹ SCHMID ALAIN/SCHMIDT KIRSTEN JOHANNA/ZECH HERBERT, Rechte an Daten – zum Stand der Diskussion, in: sic! 11/2018, p. 2 et seq.

¹⁰ THOUVENIN FLORENT, Wem gehören meine Daten? Zu Sinn und Nutzen einer Erweiterung des Eigentumsbegriffs, in: SJZ 113/2017, p. 26.

¹¹ Art. 13 para. 1 FADP.

¹² Art. 8 para 1 FADP; THOUVENIN, p. 26 et seq.

3.2. Technical data

Data that is not considered as personal data, qualify as technical data. This includes, but is not limited to, data generated by machines without direct human intervention. Since Swiss data protection law does not apply to technical data, the question arises whether Swiss law provides for another legal basis that grants or protects possible rights to data.

3.2.1 *De lege lata*

3.2.1.1. *Property law*

Swiss property law does not provide for a definition of the term “property”. However, there is a wide consensus that the term refers to *tangible objects* only.¹³ As outlined above, data may contain (items of) information and, thus, should likely be qualified as intangible property even if they come along with physical elements. In this sense, Swiss property law cannot grant or protect any rights to data.¹⁴

3.2.1.2. *Intellectual property law*

The Federal Act on Copyright and Related Rights (CopA)¹⁵ regulates, inter alia, the protection of authors of literary and artistic works. According to article 2 paragraph 1 CopA, the term “works” refers to literary and artistic intellectual creations with individual character, irrespective of their value or purpose. Article 10 paragraph 1 CopA grants the author the exclusive right to decide whether, when and how his work is used. In general, data may fall under the scope of Swiss copyright law as long as they contain an intellectual creation with individual character. However, if data is generated by machines without direct human intervention, there is a lack of an intellectual creation, as intellectual creations require a contribution made by a human. On the other hand, databases may qualify for copyright protection provided that the selection or arrangement of the collected data is an intellectual creation with an individual character (cf. article 4 paragraph 1 CopA).¹⁶

3.2.1.3. *Law against unfair competition*

Article 2 of the Federal Act on Unfair Competition (UWG)¹⁷ states that every behaviour or business practice that is deceptive or that in any other way infringes the principle of good faith and which affects the relationship between competitors or between suppliers and customers is unfair and illegal. In particular, according to article 5 lit. c UWG, anyone who adopts and exploits the marketable work product of another person without reasonable effort of his own by means of technical reproduction processes, as such is acting unfairly. In general, a big data analysis may represent a marketable work result and, thus, be protected by article 5 lit. c UWG. The following needs to be considered when it comes to assessing whether or not someone’s own efforts have been contributed: If data collection is only a

¹³ WOLF STEPHAN/WIEGAND WOLFGANG, in: Geiser/Wolf (eds.), Basler Kommentar, Zivilgesetzbuch II, preliminary remarks to art. 641 et seqq. ZGB n. 5 et seq.

¹⁴ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 176 with further references.

¹⁵ SR 235.1.

¹⁶ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 186 et seqq. with further references; SCHMID/SCHMIDT/ZECH, p. 4.

¹⁷ SR 241.

by-product of the actual commercial activity of an entity, the data collection itself is not considered as an effort in the sense of the law against unfair competition. Thus, only the efforts relating to subsequent processing of data may be taken into account.¹⁸

3.2.2. *Doctrine and de lege ferenda*

The above statements show that, to a certain degree, the current law already provides protection regarding technical data. While some authors are of the opinion that this protection is sufficiently comprehensive, others believe that a special data right must be introduced.

3.2.2.1. *Rights to data sources*

Article 641 of the Swiss Civil Code (CC)¹⁹ lays down the principle that the owner of an object is free to dispose of it within the limits of the law. The owner has the right to reclaim it from anyone withholding it from him to protect it against any unwarranted interference. According to article 642 CC, the owner of an object also has ownership of all its constituent parts. A constituent part is anything that, according to local custom, is held to be an essential part of an object and which cannot be detached without destroying, damaging or altering it.

By referring to the above provisions, KOHLER does not consider introduction of a special data right to be necessary, as ownership rights not only refer to the object itself but include its components as well. For example, the legal owner of a car is also entitled to use the data collected by a sensor of the car. Whether and to what extent the car manufacturer is entitled to use this technical data depends on the legal framework as well as on the contractual arrangement.²⁰

According to KOHLER, therefore, the link is made by analysing who has the rights to the data sources. This approach seems to be less of a concern if the data source itself is a physical object (such as a sensor), since in such circumstances the principles provided by Swiss property law may apply. However, it may become more problematic if the data sources themselves are of a digital nature. This could be, for example, the case if the generated data is a result of an internet-based survey that is being conducted anonymously and, thus, cannot be assigned to at least one identifiable person. In addition, a physical source is also missing if data is being transferred from one party to another for the exchange of money.

3.2.2.2. *Res digitalis*

ECKERT, on the other hand, argues for an extension of the concept of Swiss property law and qualifies data as *res digitalis*. Legal uncertainty could be significantly reduced by relying on existing principles. This kind of an understanding would lead to the conclusion that data can be allocated to an owner and that owners generally have the rights provided by property law.²¹ However, if data qualifies as personal data, data protection law must be applied as *lex specialis*. Data protection law, however, cannot assign ownership to the data to the individual whose personal data is being processed. Instead, the owner of the digital data remains the “owner” of the personal data. However, the owner’s rights are restricted by data protection

¹⁸ SCHMID/SCHMIDT/ZECH, p. 5.

¹⁹ SR 210.

²⁰ KOHLER PATRICK, Rechte an Sachdaten, in: *sic!* 7-8/2020, p. 412 et seqq.

²¹ ECKERT MARTIN, Digitale Daten als Wirtschaftsgut: digitale Daten als Sachen, in: *SJZ* 112/2016, p. 249.

law. The same applies if the data fall within the scope of intellectual property law.²²

The critical response to this theory is that data qualifies as a public good and, thus, are not comparable with an object as defined by property law. As a public good, data are non-excludable and non-rival. From a legal (and not from a technical) view, data is non-exclusive as various persons may use the data at the same time.²³

3.2.2.3. *Analogous application of property law*

HESS-ODONI is also of the opinion that Swiss property law only applies to physical objects. The author proposes introduction of an ownership right to data, which is based on the analogous application of Swiss property law regulations and which should be further developed by case law. The ownership right should include, inter alia, a right of free disposal, a surrender claim and a claim for cancellation. Further, transfer of the entitlement to data should be effected by a written legal assignment in analogy to article 164 et seq. of the Swiss Code of Obligations (CO).^{24 25}

3.2.2.4. *Access to data*

According to THOUVEIN/WEBER, introduction of data ownership might create more problems than it solves since there would be a lot of open questions regarding specific implementation. In particular, it would need to be defined who would be entitled to the data that was originally collected. This, however, requires a distinction to be made between personal and technical data, which, as described above, is not always easy to draw.²⁶ In this context, WEBER raises the question whether *access* to data generated by machines should be, to a certain extent, uniformly regulated instead of creating a new right. This kind of regulation would need to take specific sectors into account, as a general right to access data can hardly be implemented.²⁷

4. Interim conclusion

The above statements show that Swiss law neither provides a uniform definition of the term “data”, nor does it provide for an exclusive right to data. The question as to whether and to what extent ownership to data should be introduced remains a controversial issue in both legal writing and public debates. The current discussion of whether or not there should be some type of data ownership will remain controversial, and it is not clear yet whether it will lead to a conclusion and which conclusion that would be.

²² ECKERT MARTIN, Digitale Daten als Wirtschaftsgut: Besitz und Eigentum an digitalen Daten, in: SJZ 112/2016, p. 273 et seq.

²³ SCHMID/SCHMIDT/ZECH, p. 6.

²⁴ SR 220.

²⁵ HESS-ODONI URS, Die Herrschaft an Daten, in: Jusletter from 17 May 2004.

²⁶ THOUVEIN FLORENT/WEBER ROLF H., Zum Bedarf nach einem Dateneigentum, in: Jusletter from 11 December 2017.

²⁷ WEBER ROLF H., Zugang zu maschinengenerierten Daten, in: Jusletter from 2 December 2019.

II. Nexus and character

1. General overview of the Swiss corporate tax system

1.1. Applicable regulations

Swiss tax law does not provide for any specific provisions relating to data transactions or data-driven businesses. Swiss income taxes are in general regulated by federal law (Federal Act on the Federal Direct Tax [FDTA])²⁸ and 26 cantonal tax laws. All cantonal tax laws, however, are required to comply with the harmonization rules as stated in the Federal Act on the Harmonization of Direct Cantonal and Communal Taxes (FHTA).²⁹ As the name suggests, the FHTA seeks to harmonize and align the principles of cantonal laws with each other and with the FDTA as, for example, for determining taxable profit and taxable capital. Due to harmonization of the tax legislation, most of the cantonal tax regulations are identical or at least very similar to the federal legislation.³⁰

Income taxes are levied on the federal, cantonal and communal level. Capital taxes are imposed only at the cantonal and communal level. For the purpose of this branch report, the focus will be on the federal provisions and, thus, on income taxation.

1.2. Taxation of resident corporations

A corporation is considered a Swiss tax resident and, thus, is subject to unlimited tax liability if:

- it is incorporated in Switzerland and, therefore, has its registered seat in Switzerland; or
- its place of effective management is in Switzerland (article 50 FDTA).³¹

On one hand, the legal domicile is determined by the statutes or, respectively, the place where the corporation is formally registered in the commercial registry. On the other hand, there are no provisions defining when a corporation abroad is deemed to be effectively managed in Switzerland. Jurisprudence and practice, however, have generally established that the place of effective management is located where the corporation has its economic and effective center. Thus, and in consideration of the corporate purpose, what is decisive is the location at which the day-to-day business is conducted in line with the corporate purpose.³²

²⁸ SR 642.11.

²⁹ SR 642.14.

³⁰ The tax rates, however, are at the discretion of the cantons.

³¹ Similar rules apply for determining the canton of residence within Switzerland (cf. art. 20 FHTA). It is to be noted, however, that, unlike in international tax law, in intercantonal tax law the criteria of registered seat and the place of effective management are not of equal rank. The place of effective management becomes the decisive factor for determining cantonal residency only if the registered seat is merely of a formal nature (Federal Supreme Court Decision 2C_259/2009 of 22 December 2009, consideration 2.1; OESTERHELT STEFAN/SCHREIBER SUSANNE, in: Zweifel/Beusch (eds.), Kommentar zum Schweizerischen Steuerrecht, Bundesgesetz über die direkte Bundessteuer (DBG), art. 50 DBG n. 17.

³² Federal Supreme Court Decisions 2C_1086/2012 and 2C_1087/2912 of 16 May 2012, consideration 2.2; OESTERHELT/SCHREIBER, art. 50 DBG n. 14 et seqq.

Swiss resident corporations are generally subject to unlimited taxation on their annual worldwide income. Based on domestic provisions, an exemption is made for income attributable to foreign permanent establishments (PEs) and real estate situated abroad (article 52 FDTA). Such income, however, will be considered when determining the applicable tax rate (*Progressionsvorbehalt*).

1.3. Taxation of non-resident corporations

Corporations that are incorporated in a foreign jurisdiction and not effectively managed in Switzerland are considered as non-resident. Non-resident corporations may only be subject to Swiss taxation if a certain economic nexus to Switzerland is established. This kind of a nexus could, in particular, be triggered by income attributable to a Swiss PE (article 51 FDTA)³³.

Article 51 paragraph 2 FDTA defines a PE as a fixed place of business, in which the activities of an enterprise are carried out in full or in part. Article 51 lists a number of examples of PEs, such as a branch, sales office, manufacturing plant or a permanent agency. It is to be noted that Swiss law does not require the presence of human personnel (even though the wording “in which” implies so). Instead, a place of business may also be established by machines or equipment.³⁴ This definition based on Swiss domestic law widely corresponds with the definition provided by article 5 of the OECD’s Model Income Tax Convention (OECD-MC). Whether and to what extent the Swiss definition is broader or narrower than the treaty definition needs to be defined on an individual basis taking specific tax treaty provisions into account.

Based on the wording of article 51 FDTA, it is not entirely clear to what extent preparatory or auxiliary activities are deemed to constitute a Swiss PE in the international context. In *intercantonal* cases, the Federal Supreme Court defines a PE as a fixed place of business with which an enterprise engages in an *essential qualitative and quantitative part* of its technical or commercial activity.³⁵ In international cases, however, article 51 FDTA does not necessarily exclude activities that are of preparatory or auxiliary nature. It is always required though that the performed activities in question are *significant* throughout the value chain.³⁶ In addition, it is to be considered that the Federal Supreme Court tends to apply a broader interpretation of the term “PE” when it comes to inbound cases.³⁷ In 2012 the Federal Supreme Court ruled that higher requirements may be imposed on PEs abroad than on those in Switzerland.³⁸ In Swiss doctrine this decision has been widely criticized.³⁹

For the sake of completeness, it is noted that unlike many other countries, Switzerland

³³ According to art. 51 FDTA, this kind of a nexus could also be established by income in connection with Swiss real property or income derived from Swiss partnerships.

³⁴ OESTERHELT STEFAN/SCHREIBER SUSANNE, in: Zweifel/Beusch (eds.), *Kommentar zum Schweizerischen Steuerrecht, Bundesgesetz über die direkte Bundessteuer (DBG)*, art. 51 DBG n. 32.

³⁵ BGE 110 Ia 190, consideration 3; BGE 95 I 431, consideration 3; BGE 80 I 194, consideration 4b; DE VRIES REILINGH DANIEL, in: Zweifel/Beusch/Mäusli-Allenspach (eds.), *Interkantonaies Steuerrecht*, § 11 n 11 et seqq.

³⁶ OESTERHELT/SCHREIBER, art. 51 DBG n. 43.

³⁷ Cf. art. 52 para. 1 DFTA for outbound constellations.

³⁸ BGE 139 II 78, consideration 3.1.

³⁹ Cf. SCHREIBER SUSANNE/SCHWARZ M. ANGELICA, *Ausgewählte Urteile des Bundesgerichts zum internationalen Steuerrecht*, in: ASA 87, 6-7, 2018-2019, p. 367.

did not introduce the concept of an agent PE into its tax legislation.

1.4. Determination of taxable income

1.4.1. In general

With regard to Swiss resident corporations, taxable income is primarily determined based on the statutory financial statements prepared in accordance with the statutory provisions contained in the CO (known as the principle of determinacy; *Massgeblichkeitsgrundsatz*). In the case of non-resident corporations, branch accounts may serve as a basis. Specific tax adjustments may apply in order to adequately account for the different objectives of commercial and tax law.

Gross income of a corporation includes most income streams. In general, no distinction is made between different sources or categories of income.⁴⁰ For example, capital gains realized by corporations are generally taxed like ordinary income.⁴¹ Further, interest or royalties and service fees are also generally subject to ordinary taxation. All expenses that are commercially justified and meet the arm's length principle are generally tax deductible. With the latest Swiss tax reform, however, exceptions to this general rule have been implemented (cf. below).

1.4.2. Swiss tax reform

On 19 May 2019, the vote regarding tax reform and AHV financing (STAF) was accepted. The main point of STAF was to abolish certain tax privileges⁴² that internationally have been considered as harmful tax practice. In order for Switzerland to continue to be an attractive business location with competitive fiscal conditions (at least from the perspective of the OECD), various measures have been implemented that are considered as non-harmful (and, thus, within the OECD guidelines). The Swiss *patent box* and the *super-deduction* for research and development (R&D) may become relevant to data-driven businesses (cf. below).

2. Residence and nexus of data-driven corporations

2.1. Place of effective management

The above principles show that based on Swiss domestic tax law data-driven corporations may only be considered Swiss tax residents and, thus, subject to unlimited tax liability, if their registered seat or place of effective management is in Switzerland. With regard to the place of effective management, it is to be noted that whereas processing and management of data used to take place under the responsibility of specific departments, the question of

⁴⁰ Cf. STOCKER RAOUL/SCHMID PATRICK, Switzerland, in: Haslehner/Lamensch (eds.), *Taxation and Value Creation*, p. 567.

⁴¹ Depending on cantonal law, exemption may apply with regard to gains realized on the sale of real property.

⁴² These kinds of tax privileges refer to holding, domicile and mixed companies at the cantonal level and to taxation as principal and the finance branch regime at the federal level.

how to deal with big data topics nowadays is mostly answered by company management.⁴³ This especially applies where data analysis is made on a group-wide basis. This is an important reason why management information systems showing the most important key performance indicators (KPIs) on a screen surface (e.g., management dashboards, scorecards or cockpits) have become increasingly important.⁴⁴

Therefore, in order for data-driven corporations to establish their place of effective management in Switzerland, data-related activities (e.g., selling, organizing, analysing, etc.) must be put into the context of the corporate purpose. In this sense, it may be useful to distinguish between (i) companies with mainly physical value chains, which are enriched with digital elements making production more intelligent and (ii) companies with mainly or solely digital or virtual value chains. For example, a car manufacturer intends to speed up the transition from manufacturing to sales. For that reason, the company enriches its physical value chain with collected data in order to digitalize its manufacturing process which, in turn, should lead to enhanced efficiency and cost management. In other words, smart technology is used to implement its industry 4.0 strategy. The physical product (here the car) is still the primary source of value, but data is used to improve the product or service offering. Companies whose business models are purely data-based are in contrast to this. Typical examples are data providers or data brokers. Data providers usually gather and sell raw data without adding significant value to it, whereas data brokers gather and combine data from different sources and create additional value with analytics. Both sell (items of) information that, depending on the grade of refinement, needs to be further processed or offers usable insights without further processing. Unlike the production sector, the business models of these companies are significantly or exclusively based on the concept of a virtual value chain.

For the car manufacturer, data fulfils a *supporting* function, whereas for data providers or brokers data is the *primary purpose* of the business concept. Thus, the question whether or not the place of effective management is in Switzerland cannot be answered equally for all companies using data as a business opportunity, and a case-by-case analysis is required. However, as a general rule, it can be assumed that the more business functions are focused on the use of data, the more important the question becomes as to *where* such data related decisions are made. This applies, in particular, to cases in which C-level functions (e.g., Chief Digital Officer [CDO], Chief Data Officer [CDO], Chief Analytics Officer [CAO] or Chief Innovation Officer [CIO]) are specifically created for big data-related decisions to build analytically mature organizations.

2.2. Swiss PE

2.2.1. *De lege lata*

Limited tax liability requires a certain economic nexus to Switzerland. With regard to data-driven corporations, this kind of a nexus may particularly be established by a PE on Swiss territory. This, however, regularly presupposes that the business is conducted to a certain degree at a fixed place. It can be concluded, therefore, that in Swiss tax law there is (at least currently) no legal basis that would allow taxation of internationally operating

⁴³ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 29.

⁴⁴ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 27.

data-driven corporations with a registered seat or place of effective management outside of Switzerland without a physical market presence in Switzerland. This even holds true if data-driven businesses create value on Swiss territory or if the data-based business model opens access to the Swiss market or Swiss customer segments as long as no fixed place of business is established on Swiss territory. This especially applies where data network effects occur. The term “data network effects” describes a process in which a product or service improves when more users join the network since this leads to generation of more data. For example, as more people from a specific region use a specific navigation app, the more data the company (as the provider of such app) has available to refine key features such as traffic predictions, route suggestions or estimated arrival times. Thus, a solely virtual economic presence (even if significant) does not lead to establishment of a Swiss PE based on current Swiss tax law.

With regard to data collection, a more differentiated approach is required. The question whether collection of data from Swiss sources may establish a Swiss PE depends on the nature of the data source. For example, collection of personal data from human beings may not establish a PE since persons, for obvious reasons, cannot be regarded as a fixed place of business. The possibility that these persons may be in a fixed place of business at the time of data collection does not alter the fact that (i) the premises are not at the disposal of the data-driven corporation and (ii) these persons cannot be regarded as personnel of the company.

The situation, however, may be different if technical data is collected from sensors that are on Swiss territory (e.g., car sensors, weather stations, cameras, GPS sensors, telephone poles, machine sensors and smart devices, which together form the Internet of Things [IoT], etc.). Whether or not a sensor can be regarded as a fixed place of business mainly depends on its nature and purpose. Similar to servers, sensors may, in theory, establish a PE as the presence of human personnel is not a requirement. The discussion surrounding the question of under which criteria a server may establish a PE is more of an academic one, and the author is unaware that this issue has ever been addressed by the Federal Supreme Court.⁴⁵ According to Swiss doctrine, a server will particularly only qualify as a PE if it is considered to be fixed, operates with a certain degree of autonomy and is at the disposal of the corporation.⁴⁶ With regard to sensors, this leads to the following conclusion: Sensors that are mobile (e.g. car sensors) are not fixed and, thus, are not able to establish a PE. Fixed sensors, such as weather stations, may establish a PE as long as the data extracted from them is part of the core business of the corporation and not only of an insignificant nature. Here again, this question can only be answered if a specific business purpose is taken into account. Further, if raw data is extracted, the corporation may be required to further process the data at its headquarters. This may be an important aspect as extraction of raw data can be degraded to a preparatory function.

2.2.2. *De lege ferenda*

In the context of the OECD's work on digital taxation (the two-pillar approach), the State Secretariat for International Finance (SIF) published a statement in November 2019

⁴⁵ In this context, however, it is worth mentioning that in 1903 the Federal Supreme Court characterized vending machines as a PE in an intercantonal constellation (cf. BGE 29 I 8).

⁴⁶ LEHMANN DANIEL, E-Commerce: Steuerliche Rahmenbedingungen, eine Standortbestimmung, in: *Steuer* Revue No. 1/2001, p. 6.

acknowledging the progress on BEPS 2.0. According to this announcement, Switzerland is committed to tax sovereignty and fair tax competition. Thus, the SIF considers that a binding minimum tax level generally hampers innovation and growth.⁴⁷ As a response to the OECD's Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy published on 8 October 2021,⁴⁸ the SIF released another statement calling for legal certainty in the implementation of the key parameters in international corporate taxation. According to the SIF, the new taxing rights for market jurisdictions are moderate, and unilateral digital taxes are to be abolished with binding effect. Other points of importance for Switzerland, however, are still open and to be detailed in the coming months. The SIF highlighted again that Switzerland is committed to rules that foster innovation and prosperity, that are applied uniformly worldwide and that are subject to a dispute settlement mechanism. The aim is to create legal certainty for the companies concerned. Switzerland is critical of the OECD's timetable, as it does not yet sufficiently respect national legislative processes. Thus, it will not be possible for Switzerland to introduce the new rules by 2023, as envisaged by the OECD. In parallel with the ongoing work of the OECD, the Federal Department of Finance, in close collaboration with other departments and the involvement of the cantons, cities, businesses and academia, will, by the first quarter of 2022, draw up internationally accepted proposals for the Federal Council that will continue to offer businesses the best possible framework conditions for sustainable growth.⁴⁹

2.3. *Income taxation*

As stated above, income derived from data transactions or analysis is generally subject to Swiss taxation. However, an exemption may apply if the data architecture containing the big data solution qualifies as a patent or similar right. Further, corporations implementing a data-based business model may be eligible for the R&D super-deduction.

2.3.1. *Patent box*

As of 1 January, Swiss tax reform introduced the patent box at the cantonal and communal levels reducing corporate income tax from qualifying patents and similar intellectual property rights. The benefits granted under the patent box regime are not automatically granted. Instead, a company must file a written request together with supporting documents.⁵⁰

⁴⁷ The SIF announcement is available at <<https://www.sif.admin.ch/sif/en/home/dokumentation/fokus/digitalbesteuerung.html>> (last visited: 12 December 2021).

⁴⁸ The statement is available at <<https://www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.pdf>> (last visited: 12 December 2021).

⁴⁹ The SIF announcement is available at <<https://www.sif.admin.ch/sif/en/home/documentation/press-releases/me-dienmitteilungen.msg-id-85410.html>> (last visited: 12 December 2021).

⁵⁰ It is to be noted that, although it was intended in the BEPS Action plan 5, Switzerland does not include inventions in the patent box by small and medium-sized enterprises (SMEs), which are not protected by a patent.

To put it in a nutshell, the patent box allows income from patents and similar intellectual property rights to the extent that it is based on qualifying R&D expenses in Switzerland, to be reduced up to a maximum of 90% (depending on the cantonal implementation; the relief is, however, subject to an overall maximum deduction of 70% of taxable profit). To enter the patent box, previously incurred R&D expenses from developing the patents in question will have to be taxed at the applicable corporate income tax rate. Resident corporations as well as PEs of non-resident corporations are eligible to benefit from the patent box.⁵¹

2.3.1.1. General requirements

a) Qualifying patents and similar rights

The Swiss patent box regime not only covers Swiss but also foreign patents. According to the Federal Act on Patents for Inventions (PatA),⁵² patents are granted for new inventions applicable in industry (article 1 PatA). An invention is considered to be new if it does not form part of the state of the art (article 2 PatA). Products as well as processes can be patented as long as the invention solves a problem in a new, non-obvious and technical way. Further, the patent box also covers similar (Swiss or foreign) rights such as supplementary protection certificates or topography rights.⁵³ Categorization of boxes may be based on the number of patents, products or product lines.

b) Determination of privileged income

Determination of privileged income requires two steps: As a first step, usually a residual method is applied in order to identify privileged income.⁵⁴ The starting point is the profit resulting from a specific product. If such profit cannot be determined reliably, the total profit of the corporation will be used and reduced by (ordinarily taxed) profits that are not related to the patents or similar rights. As a second step, the identified privileged income will be adjusted by the *modified nexus approach*. This means that only the income attributable to domestic R&D costs can benefit from the tax discount. The nexus ratio is calculated as the ratio of qualifying R&D costs (cost related to R&D activities performed by the corporation and/or unrelated parties) to the total R&D costs (also including any patent acquisition costs). Not qualifying, for example, are expenditures for contract research by foreign group companies. The nexus quotient can be a maximum of 100%. The up-lift⁵⁵ is limited to 30% of qualifying expenses.⁵⁶ Multiplication of the residual profit with the nexus factor results in what is known as box profit (*Boxengewinn*).

⁵¹ BERTSCHINGER MICHAEL/MÜHLEMANN MARCO, Die neue Patentbox – bundesrechtliche Vorgaben und kantonale Umsetzung, in: Steuer Revue No. 75/2020, p. 178.

⁵² SR 232.14.

⁵³ Cf. HINNY PASCAL, Unternehmenssteuerreform (STAF), Praxiskommentar, p. 57 et seqq.

⁵⁴ BERTSCHINGER/MÜHLEMANN, p. 183.

⁵⁵ The purpose of the up-lift is to ensure that the nexus approach does not penalize taxpayers excessively for acquiring IP or outsourcing R&D activities to related parties. The up-lift still ensures that taxpayers only receive benefits if they themselves undertook R&D activities, but it acknowledges that taxpayers that acquired IP or outsourced a portion of the R&D to a related party may themselves still be responsible for much of the value creation that contributed to IP income (HINNY, p. 66 with reference to OECD/G20, BEPS-Action 5, Final Report, 28, ciph. 41).

⁵⁶ Cf. HINNY, p. 65 et seqq.

The above information can be graphically illustrated as follows:

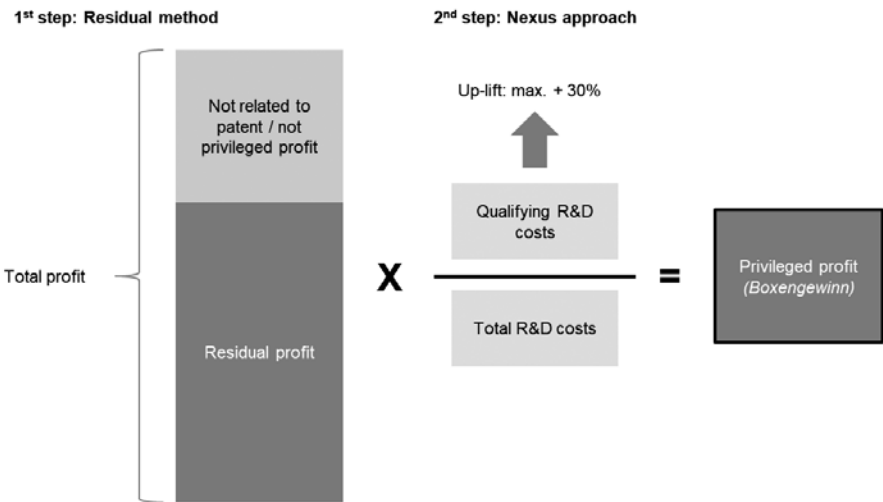


Figure 1: Swiss patent box (illustration inspired by Dietschi Marc/Taddei Pascal, Die Schweizer Patentbox, article available at <<https://www.kalaidos-fh.ch/de-CH/Blog/Posts/Archiv/sr-1191-Die-Schweizer-Patentbox>> (last visited: 12 December 2021).

c) Reduction

A maximum of 90% of adjusted box income will be reduced. Thus, at least 10% will be taxed ordinarily (for the overall maximum deduction cf. above). Although the cantons may legislate a less generous exemption, most of the cantons have adopted the maximum exemption rate (e.g., Zurich, Basel-City, Basel-Land, Berne, Schwyz or Zug).

To enter the patent box, previously incurred R&D expenses that arose to develop the patents in question will have to be taxed at the applicable corporate income tax rates.

2.3.1.2. Patent protection for big data solutions

Big data solutions can be extremely complex, and as the technological environment is of a dynamic nature, the big data landscape is still evolving. In the past, data were often in silos – collected and analysed for single purposes as the costs for storage and testing models were high. With the availability of new technologies, this has now changed, and corporations are eager to bring large datasets together while applying a strategy of data linkage and integration allowing them to make decisions group-wide that are better informed or to make powerful predictions.

The foundation of big data analytics is known as *big data architecture*.⁵⁷ The term “big data architecture” describes the overarching system used to manage large amounts of data so that they can be stored, managed, analysed and exploited for business purposes. In

⁵⁷ Cf. SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 14 et seqq.

other words, big data architecture is a system consisting of different layers and components handling data during data storage, processing, analysis and visualization. There are no strict rules about how big data architecture needs to be designed. Instead, a different data vision needs to be designed depending on the business model as big data strategy should align to corporate business objectives. For example, a big data architecture may be based on a so-called *data warehouse* and, here again, there are various models how a data warehouse and the processes therein may be structured.

Whether or not data-driven businesses can benefit from the patent box, primarily depends on whether the implemented big data system or components thereof can be considered as an innovative invention and, thus, qualify for a patent registration – either in Switzerland or abroad. A glance in the public database *Swissreg*, which registers Swiss patents, shows that it is indeed possible to patent (at minimum) aspects of an overall big data project respectively big data solution. Such projects/solutions are typically based on or combined with software and algorithms. Although there is the general rule in Swiss patent law that software cannot be protected by way of a patent, exceptions may, however, apply if the developed software is linked with a technical innovation (e.g., a sensor or a smart device collecting or analysing data or if an AI-guided machine makes decisions or takes actions based on the software it runs).⁵⁸

Data-driven corporations using big data analysis for improving their products or services will likely determine privileged income based on the residual method as the patent will be contained in the product (unless the corporation keeps a separate product-based profit and loss account). The determination of privileged income might be a challenge, as the corporation will need to justify why the specific amount “x” is to be allocated to the product “y”. Further, an increase of profit must also be causally linked to the patent. As mentioned above, it is possible to categorize the boxes based on patents, products or product lines. It is to be assumed that data-driven corporations will categorize their boxes based on products or product lines if not all inventions are patentable (or will not be made public) but, nonetheless, are somehow integrated in the product. Since the modified nexus approach will ensure that there is enough substance in Switzerland, data-driven corporations that intend to use the patent box regime are well advised to implement a structure that ensures that there are enough domestic R&D costs.

2.3.2. *R&D super-deduction*

2.3.2.1. *General requirements*

Cantons may grant additional deductions for R&D expenditures. The amount of these additional deductions can be up to a maximum of 50% of commercially justified R&D costs. However, only domestic expenditures are taken into consideration and may benefit from the additional R&D super-deduction. In addition, a flat-rate allowance of 35% is added for staff costs to account for other R&D costs, and 80% of the incurred R&D costs contracted from related and third parties in Switzerland can be considered for the R&D super-deduction. Maximum tax relief on profits arising from the patent box and a potential R&D super-deduction cannot exceed 70% of the net profit if a lower relief cap is not applicable

⁵⁸ Federal Council Dispatch of 21 March 2018 on Tax Proposal 17 (TP17) (Botschaft vom 21. März 2018 zum Bundesgesetz über die Steuervorlage 17 [SV17]), BBl 2018 p. 2550.

according to cantonal law. Most of the Swiss cantons have implemented the R&D super-deduction (e.g., Zurich, Geneva, Schwyz or Zug with a super-deduction of 150% and an overall limitation of 70% or Basel-Land with a super-deduction of 120% and an overall limitation of 50%).

In accordance with the Federal Act on the Promotion of Research and Innovation (RIPA),⁵⁹ R&D is defined as follows:

Scientific research (research) means the method-based search for new knowledge; it covers in particular:

1. *basic research: research, the main goal of which is to gain knowledge;*
2. *applied research: research, the main goal of which is to contribute solutions to practical problems; and*
3. *science-based innovation (innovation) means the development of new products, methods, processes and services in industry and society through research, particularly applied research and the exploitation of its results.*

Whether or not the definition of R&D as provided in the OECD's Frascati Manual 2015 is relevant for Swiss tax purposes, is controversial. According to the OECD's Frascati Manual, the term "R&D" requires an activity that is *novel, uncertain, creative, systematic* as well as *transferable or reproducible*. Whereas the Swiss Tax Conference (SSK)⁶⁰ is of the opinion that the OECD's Frascati Manual serves as an interpretation aid,⁶¹ Swiss tax doctrine takes a more critical view.⁶² For example, according to HINNY, the OECD's Frascati Manual is not decisive, as there is neither a legal basis nor a basis in the legislative materials which could justify an approach taking the OECD's definition into consideration. According to this author, the definition as shown in the RIPA as well as the relevant legislative materials rather show the legislator's intention to offer a *wide scope* for the application of the R&D super-deduction. The application of the R&D super-deduction, however, will unnecessarily be narrowed down by the criteria "creative", "uncertain", "systematic" as well as "reproducible", for which a legal basis is missing anyway.⁶³

2.3.2.2. R&D super-deduction for data-driven corporations

Thus, with regard to data-driven corporations, the question arises whether and to what extent activities linked to big data projects and, in particular, data analysis may qualify for the R&D super-deduction.

According to the opinion presented here, a narrow interpretation of the term "R&D" would indeed not be in line with the legislator's intention as presented in the Federal

⁵⁹ SR 420.1.

⁶⁰ The SSK is a Swiss association founded in 1919. Members of the SSK are all cantonal tax administrations as well as the Swiss Federal Tax Administration (SFTA).

⁶¹ Cf. SSK, Analyse zum zusätzlichen Abzug von Forschungs- und Entwicklungsaufwand nach den Art. 10a und Art. 25 Steuerharmonisierungsgesetz, published on 4 June 2020, p. 5 et seqq.

⁶² Cf. HINNY, p. 120 et seqq.; SCHWARZ ANGELICA MARIA, Big data and tax – domestic and international taxation of data driven business, presentation held at the extraordinary general meeting of IFA Switzerland on 10 February 2022; cf. also BUCHER VIKTOR/BUCHER LIVIO, Zusätzliche Abzüge für Forschung & Entwicklung, webinar held on 14 October 2021 (the speakers seem to take a more neutral view but also mentioned the critical voices raised in connection with the OECD's Frascati Manual).

⁶³ Cf. HINNY, p. 120 et seqq.

Council's Dispatch regarding the Tax Proposal 17. It is to be noted, however, that the relevant dispatch does not ignore the OECD's Frascati Manual entirely (it can certainly be debated whether and to what extent such general reference has any significance for the interpretation of R&D).⁶⁴ Due to the fact that there is an explicit reference to the R&D definition as provided in the RIPA, it seems important to also take its scope of application into account: The RIPA governs the specifics of the funding activities of, for example, Innosuisse, a federal entity under public law which goal is to promote *science-based innovation* in the interest of the economy and society in Switzerland.⁶⁵ When having a look at the projects promoted/funded by Innosuisse, it becomes clear that digitalization projects (for example in the area of industry 4.0 or [software systems and services for] predictive maintenance) are also included.⁶⁶ This leads to the conclusion that various activities performed by data-driven corporations should qualify as R&D, such as implementation of an organized data architecture that may include collecting, processing, evaluating, analysing or refining data. In this context, it should be remembered that data may contain (items of) information, and if the information is exploited correctly, it may lead to new knowledge and bring data-generated insights to life. Thus, big data strategies cannot be reduced to simple data collection which would be excluded from the R&D super-deduction. Instead, big data projects usually go much further than that and it is recommended to take a closer look at the complexity and functionality of the data architecture, particularly to identify the original knowledge gap.

The above shows that the R&D super-deduction might be an interesting tool for data-driven corporations aiming to reduce their taxable profit by a deduction that is higher than the amount effectively expensed through the P&L. As the R&D super-deduction can be claimed for certain costs relating to personnel and contract research, data-driven corporations may consider implementing a Swiss structure that allows them to maximize this tax incentive (e.g., having a centralized data unit in Switzerland by hiring talent that can drive data-led innovations).

III. Application of treaty principles

1. Overview

Switzerland currently has double taxation agreements (DTAs) with over 100 countries (including all EU and EFTA countries) and is seeking to extend its agreement network further. Most treaties generally follow the OECD-MC. The following will focus on selected treaty aspects that may become relevant for Swiss resident and non-resident corporations pursuing data-driven business models.

⁶⁴ Dispatch of the Federal Council regarding the Tax Proposal 17 dated 21 March 2018 (BBl 2018/18.031), p. 2551 et seq.

⁶⁵ Cf. also HINNY, p. 110 et seqq.

⁶⁶ Cf. Innosuisse's official website <www.innosuisse.ch> (last visited: 1 March 2022)

2. Specific treaty aspects

2.1. PE

2.1.1. *Fixed place of business and right of use – Big data in the cloud*

Various data-driven corporations are merging their big data strategy with cloud computing services in order to add more capacity to their in-house data warehouse. As big data projects require immense infrastructure resources, cloud computing service providers offer a less costly solution especially for corporations in the early stages of becoming data driven. Particularly when it comes to data mining, cloud computing has made the analytics process less costly and more efficient. For big data-driven corporations, the question, therefore, arises whether and to what extent there is an increased PE exposure when they become customers of a cloud computing service provider (either in inbound or outbound constellations).

Whereas software and websites never pass the place of business test, data centers (which represent the infrastructure for a cloud service) may be an eligible place of business. An evaluation of rights of use is necessary in order to determine whom such a place of business is to be allocated to (cloud provider vs. data-driven corporation as a customer).⁶⁷ In the context of e-commerce, the OECD Commentary of the Model Tax Convention on Income and Capital as it read on 21 November 2017 (OECD Commentary) states that web hosting arrangements are typically not sufficient to obtain rights of use to physical servers.⁶⁸ At first glance, this may appear contradictory as the OECD Commentary also uses the expression “*otherwise at disposal*”.⁶⁹ In Swiss doctrine, it is argued that the perception of a cloud as constituting a permanent establishment on its host server would be contrary to the spirit of the special rules on e-commerce, whose purpose is to prevent the owner of a website from having a PE in a country. Thus, requiring mere factual use would make the right-of-use requirement redundant, which clearly cannot be the intention of the OECD. This is why the mere digital presence of an enterprise in a country, at least today, should not amount to sufficient rights of use. In addition, it is to be noted that customers who use cloud computing services do not have any rights to a specific server but rather to abstract, virtual servers at the software level.⁷⁰

2.1.2. *Preparatory or auxiliary activities – data collection*

In contrast to Swiss domestic law, article 5 paragraph 4 OECD-MC contains a list of activities that do not establish a PE. Switzerland has more or less adopted this provision in many of its DTAs (e.g., with Germany, the US, France, the Netherlands or the UK). Since DTAs restrict the contracting states’ taxation right, the list of exceptions has an important function when assessing whether or not a non-resident corporation establishes a Swiss PE since the domestic PE definition can, in many regards, go further than the treaty definition (inbound

⁶⁷ WEISSER ALEXANDER, International Taxation of Cloud Computing, Permanent Establishment, Treaty Characterization, and Transfer Pricing, p. 175 et seqq.

⁶⁸ OECD Commentary 2017, art. 5 OECD-MC n. 124.

⁶⁹ OECD Commentary 2017, art. 5 OECD-MC n. 10.

⁷⁰ WEISSER, p. 185.

constellations). As electronic or digital goods are not covered by article 5 paragraph 4 lit. b and c OECD-MC, lit. d and e may become relevant for data-driven corporations.⁷¹

Article 5 paragraph 4 lit. d OECD-MC relates to fixed places of business that are used solely to collect information for enterprises. If a fixed place of business is maintained solely for that purpose, it will need to be determined whether collection of information goes beyond the preparatory or auxiliary threshold.⁷² Activities intrinsically related to collection of information (e.g., storage, processing and, to a limited degree, information hunting) should also fall within the scope of this exception clause. However, what goes beyond a systematic arrangement and filtering of information should fall outside the scope.⁷³

As stated above, it is considered that data may represent *information*. Depending on the condition of the data (raw vs. processed data), such information is exploitable or non-exploitable. Whether or not collection of data qualifies as a preparatory or auxiliary activity needs to be determined taking the specific corporate purpose and business model into account. For data-driven corporations whose core purpose consists of collecting and selling raw data, data collection normally will not qualify as preparatory or auxiliary. A different view may be taken if a company collects data in its raw form so that it can convert or process them into a more readable format. If data processing is the main business purpose, collection of raw data may qualify as preparatory. In this writer's opinion, collection of data should qualify as an auxiliary activity if a company's value chain is mainly a physical one and data analytics are used as a tool to improve efficiency or reduce costs. In such a case, the captured information will be integrated in a physical value chain, which makes the data as a supporting element. The same holds true for corporations collecting data through a fixed place for the purpose of market research or the like. In this context, it may make sense to distinguish between external and internal data. External data provided to data consumers may indicate that the data themselves are the business asset and, thus, collecting them is not only a preparatory activity as long as they do not need to be significantly processed further (directly consumable information). These data are the service. When leveraging internal data, however, often another product or service is in the foreground. The question is, therefore, whether the business is built around data or data around the business.

Therefore, data-driven, non-resident corporations generally do not establish a Swiss PE if data are being solely collected on Swiss territory or from Swiss sources. The latter particularly applies if domestic law would define a sensor as a fixed place of business.

For the sake of completeness, it is noted that the wording of article 5 paragraph 4 lit. d OECD-MC limits its scope of application to collection of information for the benefit of the *enterprise*. If data is collected for different group companies, it would need to be analysed whether there is an applicable DTA for each group company restricting Switzerland's taxation right. It may, therefore, be critical for treaty shopping considerations whether the (unprocessed) data are made available to other group companies after collection when an enterprise claims the exception clause of article 5 paragraph 4 lit. d OECD-MC.

⁷¹ Cf. OECD Commentary 2017, art. 5 OECD-MC n. 66. The OECD Commentary explicitly states that the term «*goods*» refers to tangible products and does not cover data. Based on this, it seems that the OECD qualifies data as intangible property without specifying what data exactly is. This is not necessarily obvious, as the comments on treatment of data from a property law (cf. above) and accounting law perspective (cf. below) have shown.

⁷² OECD Commentary 2017, art. 5 OECD-MC n. 69; cf. art. 13 of the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (MLI) (SR 0.671.1) and the reservations made by Switzerland.

⁷³ WEISSER, p. 72.

2.2. *Character of income*

Allocation of taxing rights mainly depends on the treaty characterization of income streams. Here again, Switzerland's DTAs mainly follow the structure of the OECD-MC and distinguish, inter alia, between income from immovable property (article 6 OECD-MC), business profits (article 7 OECD-MC), royalties (article 12 OECD-MC) and other income (article 21 OECD-MC).

2.2.1. *Cloud computing*

As mentioned before, cloud computing contains various services and may allow for access to shared networks of storage, servers and applications on the internet. Data-driven corporations deciding to outsource their IT solutions will have to pay a certain fee to cloud computing service providers. Depending on the specific service, an application service provider agreement (ASP) is usually concluded. In Swiss doctrine, the ASP agreement is described as a service agreement not falling under a specific classification (*Innominatvertrag*).⁷⁴

According to the view presented here, income derived from such services does not fall within the scope of article 6 OECD-MC since virtual storage rooms do not represent immovable property. This may even apply if the server(s) should be regarded as a fixed place of business. Of course, a different view would need to be taken if the physical data center would be rented out.⁷⁵

It is less clear, however, whether such income should qualify as royalties rather than business profits. According to the OECD Commentary, income from software transactions may be characterized as royalties, and research among the OECD member states has revealed that software rights are usually protected under copyright rules. In Switzerland, for example, computer programs are protected by copyright as explicitly stated in article 2 paragraph 3 CopA. Consequently, payments for the right to use software may fall within the scope of article 12 OECD-MC.⁷⁶ As royalties are paid for the use of intellectual property or rights to use it, article 12 OECD-MC does not apply to payments for alienation of all rights attached to intellectual property. Whether article 7 OECD-MC or article 13 OECD-MC applies in such cases, depends on the extent of the transferred rights.⁷⁷

Whether or not article 12 OECD-MC applies in the context of cloud computing, cannot be conclusively answered as a variety of services may be offered under cloud computing agreements. According to the writer's opinion, it needs to be analysed in each separate case which rights the cloud computing customer acquires under the specific arrangement. For example, where cloud computing services are limited to providing the customer access to an internet-based interface (thus, without entailing the transfer of additional works that are subject to copyright), the fees should rather fall within the scope of article 7 OECD-MC instead of article 12 OECD-MC.⁷⁸

⁷⁴ STRAUB WOLFGANG, *Cloud-Verträge – Regelungsbedarf und Vorgehensweise*, in: AJP 2014, p. 906.

⁷⁵ Cf. WEISSER, p. 225 et seqq.

⁷⁶ OECD Commentary 2017, art. 12 OECD-MC n. 12 et seqq.

⁷⁷ MÜLLER ANDREAS/LINDER THOMAS, in: Zweifel/Beusch/Matteotti (editors), *Kommentar zum internationalen Steuerrecht*, art. 12 OECD-MC n. 79.

⁷⁸ Cf. WEISSER, p. 235 et seqq. for further information.

2.2.2. *Personal data as payment for free online services*

“If you are not paying for the product, you are the product,” is a common sentence used to describe a business model where the consumed online services are funded by the proceeds of personal data. It is a form of data acquisition that various data-driven corporations have been making use of in past years. From an international tax perspective, the question arises whether and to what extent there is an allocation right for such *“proceeds”*.

Interestingly, the term *“proceeds”* is not defined in article 3 OECD-MC, even though it is frequently used. This is remarkable since profit allocation between a headquarter and its PE is based on the premise that there is any profit at all that could be allocated. Thus, a data-driven corporation that admits having a PE in a specific state could still argue that zero profit is to be allocated abroad, since the PE itself does not generate any proceeds by collecting data for its services (which from the point of view of the consumers are *“free”*).

According to the opinion presented here, the question whether and to what extent data may be considered as proceeds cannot be answered in general terms as data do not have a value per se (unlike, for example, bitcoins with a market value). For example, whereas patient records could have a value for pharmaceutical companies, logistic companies are more interested in information concerning warehouse management or geolocation data. Once the value of the data proceeds has been determined, it would need to be analysed whether they fall within the scope of article 21 OECD-MC.

IV. Transfer pricing

There are a lot of open questions when it comes to big data and transfer pricing. On one hand, there are various conceivable constellations of how data-related intercompany transactions can be designed. For example, MNEs may consider establishing a data company that centrally processes (raw) data that was collected group wide. In a second step, this (processed) data could be licensed or sold back to the group companies in various jurisdictions. On the other hand, valuation of data may be difficult since the value highly depends on the information content and the business purpose. This especially becomes problematic when the value of data is integrated in the product or service. There often is no market for specific data, which leads to the next question whether both external and internal data should be relevant for transfer pricing aspects.

It would extend the scope of this report to cover each conceivable question. Instead, the following section focuses on selected aspects that may become relevant for data-driven corporations.

In general

Switzerland does not have specific transfer pricing legislation, and there are no particular documentation requirements in this respect. Nevertheless, under general tax provisions (in particular, article 58 FDTA), related-party transactions must be at arm's length and commercially justified. The OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations as they read in July 2017 (OECD TP-Guidelines) are only a source of interpretation without binding force. Nonetheless, the DEMPE approach is constantly

followed by the Swiss tax authorities, which may become an important element when defining intercompany data transactions.⁷⁹

1. Assessment of functions and risks

1.1. Data activities as a contributor to DEMPE analysis

Application of data analytics and AI to data may provide critically valuable input within a value chain. With the use of big data, traditional value chains will become more interactive and more connected. The table below provides an example of how intercompany data activities may be classified in a DEMPE analysis.⁸⁰

Functions	Activities
Development	• Research activities, such as: • Definition of big data strategy • Analysis how to digitalize value chain • Search for data sources and systems for data collection • Drafts in connection with IT architecture or cloud computing • Development activities, such as: • Implementation of big data strategy including cloud computing services • Construction of IT architecture • Data collection
Enhancement	• Test runs in connection with IT architecture and data processing • Search for alternatives • Improvement of data quality and data sources • Improvement of tools and algorithms for data analytics
Maintenance	• Measures for keeping data pool up to date • Application management • Update of data storage, data processing and data analytics software
Protection	• Draft and implementation IT security concept • Implementation of data security measures • Licensing or accessing rights
Exploitation	• Decision making process regarding data exploitation (e.g., sale, licensing, processing data)

Figure 2: Data activities as a contributor to DEMPE analysis (cf. also SCHWARZ, p. 448).

As can be seen from the above information, the systematic focus of DEMPE is based on where value is created rather than on where the value creating activities have their effects. As the OECD's Inclusion Framework⁸¹ shows, the question is to what extent the DEMPE approach is suitable for data-driven corporations. From the author's point of view, the answer to this question is affirmative, as the numbers of data-driven corporations will

⁷⁹ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 352 et seqq. for further information (especially with regard to the question whether the OECD TP Guidelines should be applied statically or dynamically).

⁸⁰ Cf. SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 448.

⁸¹ With regard to Switzerland, it remains to be seen whether and to what extent Pillar 1 and 2 will be integrated in Swiss legislation and practice.

increase and, thus, the DEMPE analysis would become obsolete in the future.⁸² Further, the above information also shows that capital is not contemplated in the DEMPE framework. With regard to data-driven corporations, this, however, should not be neglected as set-up and maintenance of IT infrastructures could be associated with high costs.

1.2. Data activities as risk-taking functions

As there are a lot of open questions about legal ownership of data, big data strategies can also involve high risks. An area of exposure could be, for example, where data protection law introduces a right for individuals to have personal data erased. Of course, when talking about big data, usually a large volume of data is processed. Nonetheless, such claims should be adequately taken into account when defining transfer prices.

2. Data as hard-to-value intangibles

Due to the fact that there usually is no market for data, data could be identified as hard-to-value intangibles (HTVI) in specific cases. According to the OECD TP-Guidelines, the tax administration may consider *ex post* outcomes as presumptive evidence about the appropriateness of *ex ante* pricing arrangements.⁸³ According to the view presented here, there is no legal basis in Swiss legislation that would allow application of this kind of an approach. The OECD's concept is basically retrospective taxation instead of actual taxation.⁸⁴ In an intercantonal constellation, the Swiss Supreme Court explicitly stated that actual taxation should apply, provided that neither tax avoidance nor simulation exists.⁸⁵

V. Value-added tax (VAT)

1. In general

Swiss VAT is payable for goods or services supplied by businesses that are taxpayers for VAT purposes, for imported goods and for services received from abroad. Certain goods and services are exempt from VAT (e.g. financial services, real estate transactions and transfer of shares; cf. article 21 of the Federal Act on Value Added Tax [VAT Act]).⁸⁶ Exports and turnover generated abroad are not subject to Swiss VAT. Any legal entity (e.g., a subsidiary

⁸² Should the OECD's two-pillar journey reach its goal, the question arises whether and to what extent Pillar 1 may affect the DEMPE analysis. EconPol Europe (European Network for Economic and Fiscal Policy Research) expects that Pillar 1 will affect only 78 of the world's 500 largest companies (press release available at <https://www.econ.pol.eu/press_releases/2021-07-05> (last visited: 13 December 2021)).

⁸³ OECD TP-Guidelines, ciph. 6.192.

⁸⁴ Thus, Switzerland has not adopted the HTVI approach into its legislation (cf. OECD's questionnaire on the implementation of the HTVI approach in Switzerland available at <<https://www.oecd.org/ctp/transfer-pricing/harvi-monitoring-response-switzerland.pdf>> (last visited: 13 December 2021)).

⁸⁵ BGE 146 II 97; cf. also SCHWARZ, p. 457 et seqq.

⁸⁶ SR. 641.20.

or a branch) performing an income-producing commercial activity is required to register for and charge VAT if the total of supplies of goods, services and self-consumption worldwide exceeds CHF100,000 per annum (article 10 VAT Act). The current standard VAT rate is 7.7%.

Personal data as “payment” for the use of digital content is an economic reality. The question under which circumstances data-driven corporations are subject to Swiss VAT is twofold: On one hand, it needs to be analysed whether the digital product qualifies as a supply in the sense of article 3 lit. c VAT Act. On the other hand, data must qualify as consideration in the sense of article 3 lit. f VAT Act. The following will solely focus on the consideration aspect.⁸⁷

2. Data as consideration for VAT purposes

According to article 3 lit. f VAT Act, the term “*consideration*” means an asset that the recipient expends in return for receipt of a supply. Article 24 VAT Act provides that the tax is, in general, calculated on the consideration actually received. Further, for barter transactions, the market value of each supply is deemed to be the consideration for the other supply.

According to Swiss doctrine, whether or not data qualifies as consideration needs to be answered in the light of the principle of *competitive neutrality* as stated in article 1 para. 3 lit. a VAT Act. As mentioned before, a subjective evaluation rather than an objective evaluation must be made as data does not have a value per se. In this sense, it is argued that, in an individual case, data may qualify as consideration, particularly if (i) the received data has a monetary value for the specific company and (ii) there is a reciprocal (synallagmatic) relationship between the parties. A reciprocal relationship is not to be assumed if the digital service can also be used without providing its data or if the user did not consent to the use of its data.⁸⁸

There are various methods that could be used to determine the value of data. For example, according to a cost-based approach, the costs for collection, storage or maintenance could be evaluated. On the other hand, the value can be calculated based on future cash flow using a benefit-oriented approach.⁸⁹

VI. Tax accounting

1. Authoritative principle

As mentioned before, Swiss tax law generally follows the authoritative principle. This leads to the general rule that transactions that are permitted under Swiss commercial law must also be considered for Swiss income tax purposes. The question of how data and data-related transactions are treated from an accounting perspective may, therefore, become highly relevant for data-driven corporations. For example, whether or not data can be treated as a corporate asset that can be listed on the company's balance sheet may become crucial

⁸⁷ For further references cf. HUG THOMAS, Daten als mehrwertsteuerliches Entgelt?, in: zsis 3/2020 art. no. 11.

⁸⁸ HUG, p. 7 et seqq.

⁸⁹ HUG, p. 10.

for various tax aspects. Commercially permitted depreciation of data, for instance, could reduce taxable income. Further, if data is to be treated as a corporate asset, the question arises whether and to what extent non-compliant use of data should be reflected on the liability side of the balance sheet (breaches of data protection law provisions may serve as an example). If a company is confronted with a claim for cancellation of data, it may be obliged to make provisions in order to cover possible future liability. This in turn could have an impact on taxable income as provisions are expensed via the profit and loss statement (P&L).⁹⁰

Accounting treatment of data and data transactions has only rarely been discussed in Swiss doctrine so far, and there are a lot of open questions that, for the purpose of this report, cannot all be answered. The following is, therefore, limited to giving a brief introduction to the topic of whether and to what extent data can be counted as a balance sheet asset according to Swiss accounting provisions⁹¹ as provided in article 957 et seqq. CO.⁹²

2. General requirements

According to article 959 paragraph 2 CO, items must be entered on the balance sheet as assets if (i) due to past events they (ii) may be disposed of, (iii) a cash flow is probable (*wahrscheinlicher Nutzenzufluss*) and (iv) their value can be reliably estimated. Other assets may not be entered on the balance sheet.

Swiss accounting law is supported by the fundamental principle of *prudence* as stated in article 958c paragraph 1 CO. Thus, and in contrast to IFRS, Swiss accounting law does not follow the *true and fair view* or the *fair presentation concept*. Instead, article 958 paragraph 1 CO “only” provides that financial reporting is intended to present the economic position of the undertaking in such a manner that third parties can make a *reliable assessment* of it.

3. Data asset

3.1. Probable cash flow

The question whether or not collection of data may lead to a probable cash flow cannot be answered for all companies equally as the value of data depends on its information content. For example, health records may be useful for companies in the pharmaceutical industry but probably not for logistics companies. Further, raw data are usually not directly usable unless they can be sold as such. Therefore, the probability of cash flow is first and foremost a *subjective* evaluation, which, however, does not exclude the fact that an assessment cannot be made based on objective, measurable criteria (otherwise the evaluation would become a purely discretionary matter). Such criteria, for example, may be the condition,

⁹⁰ For further information, cf. SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 57 et seqq.; SCHWARZ, Daten bilanzieren?, p. 1; SCHWARZ ANGELICA MARIA, Bilanzierung von Daten, in: Springer Essentials, p. 11 et seqq.

⁹¹ For further information regarding the question how data is to be treated under IFRS, cf. SCHWARZ ANGELICA MARIA, Future Data Assets, Welchen Wert haben technische Daten in Bilanzen?, VDI-Thesen und Handlungsfelder, October 2021.

⁹² For further information also with regard to IFRS treatment (especially IAS 38), cf. SCHWARZ, p. 57 et seqq.

quality or availability of the data. Regarding the latter, it is to be noted that the sale of data that is also publicly available, is not likely to lead to a probable cash flow as they are accessible to everyone. This often concerns data provided by public authorities (e.g., since 2014 Switzerland has been following an open government data strategy). Nonetheless, a probable cash flow may still result from further development and analysis of this kind of data if this is intended by the company. Either way, a probable cash flow can only be assumed if the company specifically plans to exploit its data. The fact that a company is sitting on a pile of data does not automatically mean that it will turn a profit from the data if it does not have the expertise, purpose or IT equipment to analyse such volumes of data.⁹³

3.2. *At the disposal of the company*

The requirement that data must be at the disposal of the company does not necessarily postulate legal ownership. Instead, this prerequisite is to be understood as an *economic power* over the data, which can be determined based on criteria such as risk, opportunity, benefit, liability, etc. Further, in order for data to be considered at the disposal of the company, the company needs to have physical or virtual access to the data pool. However, it cannot be presumed that the data carrier itself must also be at the disposal of the company; otherwise data that is stored in an externally rented cloud could never be allocated to a data-driven corporation using this kind of a tool.⁹⁴

3.3. *Reliable estimation*

If the probability of cash flow is foremost a subjective evaluation, the question arises of how the value of data can be objectively estimated. According to the view presented here, the following distinction is to be made: On one hand, data that has been acquired from a third party has passed a market test (*derivative Daten*). In this case, the acquisition costs can serve as a reliable basis for estimation. On the other hand, a reliable estimation is more problematic for data that has been collected and processed by the company itself (*originäre Daten*). If a data-driven corporation wants to use the costs for establishment of a big data project, it first needs to analyse whether Swiss accounting law per se allows self-created intangibles to be listed on the balance sheet. Swiss accounting law does not explicitly prohibit inclusion of originally created intellectual property on the balance sheet. However, in contrast to development costs, future benefits from research costs are highly uncertain, which is why they usually are treated as expenses.⁹⁵

The above information shows that under certain conditions data can be treated as a balance sheet asset. If the requirements for including an asset on the balance sheet are met, it is necessary to include that asset on the balance sheet under Swiss accounting law. It is, therefore, quite surprising that even though it is indisputable that data are an important asset for data-driven corporations it is not yet common practice to include these kinds of assets on the balance sheet or report them in another way in the financial statements.

⁹³ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 149 et seqq.

⁹⁴ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 157 et seqq.

⁹⁵ SCHWARZ, Die handels- und steuerrechtliche Behandlung von Daten, p. 165.

Summary and conclusions

Article 20 of the Constitution of 1982 is related to the privacy of private life. In this article, there has been an amendment with the Constitutional Referendum in 2010, and this amendment was going to constitute the basis for some regulations to come into force later.

Regulations about fundamental rights and freedoms and protection of private life, as well as big databases, are mainly related to Turkish Civil Code No. 4741, Obligations Law No. 6098, The Turkish Commercial Law No. 6102, The Protection of Personal Data Law No. 6698, Intellectual and Artistic Works Law No. 5846, The Industrial Property Law No. 6769, Electronic Communications Law No. 5809, Electronic Commerce Law No. 6563, Internet Law of Turkey, Law No. 5651, and the Turkish Criminal Law No. 5237.

The rules of these regulations regarding databases will be briefly explained. The subject is handled together with the regulations on personal data, their protection, transfer, commercialization, and the penalty to be applied in case of failure to comply with the rules. According to article 9 of Law No. 6698, personal data cannot be transferred abroad without the explicit consent of the data subject. Thus, relevant social network providers are obliged to store data of their Turkish users in Turkey.

The primary regulation related to copyright in Turkey is the Law on Intellectual and Artistic Works No. 5846. In terms of international agreements and arrangements related to databases and their protection in Turkey, two types of legal databases are foreseen in Law No. 5846. One of them, also regulated in TRIPS, article.10(2) and WCT. article 5, is the original database. The other, defined in article 7 of EU Directive and article 8 of Law No. 5846 is the sui generis database.

In addition to national laws, international agreements are also regulations related to databases. The Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data of 28 January 1981, known as Treaty 108 of the Council of Europe, entered into force on 1 October 1985 and was ratified by Turkey with Law No. 6669 on 30 January 2016. The Convention entered into force on 1 September 2016.

The new digitalized type of international trade has enabled companies to generate a considerable profit without a physical presence in a country. However, in conventional regulation, domestic tax laws require the physical presence of taxpayers.

Income from data transfers as part of commercial activity constitutes the subject of income tax, while gross revenue is subject to value-added tax. The taxation of incomes from big data transfers contains problems related to the taxation of e-commerce. If transactions involve cross-border businesses, they become a concern for more than one government.

As a general rule, income obtained from data transfer as part of commercial activity is taxed according to the Income Tax Law No.193 when the real persons obtain it. If legal entities obtain that income, they are subject to Corporate Income Tax No. 5520. Gross sales

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revenue from data transfer is also subject to value-added tax according to Law No. 3065.

Payments for big data transfers within the scope of commercial activity are subject to VAT. It can be questioned whether the data transfer is a good or service delivery. However, data transfers cannot be accepted as the delivery of goods under the VAT Law. Data transfers may be considered service delivery.

Turkey has signed agreements on the prevention of double taxation on income with 85 countries so far. In general, article 6 of these agreements is on income from immovable property, article 7 on business profits, article 9 on associated enterprises, and article 12 on royalties.

In the agreements in question, in principle, there is no specific provision regarding how the income derived from the transfer of information obtained from databases would be taxed. It should be taken into account that most of these agreements are outdated. At the time these agreements were signed, databases did not exist or were not commercialized as they are today. In the current form of the agreements, the issue that needs to be addressed is which agreement clause would be considered for taxation of the income derived from the sale of the information obtained from big databases. In this context, the income derived from big databases should be considered as a business profit.

Specific transfer pricing rules are valid in Turkey as of 1 January 2007, under article 13 of the CIT Law No. 5520. According to the Communiqué, in determining the comparable value for intangible rights, the transferee of the intangible right and the assignee must be evaluated separately. However, from the point of DEMPE functions, there is no definition of the transferee who is creating the intangibles that do not receive their fair share of income in the Communiqué. Arms-length prices might be available if an abundance of data is used, and for intangibles, it is almost impossible to find any similar data for comparison.

As of 1 January 2018, persons who do not have residency, nor legal center or business center in Turkey, that provide services electronically to a real person who is not a VAT taxpayer, shall declare and pay VAT of this transaction in Turkey. As of 1 January 2019, a withholding tax rate of 15% was introduced for payments made to real persons regardless of whether they are taxpayers or not, and payments made to non-resident entities in Turkey. As effective 1 March 2020, a digital services tax came into force in Turkey with Law No. 7194. Companies may be subject to double taxation on digital advertising services' revenues with an overlapping scope between the withholding tax and the digital service tax.

The economic assets used for commercial activities are subject to depreciation, and their depreciation periods are determined in accordance with the Communiqué numbered 333 of Law No. 213. Those related to databases can be envisioned as data communication systems, intangible assets, or computer software. According to the regulations, it is not clear to what extent databases will be subject to depreciation.

1. Introduction: Legal background

The legal background applicable to big data transactions in Turkey is given in the following sections. The subject will be handled together with the regulations on personal data, their protection, transfer, commercialization, and the penalty to be applied in case of failure to comply with the rules.

Article 20 of the Constitution of 1982 of Turkey is related to the privacy of private life. According to the article, everyone has the right to demand respect for his/her private and

family life, and privacy of private or family life shall not be violated. In the article, there has been an amendment with the Constitutional Referendum in 2010, and this paragraph was added to it: “Everyone has the right to request the protection of his/her personal data. This right includes being informed of, having access to, requesting the correction and deletion of his/her personal data, and being informed whether these are used in consistency with envisaged objectives. Personal data can be processed only in cases envisaged by Law or by the person's explicit consent. The principles and procedures regarding the protection of personal data shall be laid down in Law.”

This amendment was going to constitute the basis for the Law of Protection of Personal Data No. 6698 to come into force later.

1.1. Turkish Civil Code No. 4741

Turkish Civil Code is the primary regulation for the protection of privacy. According to article 21, the person subject to the assault on his/her personal rights may claim protection from the judge against the individuals who made the assault. It's accepted that each assault against personal rights is considered contrary to the law unless the assent of the person whose personal right is damaged is based on any reason related to private or public interest and use of authorization conferred upon by the laws. The claimant may demand the judge to prevent assault, eliminate such threat, and determine unlawful consequences of the assault even though it is discontinued. Contracts concluded against personal rights are invalid.

1.2. Obligations Law No. 6098

Abolishing the former, t[h]e Turkish Code of Obligations No. 6098 became effective on 1 July 2012. Articles 27, 49, and 58 of the law are essential for protecting personal data. According to article 27, contracts concluded against personal rights are invalid.²

1.3. The Turkish Commercial Law No. 6102.

The new Turkish Commercial Law No. 6102 entered into force on 1 July 2012. According to article 1524 of the new law, as of 1 July 2013, capital stock companies are obliged to create a website; or if they already have it, they must allocate part of the website for information society services. The new law defines “information society” as a society with access to information. The following conditions apply to company websites:

1. a. all data relevant to the company and shareholders, minorities, creditors, and stakeholders have an interest b. documents and calls regarding General Assembly (GA) meetings c. year-end and interim financial statements and merger and division balance

² The Turkish Code of Obligations provides for a civil law claim for defamation whereby the claimant can ask for monetary compensation instead of blocking access to content. However, most claimants prefer to turn to the Internet Law's protection when such is provided. One of the reasons for this preference is that the Turkish Code of Obligations bans excessive enrichment through compensation while the Internet Law provisions allow claimants to apply for a direct access ban. SEE Deibert R., Palfrey J., Rohozinsky R, Zittrain J. (2010), editors, *Access Controlled*, The MIT Press, Cambridge, MA, p.352.

- sheets d. audit reports (reports of an auditor, operational auditor, special auditor, etc.)
 - e. valuation reports f. offers for exercising pre-emptive right g. announcements related to liquidation h. announcements related to the action for cancellation
- 2. Access to the website shall be available to everyone and shall be unrestricted to ensure the right to and the possibility of access.
- 3. The website shall provide the means for electronic GA and BoD meetings and electronic voting.
- 4. The website is a complete, visual, and electronic trade log.
- 5. The website has introduced the concept of stakeholder into Turkish Law.
- 6. The content uploaded on the website is kept there for at least six months from the upload date, or it is deemed not to have been uploaded. For financial statements, this period is five years.³

1.4. The Protection of Personal Data Law No. 6698.

Protection of Personal Data Law No. 6698 came into force on 7 April 2016. This Law sets forth certain new liabilities for the data supervisors who process the received personal data. Pursuant to articles 19 and 20 of the law, an Institution of Personal Data Protection shall be established. The Institution is established in conformity with the European Councils Agreement of Protection of Individuals in the Course of Automatic Data Processing numbered 108 and EU's Data Protection Directive numbered 95/45/EC, autonomous institutions with regard to its financial and administrative actions.

Processing of personal data is defined in the law as any operation performed upon personal data such as collection, recording, storage, retention, alteration, re-organization, disclosure, transferring, taking over, making retrievable, classification or preventing the use thereof, fully or partially through automatic means or provided that the process is a part of any data registry system, through non-automatic means.

According to article 9, personal data cannot be transferred abroad without the explicit consent of the data subject.⁴

It should also be noted that liabilities within the scope of the law should be considered together with the liabilities set forth by the E-Commerce Law No. 6563, and mutual solutions must be produced to satisfy the liabilities of both such laws.⁵

1.5. Intellectual property regulations

1.5.1. *Intellectual and Artistic Works Law No. 5846 and Sui Generis Right for Databases*

The primary regulation related to copyright in Turkey is the Law on Intellectual and Artistic Works No. 5846, published in the Official Gazette on 13 December 1951. There have been

³ PwC (2011), New Turkish Commercial Code – A blueprint for the future, p. 10.

⁴ Personal data may be transferred abroad without explicit consent of the data subject provided that one of the conditions set forth in the second para. of art. 5, the third para. of art. 6 exist and art. 9.

⁵ <http://www.admdlaw.com/about-the-turkish-law-on-protection-of-personal-data/#.X7q4eGgzaUk>

several amendments to Law No. 5846 since the year of enactment.⁶

It covers the moral and economic rights, on their products, of authors who create intellectual and artistic works and performers, phonogram producers that make the first fixation of sounds, producers that make the first fixation of films and radio-television organizations, the rules and procedures regarding transactions on such rights, and ways of legal recourse and sanctions.

Types of intellectual and artistic works defined in the law are i) literary and scientific works, ii) musical works, iii) works of fine arts, iv) cinematographic works, v) adaptations and collections, and vi) works made public and published.

Databases are regulated under the article titled “works made public and published”. According to article 6, intellectual and artistic products created by benefiting from another work but that are not independent of such work, are adaptations of databases obtained by the selection and compilation of data and materials according to a specific purpose and a specific plan, which are in a form that can be read by a device or in any other form (this protection can not be extended to the data and materials contained in the database). It may be emphasized that the concept of the database was used here for the first time in the Turkish legal system.⁷

Law No. 5846, as amended within the framework of the amendments introduced by Law No. 4630 in 2001, is generally in line with Directive 96/9/EEC. The imprisonment and fines stipulated to be applied in violation of all authority and rights regarding rights granted to the owner by law, are also valid for databases.

An additional article related to databases was added to the law in 2004. In this context, Additional article. 8, the maker of a database is defined as who has made qualitatively and/or quantitatively substantial investment in either creation, verification, or presentation of the contents shall have the right of permitting or prohibiting:

- a) Permanent or temporary transfer to another medium by any means and in any form,
 - b) Distribution or sale, rental, or communication to the public in any way,
- of all or a substantial part of the content of the database contents with the exceptions specified in this law and required by purposes of public security and administrative and judicial procedures. Term of protection granted to the maker of a database shall be 15 years from the date of being made public of the database. After every qualitative and quantitative addition, removal, or modification producing a substantial change in the contents of the database and requiring a new investment, the new database resulting from such investment shall qualify for its own conditions of protection. Acts violating copyright are regulated in articles 71 to 73.

On the other hand, there are some international treaties signed by Turkey to protect copyrights. These are as follows:

- *The Rome Convention*, in which the linked beneficiaries were organized into three groups, was signed in 1960. Accordingly, the first group is performing artists, the second linked rights holders, and the third group radio and television broadcasters. Administration of the Rome Convention is carried out by WIPO, and Turkey is a party since 2004.

⁶ -The Copyright Law of 8 May 1326 (1910), and any provisions of other laws contrary to the provisions of this Law are hereby revoked.

⁷ ŞENER, Yavuz Selim (2013) *Fikri Mülkiyet Hukukunda Dijital Veri Tabanlarının Korunması* (Protecting Digital Databases In Intellectual Property Law) Unpublished PhD Thesis, İstanbul, p. 8. <https://openaccess.iku.edu.tr/bitstream/handle/11413/1783/YavuzSelim%C5%9EenerDOKTez.pdf?sequence=1&isAllowed=y>.

- The Agreement on *Trade-Related Aspects of Intellectual Property Rights (TRIPS)* came into force in 1995, as part of the Agreement Establishing the World Trade Organization (WTO). Turkey became a party to the TRIPS Agreement while establishing the WTO.
- *The WIPO Copyright Treaty (WCT)*, adopted by 157 countries at the WIPO Diplomatic Conference in 1996, is a special agreement under the Berne Convention that deals with protecting works and their authors' rights in the digital environment. In addition to the rights recognized by the Berne Convention, they are granted certain economic rights. The treaty also deals with two subject matters to be protected by copyright: (i) computer programs, whatever the mode or form of their expression, and (ii) compilations of data or other material (databases).⁸ Since 2008, Turkey was one of the signatories.
- Along with the WIPO Copyright Agreement, another WIPO agreement, known internationally as *internet agreements*, is the *WIPO Performances and Phonograms Treaty*. Turkey, on the same date as the WCT, is one of the signatory parties since 2008.

In terms of these international agreements and arrangements related to databases and their protection in Turkey, two types of legal databases are foreseen in Law No. 5846. One of them, also regulated in TRIPS.article.10(2) and WCT. article 5 is the original databases. This type of database is defined in article 7 of Directive and article .6/1,b.11 of Law No. 5846. The other, defined in article 7 of Directive and Additional article. 8 of Law No. 5846 is *sui generis* databases. Although there is no creativity feature of the content of Law No. 5846, it may be possible to benefit from *sui generis* protection if their collection and presentation to the public takes place through substantial investment, in terms of Add. article 8.⁹ To prohibit transmission of the contents of the databases to a medium, some *sui generis* rights, similar to the neighbouring right given to phonogram maker and broadcaster, are granted to organizations.

1.5.2. The Industrial Property Law No. 6769

Industrial Property Law No. 6769, entered into force on 10 January 2017, covers all industrial property matters and repeals Decree-Laws No. 551, 554, 555, and 556, relating to patents, industrial designs, geographical indications, and trademarks.¹⁰ The new Law regulates all industrial property rights in a single code.

According to article 55, titled Design and product, product means any industrial or handicraft item, including parts intended to be assembled into a complex product, products like packaging, presentations of more than one object perceived together, graphic symbols and typographic typefaces, but excluding computer programs. According to article 82, computer programs shall not be considered inventions.

1.6. Electronic Communications Law No. 5809

The objectives of the Electronic Communications Law No. 5809, published in the Official Gazette on 10 November 2008, are mainly to create effective competition, to ensure the

⁸ For detail SEE <https://www.wipo.int/treaties/en/ip/wct/>

⁹ ŞENER, Yavus Selim (2013), p. 14.

¹⁰ https://www.wipo.int/news/en/wipolex/2017/article_0004.html

protection of consumer rights, and to promote the deployment of services throughout the country.

According to the law, the Information and Communication Technologies Authority (The Authority),¹¹ which is the main regulatory body for telecommunications in Turkey, shall be competent to make necessary arrangements and supervisions on the rights of subscribers, users, consumers, and end-users as well as the processing of personal data and protection of privacy (article 6/1)

The Authority, considering factors such as requirements of the sector, international regulations, and technological developments, shall be entitled to impose legislation and oriented obligations on the operators, among others, to protect personal data and privacy. Also, The Authority is entitled to determine the procedures and principles towards the processing of personal data and the protection of its privacy regarding the electronic communications sector (article 51).

1.7. Electronic Commerce Law No. 6563

The *Regulation of Electronic Commerce Law* No. 6563 entered into force on 1 May 2015.¹² Legal entities or real persons residing in Turkey or abroad, wishing to send commercial electronic messages to the recipients located in Turkey and the intermediary service providers who initiate the commercial electronic message transmission at the service provider's instructions, are within the scope of the regulation. It meets commercial communication regulations, liabilities of service providers and intermediary service providers, agreements made via electronic communication devices, and obligations to inform concerning electronic commerce and applicable sanctions. Law No. 6563 is regulated based on the e-Commerce Directive 2000/31/EC of the European Union and brings with it parallel arrangements.¹³ Article 10 of the law regulates the obligations of the service provider and intermediary service providers concerning the protection of personal data. They are liable for the preservation and protection of the personal information of the recipient, which is obtained due to the transactions. Regulation consists of some provisions aimed to protect purchasers such as informing and hiding of personal data. There is also a new provision, again in support of purchasers, intended to annihilate discomfort of purchasers, caused by frequency of commercial electronic messages which seem as if they are a method of easy marketing.¹⁴

The intermediary service provider is defined in article 2 entitled "Definitions" of the law as: "natural or legal person that provides an electronic environment where others can conduct financial and commercial activities." Some court decision establishes responsibility

¹¹ The Telecommunications Authority established with the Law No:4502 on 27 January 2000 in order to perform the regulatory and supervision duties in the electronic communication sector was restructured with the Electronic Communication Law No. 5809 on 10 November 2008 and changed its name to Information Technology and Communication Authority (BTK). See: <http://www.ausder.org.tr/en/membership/all-members/btk-bilgi-teknolojileri-ve-iletisim-kurumu>

¹² Published at the Official Gazette on 1 November 2014.

¹³ KILINC LC, <https://www.kilincclaw.com.tr/en/legal-responsibility-of-intermediary-service-providers/>

¹⁴ KORKMAZ Ezgi, YAVUZER Fatih, The Assessment of the Law of Electronic Commerce Regulation No. 6563, http://www.goksusafisik.av.tr/Articleletter/2015_Summer/GSL_Articleletter_2015_Summer_Article1.pdf [Access date : 15 September 2020]

for the commercial activities carried out in the electronic environment offered by intermediary service providers.¹⁵

It is mentioned that the protection provided by some articles of Law No. 6563, which aim at protecting purchasers concerning personal data, has already been included by the general provision of Turkish Criminal Law and Obligation Law.¹⁶

1.8. Internet Law of Turkey, Law No. 5651

Regulation of Internet Broadcasts and Prevention of Crimes Committed through Such Broadcasts Law No. 5651, widely known as the Internet Law of Turkey, entered into force on 23 May 2007. The law mainly regulates three areas: i) The legal, criminal and administrative liability of Internet actors, such as content providers, hosting providers, and public use providers (articles 4, 5, 6, 7); ii) The access restriction procedure for certain crimes, and the further details for combating such crimes, especially in cases of emergency (article 8 and 8/A); iii) The notice and takedown procedures, the removal of content and blocking access to such content, in cases of violation of personal rights, due to Internet content (article 9 and 9/A)¹⁷.

In article 2, titled *definitions* of the law, information is defined as the “*meaningful form of data*” and data is defined as “*any value that can be processed by the computer*”. “Social network provider” is also defined as real or legal persons that enable users to create, view, or share content such as text, image, sound, and location on the Internet for social interaction.

With Law No. 7253 published in the Official Gazette on 31 July 2020, some amendments, known as social media regulations, have been made. Amendments regarding social network providers entered into force as of 1 October 2020.

According to Additional article 4, the foreign or local social network providers with over one million daily visits from Turkey shall submit biannual reports, written in Turkish, featuring statistical and categorical information regarding the implementation of decisions to remove and/or block content. The reports on applications shall also be published on the social network provider’s own website, with all personal data removed.

Social network providers, which are based abroad and have more than one million daily access to their services from Turkey shall designate at least one representative in Turkey to deal with requests and notifications that are sent by the Information and Communications Technologies Authority (ICTA) as well as the judicial and administrative authorities and to respond to the applications made by persons in accordance with Law No: 5651.

They must ensure fulfilment of other obligations under Law No: 5651 and inform the

¹⁵ The decision of the Supreme Court Assembly of Civil Chambers No. E. 2013/11-1138 K. 2014/16. In the decision, it was stated that “the fault of the intermediary service provider should be proved in order for the emergence of compensation liability due to the violation of the author’s right to distribution. With this aspect, it provides a presumption for the responsibility of the intermediary service provider according to the E-Commerce Law article 9/1 and it is stated that the intermediary service providers have no obligation to check the content offered by the users on the website.” <https://www.kilinclaw.com.tr/en/legal-responsibility-of-intermediary-service-providers/>

¹⁶ KORKMAZ E., YAVUZER, F. Assessment of Law Of Elecktronic Commerce Regulation No. 6563, 13 GSI Articletter 7 (2015).

¹⁷ KAYA, M.B., The regulation of Internet intermediaries under Turkish law: Is there a delicate balance between rights and obligations? Computer law & security review 32 (2016), p. 763. 759–774.

Authority about the identity and contact information of this representative and publish the appointee's contact information on the website in an easily seen and directly accessible way. If the appointee is a real person as the representative, s/he must be a Turkish citizen.

Domestic or foreign social network providers, which have more than one million daily access to their services from Turkey, shall be obliged to respond to the applications within the scope of articles 9 and 9/A of Law No: 5651 for the contents that violate the personal rights or right to privacy within 48 hours at the latest.

Domestic or foreign social network providers, which have more than one million daily access to their services from Turkey, shall inform ICTA every six months, by reports containing statistical and categorical information on the implementation of decisions notified to them to remove content and/or to block access and imply the other applications. The first one of these reports will be submitted to ICTA in June 2021.

Obligations regarding data localization have been imposed on domestic or foreign social network providers, which have more than one million daily access to their services from Turkey. Thus, relevant social network providers are obliged to store data of their Turkish users in Turkey.

Another requirement for the internet service provider (ISP) is the retention of traffic information. ISPs are required to keep traffic data for one year. They should ensure the accuracy, integrity, and confidentiality of such information and the file integrity values of the created data, together with a time stamp. In parallel with the traffic retention requirement imposed on the ISPs, a similar liability is imposed on the hosting providers, to retain the traffic information for a year.

1.9. The Turkish Criminal Law No. 5237.

This section concerning the Turkish Criminal Law will discuss the definition of crimes and penalties on the privacy of private life, the protection of trade secrets, and offenses in the field of data processing systems.

1.9.1. Protection of privacy life

Privacy of private life is protected mainly by the Law of the Turkish Criminal Law (TCL) No. 5237. Actions in breach of personal data privacy regulations are subject to articles 135 to 140 of this law.

According to article 134, any person who violates the secrecy of private life is punished with imprisonment from one to two years. In case of violation of privacy by use of audio-visual recording devices, the minimum limit of punishment to be imposed may be increased onefold. Any person who discloses audio-visual recordings relating to the private life of individuals are sentenced to imprisonment from two to five years. In case of commission of this offense through press and broadcast, the same penalty will be imposed.

Recording of personal data illegally is regulated in the following article. Any person who unlawfully records the personal data is punished with imprisonment from one to three years.

Any person who unlawfully delivers data to another person or publishes or acquires the same through illegal means, is punished with imprisonment from two to four years.

Article 138 of Law No. 5237 is related to the destruction of data. In case of failure to

destroy the data within a defined system despite the expiry of the legally prescribed period, the persons responsible for this failure are sentenced to imprisonment from one to two years. If the subject of the crime is data that needs to be eliminated or destroyed in accordance with the provisions of the Criminal Procedure Code, the penalty to be imposed is increased by onefold.

Excluding recording of personal data, unlawful delivery or acquisition of data, and destruction of data, the commencement of investigation and prosecution for the offenses listed above is bound to the complaint.

1.9.2. Protection of trade secret

The offense of disclosure of trade secret information or documents is the subject of TCL. According to article 236, titled disclosure of business secrets, banking secrets, or information relating to customers, the definition and punishment of the offense of disclosure of trade secrets is as follows:

1) Any person who delivers information or documents he holds by virtue of office about the customers, discloses business secrets or banking secrets, is sentenced to imprisonment from one to three years, and is also imposed a punitive fine up to five thousand days upon complaint. In case of delivery or disclosure of this information or documents to unauthorized individuals by the persons who unlawfully acquired such information/documents, the offender is punished according to the provision of this subsection.

(2) Provisions of the first subsection are also applicable for the information relating to scientific research or discoveries or industrial practices.

(3) Punishment to be imposed is increased by one-third in the disclosure of these secrets to the foreigners or their personnel domiciled outside of Turkey. In that case, no complaint is sought.

(4) Any person who leads another person to disclose the information or documents within this article's scope by using force or threat is punished with imprisonment from three to seven years.

1.9.3. Offenses in the field of data processing systems

Offenses in the field of data processing systems are also regulated in Law No. 5237. All cyber crimes were organized under the heading *Crimes Committed in the Field of Informatics* between articles 243 and 245. These crimes are access to the data processing system (article 243), improper use of bank or credit cards (article 244), hindrance or destruction of the system (article 244), and deletion or alteration of data, Imposition of Security Precautions on Legal Entities (article 245).

1.10. International agreements

1.10.1. Treaty No.108

Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data of 28 January 1981, which is known as Treaty 108 of Council of Europe, entered into force

on 1 October 1985, and ratified by Turkey with Law No. 6669 on 30 January 2016. Convention entered into force on 1 September 2016.

Following the ratification of the Convention, the “Additional Protocol to the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data regarding Supervisory Authorities and Trans-border Data Flows” dated 8 November 2001, has been published in the Official Gazette on 24 May 2016. The Convention protects the right to privacy of individuals, taking account the increasing flow across frontiers of personal data undergoing automatic processing.

The Turkish Personal Data Protection Authority published an essential decision regarding data transfer abroad based on Convention No. 108 on 22 July 2020.¹⁸ In summary, the Authority stated that the personal data transfer regulation stipulated in article 9 of Law¹⁹ No. 6698 is compatible with Convention 108. However, it also stated that “personal data cannot be transferred abroad without the explicit consent of the data subject; however, Personal data may be transferred abroad without the explicit consent of the data subject provided that one of the conditions set forth in the second paragraph of article 5 and the third paragraph of article 6 exists and that; (a) sufficient protection is provided in the foreign country where the data is to be transferred, (b) the controllers in Turkey and in the related foreign country guarantee a sufficient protection in writing and the Board has authorized such transfer, where sufficient protection is not provided.”

1.10.2. *Convention for the Protection of Human Rights and Fundamental Freedoms*

The European Convention on Human Rights (ECHR)²⁰ entered into force on 3 September 1953. Article 8 of the Convention is related to the right to respect for private and family life. According to the article, everyone has the right to respect for his private and family life, his home, and his correspondence. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary for a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others. Turkey approved it on 18 May 1954 and became one of the founding members of the EU Council. Turkish Law and court judgments are also subject to the European Convention on Human Rights and are bound by the judgments of the European Court on Human Rights.

¹⁸ For details Summary of the Decision of the Personal Data Protection Board dated 22 July 2020 and No. 2020/559 regarding “the transfer of personal data abroad on the basis of Convention No. 108” SEE: <https://www.kvkk.gov.tr/Icerik/6812/2020-559>

¹⁹ Pursuant to this art., in the event that adequate protection is not provided in the country to which personal data to be transferred, such data may be transferred abroad without explicit consent of the data subject upon the existence of commitment for adequate protection in writing by the data controllers in Turkey and authorization of the Personal Data Protection Board (Board), SEE <https://www.kvkk.gov.tr/Icerik/6730/Public-Announcement-On-Binding-Corporate-Rules>.

²⁰ Formally Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms.

Part One: Basic principles: Character, source, and nexus

1.1. General overview

The general information on specific laws relating to data transactions, such as The Protection of Personal Data Law No. 6698, Electronic Communications Law No. 5809, Electronic Commerce Law No. 6563, or Internet Law of Turkey, Law No. 5651 is given in the previous section. Some tax regulations use the definitions made in these laws, such as the example of the Communiqué of Law No. 213, numbered 464. In the Communiqué, intermediary Service Providers are defined as it is in Electronic Commerce Law No. 6563

1.2. Character

Income from data transfers as part of commercial activity constitutes the subject of income tax, while gross revenue is subject to value-added tax. The taxation of incomes from big data transfers contains problems related to the taxation of e-commerce. If transactions involve cross-border businesses, they become a concern for more than one government.

1.3. Source

As a general rule, income obtained from data transfer as part of commercial activity is taxed according to the Income Tax Law No.193 when the real persons obtain it. If legal entities obtain that income, they are subject to Corporate Income Tax No. 5520. Gross sales revenue from data transfer is also subject to value-added tax according to Law No. 3065.

1.4. Nexus

Regulations concerning revenues from immovable property (rental income) are provided in article 70 of Law No. 193. In this context, prospecting, operating and franchise rights, and licenses, patent certificate (from the lease of the certificate of appeal by its inventors or legal heirs arising earnings are considered as self-employment earnings.), trademark, trade name, all kinds of technical drawing, pattern, model, plan, cinema and television films, audio and videotapes, a secret formula with knowledge of an experience in industry and trade and science or rights over a manufacturing process, such as the right to use or the right to use (the material and equipment costs required for the exercise of the rights are also to be considered immovable property income.) are considered as part of that income. As it will be noted, there is no provision regarding databases in the regulation.

According to article 1 of the VAT Law, deliveries of goods and services deemed commercial, agriculture, industrial, or self-employment activities and the importation of goods and services will be subject to VAT payment. In this context, payments for big data transfers within the scope of commercial activity are subject to VAT. It can be questioned whether the data transfer is a good or service delivery. However, data transfers cannot be accepted as the delivery of goods under the VAT Law. Data transfers are considered service delivery.

If some digital service providers are residents abroad, there are special regulations regarding payments made to them. Information about these will be given in the following special regulations section.

Part Two: Application of treaty principles

2.1. General overview

Turkey has signed agreements on the prevention of double taxation on income with 85 countries so far. In general, article 6 of these agreements is on income from immovable property, article 7 on business profits, article 9 on associated enterprises, and article 12 on royalties.

2.2. Detailed comments

It should be noted that in the agreements in question, in principle, there is no specific provision regarding how the income derived from the transfer of information obtained from databases would be taxed. At this point, it should be taken into account that most of these agreements are outdated. At the time these agreements were signed, databases did not exist or were not commercialized as they were today. In the current form of the agreements, the issue that needs to be addressed is which agreement clause would be considered for taxation of the income derived from the sale of the information obtained from big databases. In this context, the income derived from big databases should be considered as a business profit.

For instance, advertisers pay to be published to users of a particular website. These ads, called banner advertisements, are small graphic images on a webpage. These ads fee is determined by the number of times they appear on the website and sometimes the number of their clicks. These are commercial activities and considered as commercial income within the scope of article 7 of the agreements.²¹

In a Council of State decision,²² "income from services such as data access services, private or high-value data deliveries, or from information provision services is considered commercial income. Because the income derived from payments in return for the transfer of data collected by data line subscription, is made by a company established in the UK without representative or place of business in Turkey, it is commercial income. The payments made to the foreign corporation are not considered as royalties because they correspond to the information purchased."

It is stated in agreements that if royalty income is obtained within the commercial income scope through a permanent establishment or fixed base, it would be taxed as commercial income. For instance, according to article 12 titled Royalties of the agreement signed between Turkey and Mexico in 2013, the term of royalties as used payments of any kind received as consideration for a) the use of, or right to use, any patent, trademark

²¹ YALTI, Billur (2003), Elektronik Ticarete Vergilendirme, Der Yayınları, p. 71-72.

²² DŞ.4.D.,E.1996/1456,K.1996/3932.

design, or model, plan, secret formula or process, b) the use of, or the right to use any industrial, commercial or scientific equipment, c) the supply of information concerning industrial, commercial or scientific experience, d) the use or the right to use, any copyright of literary, artistic or scientific work, including cinematograph film and recordings or tapes for television or radio broadcasting. If the beneficial owner of royalties, being a resident of a contracting state in which the royalties arise through a permanent establishment situated therein or performed in that other state independent personal services from a fixed base situated therein and the right or property in respect of which the royalties are paid is effectively connected with such permanent establishment or fixed base, the provision of article 7, business profit, as the case may be, shall apply.

Part Three: Transfer pricing

Specific transfer pricing rules are valid in Turkey as of 1 January 2007, under article 13 of the CIT Law No. 5520. The regulations under article 13 follow the arm's-length principle definition of the OECD. It is stated in this article that "Arm's length principle means that the price or consideration charged for the purchase or sale of goods or services between related parties should be the price or consideration which would have been occurred in the absence of such a relationship between them." The concept of a related party is broadly defined under article 13.

Transfer pricing implementation methodology is included under the CITL and the related communiqués.

3.1. Application of transfer pricing principles

In the Communiqué, intangible rights are defined as motion pictures, films, and tapes used in broadcasting any literary, artistic, scientific copyright or any kind of patent, trademark, pattern or model, plan, the privilege of using the secret formula or production method or knowledge based on industrial, commercial, scientific experience, and as the right to use industrial, commercial and scientific equipment. In other words, intangible rights are industrial rights such as patents, trademarks, trade names, designs or models, the right to use assets and also cover the property rights of literary and artistic works, commercial know-how, and commercial secrets. The price of the transaction of goods or services, including intangible rights between related parties, will be determined according to the arm's length principle. In this context, the Communiqué does not contain a precise regulation on the use of big data and royalties.

With the adoption of DEMPE functions, the OECD contemplates focusing on entities that may not be legal owners of the intangibles but have made significant contributions to creating the intangibles that do not receive their *fair share* of income. According to the Communiqué, in determining the comparable value for intangible rights, the transferee of the intangible right and the assignee must be evaluated separately. However, there is no clear definition of the transferee in the Communiqué. Arms-length prices might be available if an abundance of data is used, and for intangibles, it is almost impossible to find any similar data for comparison.

Part Four: Special regimes

4.1. General overview

This section will focus on digital service tax, VAT responsibilities for sales made to residents from abroad, and taxation of advertising payments made by residents to foreigners.

4.2. Digital Service Tax

As effective of 1 March 2020, a digital services tax came into force in Turkey with Law No. 7194.²³ According to the regulation, the revenue obtained from the following services offered in Turkey is subject to digital service tax:

a) All kinds of advertising services offered in the digital environment (including advertising control and performance measurement services, services such as data transmission and management related to users, and technical services for advertising presentation).

b) With the sale of any audio, visual or digital content (including computer programs, applications, music, video, games, in-game applications, and the like) in digital media, these contents can be listened to, watched, played, or recorded on electronic devices or used in these devices.

c) Providing and operating services of digital environments where users can interact with each other (including services offered to sell or facilitate the sale of a good or services among users).

Revenue obtained from intermediary services provided by digital service providers in the digital environment for the services mentioned above is also subject to digital service tax.

The submission of service in Turkey is defined as services that should be offered in Turkey, benefited from the services served in Turkey, assessed or realized for people in Turkey. The meaning of assessment is that payments for services should be made in Turkey; if payments are made abroad, they should transfer to accounts of the payee or separated from their profit.

4.2.1. Taxpayers

Taxpayers are those who provide digital services, being full or limited taxpayers in terms of Personal Income Tax Law No. 193, or Corporate Income Tax Law No. 5520. In case of taxpayers with limited liability, whether or not such activities are realised through the workplace or through representatives in Turkey, does not affect their digital service tax liability.

If the taxpayers do not have residency, place of business, or legal and business centers in Turkey, for securing tax payments, the Treasury and the Ministry of Finance may hold responsible the parties of transactions and intermediaries of processing to pay taxes.

²³ The General Communiqué on the Digital Service Tax²³, which is effective from 1 March 2020, has been published in the Official Gazette dated 20 March 2020. The Communiqué introduces explanations, procedures and principles regarding the implementation of the digital service tax.

4.2.2. Exemption

The law provides exemptions from the digital service tax by taking into global account revenues and the relevant parties' revenues earned in Turkey. Digital service providers with revenues below 20 million Turkish Liras²⁴ earned in Turkey or revenues under EUR 750 million (or the Turkish lira equivalent in foreign currency) earned globally during the previous fiscal period, will be exempt from digital service tax. If the taxpayer is a member of a consolidated group in terms of financial accounting, the group's total revenue regarding the services that are subject to the tax is taken into account in the application of these limits. Compared to the domestic thresholds of European countries, for example Austria's threshold of \$28 million and Italy's threshold of \$ 6.1 million – Turkey's threshold is relatively low. This could result in more companies being subject to the DST in Turkey than in other jurisdictions.²⁵

If both of the limits are exceeded within the relevant accounting period, the exemption expires, and the digital service tax obligation begins as of the fourth taxation period following the taxation period in which the limit was exceeded.

If any of the revenues are below those limits during two consecutive accounting periods, tax exemptions start again from the following accounting period.

For instance, Entity (A), which is not a member of a consolidated group in terms of financial accounting, operates and enables users a digital environment where they can interact with each other, and provides digital media advertising during the 2019 accounting period. Suppose (A) has revenue of worldwide 740 million and 28 million TL in Turkey. In that case, this business will be exempt from digital service tax as of 1 March 2020 since its worldwide revenue does not exceed 750 million Euros in the 2019 accounting period.

The revenue obtained from the following services performed in the digital environment is exempt from the digital service tax. The revenue received from these services is not taken into account in determining those limits:

- a) Services such as mobile electronic communication services for which Treasury shares are paid within the scope of Additional article 37 of the Telegram and Telephone Law No. 406.
- b) Services subject to the special communication tax within the scope of article 39 of the Expenditure Tax Law No. 6802.
- c) Services within the scope of article 4 of the Banking Law No. 5411.
- ç) Sales of products created as a result of R&D activities in R&D centers defined in article 2 of the Law No. 5746 and services offered exclusively for these products.
- d) Payment services within the scope of article 12 of the Payment and Securities Settlement Systems, Payment Services, and Electronic Money Institutions Law No. 6493.

4.2.3. Calculation of tax base

The DST base is the revenue obtained from the services that are subject of the tax in the monthly taxation period. Any deduction is allowed from the tax base under the name of

²⁴ Approx. \$ 2,5 million as of 1 November 2020.

²⁵ Mattias Cruz, *Turkey's DST creates worry and double taxation issues*, International Tax Review, [<http://web.a.ebscohost.com/ehost/detail/detail?vid=1&sid=a81edd1e-6dbd-49fe-b8ad-164ac09994eb%40sessionmgr4006&bdata=Jmxbmc9dHlmc2loZT1laG9zdC1saXZl#AN=141277104&db=bsu>]

expense or cost. Payable tax may be written off while determining net income that would set the basis of income and corporate tax.

4.2.4. *Tax rate*

The tax rate is 7.5% of the gross revenue, which is the tax base. No deduction is made from the tax amount calculated. The digital service tax shall not be separately indicated in invoices and the documents considered as invoices. It is mentioned that Turkey's DST is not only higher but broader than the DST enacted by some other countries. For instance, it applies to digital content sales, which France's DST excludes, and eliminates other exemptions in the French legislation, such as revenue from information gathered by sensors.²⁶

4.2.5. *Taxation period and tax declaration*

The taxation period for the digital service tax is the monthly period of a calendar year. Taxpayers and those responsible for withholding digital service tax will declare and pay such taxes to the Turkish tax authorities until the last day of the following month.

According to the Communiqué on Application of Digital Service Tax No. 1, before submitting their first digital service tax declaration, the service providers must fill out a form by visiting Revenue Administration's dedicated web page to DST.²⁷ Upon approval of the completed form, a user code and password will be provided to the taxpayer for the operations to be held through the Internet Tax Office. The service providers who have "Special VAT Liability for Electronic Service Providers", may use their existing user codes and passwords.

4.2.6. *Measures for securing payment of DST and Access Ban Procedure*

Article 7 Law No. 7194 introduces a significant sanction for the digital service providers if they fail to fulfil their taxpayer duties, resulting in their digital services' access ban.

Suppose digital service providers or their authorized representatives fail to submit tax declarations and fulfil their payment obligations about taxes in the scope of Tax Procedural Law No. 213. In that case, the Tax Office is authorized to levy the DST and may send notices via official service, electronic mail or any other communication media, using the information obtained from communication tools on websites, field names, IP addresses and similar sources, to the digital service providers, or their authorized representatives in Turkey, and such cases shall be announced through the website of the Revenue Administration.

In case the tax obligations are not fulfilled within thirty days after the announcement, the Ministry of Treasury and Finance (MTF) shall decide for implementation of an access ban on the services provided by these digital service providers until the tax obligations are satisfied. The said decision will be sent to the ITCA regulated by Law No. 5809, for notification to the access providers. The access providers may take the necessary actions

²⁶ Alex M. Parker, Turkey Enacts 7.5% Digital Services Tax, <https://www.law360.com/tax/articles/1227913>.

²⁷ www.digitalservice.gib.gov.tr.

within twenty-four hours after the notification of the access ban decision.

With Law No. 7061, which became effective on 11 November 2017, MTF is authorized to ensure tax security in electronic commerce carried out by the electronic commerce environment for economic and commercial activities belonging to service providers and/or others. Real and legal person intermediary service providers were informed about their commercial activities.

We may conclude that the cross-country aspect of the digital economy in the solution of these one-way tax practices seems insufficient.²⁸

4.3. The Law No. 7061 about Tax Security in Electronic Commerce

Law No. 7061, published in the Official Gazette on 5 December 2017, made some significant amendments regarding e-commerce transactions at the Fiscal Procedure Law No. 213, and the VAT Law No. 3065.

4.3.1. Amendments to the Fiscal Procedure Law No. 213

According to amendments regarding Law No. 213, the MTF is authorized to ensure tax security in electronic commerce transactions carried out by real and legal persons. MTF may impose an obligation on the real and legal person intermediary service providers to notify their commercial activities. The authorization of MTF also includes:

- to determine the content, format, standard, duration, and method of notification,
- to determine notification's contents by business volume, sector, taxpayer groups, purchase-sale amount, types of goods and services subject to purchase and sale,
- to obligate intermediary service providers to obtain the information subject to the notification regarding others' economic and commercial activities,
- to impose the obligation to preserve and submit the information and notifications within the scope of this article in electronic form and determine other procedures and principles regarding implementation.

4.3.2. Amendments to the Law No. 3065

The amendments made in Law No. 3065 were related to the persons who do not have residency, legal center or business center in Turkey but provide services electronically to a real person who is not a VAT taxpayer in Turkey. The detail of the amendments will be given in section 7 of this report.

²⁸ Mutlu, C.K., Digital Service Tax: An Assessment Under The New Regulations In Turkey, INTERNATIONAL AEGEAN SYMPOSIUMS ON SOCIAL SCIENCES & HUMANITIES II Proceeding Book, Editor K.S. ÇEKEN, 18 – 19 September 2020, p.33.

4.4. Withholding Tax for Online Advertising Services, Presidential Decree No. 476

In paragraph 7 of article 11 of Fiscal Procedure Law No. 213, added in 2016,²⁹ the Council of Ministers (later President) has been given the authority to oblige parties or intermediaries in an electronically taxable transaction, to withhold tax.

With the Presidential Decree No. 476, published in the Official Gazette dated 19 December 2018, a new obligatory withholding tax is introduced to advertising services provided online.

As of 1 January 2019, payments made to the providers of online advertising services or to those who act as intermediaries for the provision of this service shall be subject to withholding tax at the following rates:

- 15% for payments made to real persons regardless of whether they are taxpayers or not³⁰
- 15% for payments made to non-resident entities in Turkey³¹
- 0% for payments made to corporate taxpayers that have full liability in Turkey³²

Withholding tax responsibility is independent of the digital service tax, which is regulated with Law No. 7194. However, with an overlapping scope between the withholding tax and the digital service tax, companies might be subject to double taxation on digital advertising services' revenues.

Alongside the withholding tax obligation, it is stated that Turkey has introduced the concept of a permanent electronic establishment (PE). Based on the proposed definition of the electronic PE, intermediaries involved in the supply of goods and services and/or the collection of payment, as well as the purchasers of goods and services, could be liable for the payment of relevant withholding taxes.³³

4.5. Communiqué on the Electronic Commerce Information System and Notification Obligations

The Turkish Ministry of Customs and Trade also published a Communiqué on the Electronic Commerce Information System and Notification Obligations. The Communiqué was published in the Official Gazette and entered into force on 11 August 2017.³⁴

The Communiqué applies to service providers in their electronic commerce platforms, intermediary service providers, and local service providers that do not provide services in

²⁹ Law 6745 published in the Official Gazette dated 7 September 2016.

³⁰ Within the scope of art. 94 of the PIT No. 193. In this regard, public administrations and organizations, state-owned enterprises, trade companies, joint ventures, associations, foundations, economic enterprises of associations and foundations, cooperatives, investment fund managers, tradesmen and self-employed, who are obliged to declare their real income, some agricultural income owners are responsible for this withholding tax.

³¹ Within the scope of art. 30 of the CIT No. 5520.

³² Within the scope of art. 15 of the CIT No. 5520.

³³ Jones, Seabrook, Sciliberto and Jones (2018), Taxation of digital economy: unilateral measures, Tax Journal, Issue 1389, 2 March 2018, p. 13.

³⁴ This Communiqué was issued according to art. 11 of the Regulation of Electronic Commerce Law No. 6563.

Turkey but enter into a contract or receive orders through an intermediary service provider located in a foreign country.

It is stated in the Communiqué that under the supervision of the Ministry of Customs and Trade, an Electronic Commerce Information System (ETBIS), a mandatory central registration system for e-commerce activities, was established as of 1 November 2020.

Service providers operating their own e-commerce platforms must notify the place of manufacture, warehouse addresses, and the intermediary service providers' domain names in cross-border e-commerce activities. Besides banks, payment or electronic money institutions, cargo and logistics companies, e-commerce infrastructure providers and intermediary service providers will present anonymized statistical information about the agreements concluded and orders placed through the internet to the Ministry of Customs and Trade monthly.

Some of the information held on the system, e.g., names of service providers and their domain, mobile app names, will be published on a website opened by the Ministry on the www.eticaret.gov.tr address.

4.6. Continuous Information for Electronic Commerce Activities, Communiqué No. 464 of Fiscal Tax Procedural Law

With the General Communiqué of the Tax Procedure Law No. 464 published in the Official Gazette on 24 December 2015, the Ministry of Treasury and Finance obliged the following taxpayers to provide continuous information for their electronic commerce activities and issue the e-Archive invoice for online sales within the scope of studies for monitoring the commercial electronic activities: Intermediary Service Providers, Banks, Online Advertisement Service Intermediaries, and Cargo and Logistic Operators. The Communiqué was effective as of 1 July 2016.

The mentioned persons are required to submit relevant information on transactions with Turkish customers monthly. Under such rules, information on digital sales of goods and services, as well as payments in respect of internet advertising services, must be submitted to the Turkish Tax Administration.³⁵

Intermediary Service Providers, which are defined in Electronic Commerce Law No. 6563, that mediate to purchase, sale, rent, or distribution on the internet should transmit the data of realized transactions to the Revenue Administration on the electronic environment for each month in a calendar year.

Banks operating in accordance with Banking Law No. 5411 are required to provide information regarding sale and rent payments made on the internet within the obligation scope.

Online Advertisement Service Intermediaries are required to submit the Internet address of the advertisement, name surname/legal name, Turkish Republic Identification Number of the person who is the owner of the internet address, collected advertisement service fee, etc.

Cargo and logistic operators are required to submit ID information of the sender, the quantity delivered based on the sender, payment amount, and information, etc.

³⁵ Jones, Seabrook, Sciliberto and Jones (2018), p. 13.

Turkey also introduced a withholding tax obligation in 2016 that encompasses payments made through e-business and other online activities.

On the other hand, it can be stated that the required information by the Tax Administration may be included in the definition of personal data because it is possible to obtain from these data, individuals' lifestyles and personal characteristics, such as their shopping habits, spending tendencies, the music they listen to, or the preferences of the movies or series they watch. Also, it is possible to make inferences of their ethnic origin, political thought, philosophical belief, religion, association, foundation or trade union membership. These are the data that should be confidential and contain certain information in order.³⁶

4.7. Incentives

4.7.1. *Corporate tax exemption in industrial property rights*

According to CIT Law, 50% of the gains derived from the invention from R & D and from innovation with new software in Turkey, is exempt from corporate tax.

4.7.2. *Patent box regime*

Turkey has instituted a patent box regime to promote domestic innovation. A patent box regime of sorts was first enacted in 2001. Later, new legislation launched in 2014, Law No. 6518, introduced a more conventional patent box regime effective from 1 January 2015.

Under this new legislation, a 50% reduction in corporate tax is applied towards revenue derived from (i) lease, (ii) transfer or sale, (iii) marketing through serial production of inventions created as a result of research, development, and innovation activities, and (iv) sales of products manufactured by using inventions licensed as patents or utility models (limited to the number of sales attributed to patents or utility models). The reduced tax rate also applies to acquired IP under certain conditions.³⁷

4.8. Barter treatment

There is no special regulation on the relation between barter treatment and big databases in Turkey.

³⁶ ÖZKAY, A, Dijital Devrim, <https://www.verginet.net/dtt/h8/DijitalDevrim.aspx> [Acces date: 1 November 2020].

³⁷ Vedantika Bhagat (2016), Patent Box Regimes And Innovation Ecosystem, TEPAV, p. 5.

Part Five: Indirect tax

As mentioned above, Law No. 7061 made some significant amendments regarding e-commerce transactions in the VAT Law No. 3065.

As of 1 January 2018, the persons who do not have residency nor legal center or business center in Turkey and provide services electronically to a real person who is not a VAT taxpayer, shall declare and pay VAT of this transaction in Turkey. MFM is also authorized to determine the scope of the services provided in the electronic environment and the principles regarding implementation. Electronic services include online services like streaming music, films, e-books, gaming services, domain names, hosting, website and webpage support etc. Delivery of services is realized through the rendering of the service. The delivery of physical goods is not within the scope of the new VAT regulation but is already regulated in earlier legislation.³⁸

The standard rate of VAT in Turkey is 18%, and reduced rates are 1% (e.g., newspapers and magazines, basic foodstuff) and 8% (e.g., pharmaceuticals, medical products). In this context, reduced tax rates for digital services are also applicable.

On 31 January 2018, the Turkish Revenue Administration issued a Communiqué regarding this tax liability. The Communiqué mandates to non-residents who provide e-services to individuals who are not VAT taxpayers in Turkey, that they shall declare the VAT Return by registering as "Special VAT Liability for Electronic Service Providers." Late filings will be subject to tax penalties regulated under Law No. 213.

Electronic service providers have the authority to demand a fee from the customer, determine the general conditions for the service in question, or perform the service.

Electronic service providers must declare their transactions electronically with the new existed VAT Return No. 3. Those who establish a Special VAT Obligation for Electronic Service Providers are excluded from the obligation to have their declarations signed by professionals without any limitations.³⁹ The VAT return period of the taxpayers is monthly. Returns must be submitted electronically through the internet by the 26th day of the month following the end of the return period. VAT return should be made out in Turkish lira. Payment in full must be made by the 26th day of the same month. Those who have Special VAT Obligation for Electronic Service Providers are not obliged to bookkeeping, required by Law No. 213.

³⁸ The Presidency Decision, published in the Official Gazette No. 30775 and dated on 15 May 2019, related to Implementation of Certain Articles of Customs Law No. 4458, abolished the custom tax exemption for goods that are delivered to Turkey by mail or express cargo services. The decision that was formerly applicable to the goods whose prices are lower than EUR 22.00. The decision maintains the existing customs tax exemption for books.

³⁹ As a rule, taxpayers in Turkey are obliged to have their declarations signed by professionals, that are Chambers of Certified Public Accountants (SMMM) or Chambers of Sworn-In Certified Public Accountants(YMM).

Part Six: Tax accounting

6.1. Recognition of transactions

Within the scope of Income Tax Law No. 193 and Corporate Tax Law No.5520, commercial incomes of individuals and incomes of legal entities are taxed on an accrual basis. In this context, earnings from big database transactions are taxed on an accrual basis.

6.2. Capitalization and amortization

The economic assets used for commercial activities are subject to depreciation and their depreciation periods are determined in accordance with the Communiqué numbered 333 of Tax Procedure Law No.213, issued in 2004 by the MTF. Those related to databases can be envisioned as data communication systems, intangible assets, or computer software.

According to the Communiqué, telex and data modem devices, data terminal interface devices, interactive telecontrol systems, network side components, data communication systems, and license plate recognition systems are subject to a five-year depreciation period. In this context, only data terminal systems are considered as an economic asset subject to depreciation.

Intangible economic assets, defined as franchising, patent, formula, design, sample mould, technical knowledge (know-how), format, copyright and similar rights, license, right of use and permission or the other rights (such as the right to operate) given by government agencies and organizations, are also subject to amortization for 15 years. On the other hand, computer software is subject to depreciation for three years. According to these regulations, it is not clear to what extent databases will be subject to depreciation.

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Summary and conclusions

The commercial use of data (that is, digital information) has been transformed by modern technology. The ubiquity and accessibility of the internet alongside technological advancements in computing power and algorithmic processing, have made it easier and more useful to collect and analyze unprecedented volumes of data. In turn, this has made it possible to transact in a variety of complex commercial offerings involving data. Various new rules have been proposed and adopted at the state and local tax (“SALT”) level, including sales taxes on “data processing transactions” (broadly similar to the “digital services taxes” proposed and enacted by numerous countries around the world).

At the federal level, there are no special regimes or cohesive rules in the United States Internal Revenue Code (“Code”) or otherwise that are explicitly applicable to data transactions. The rules that could be applied to determine the tax consequences of a data transaction are based on commercial and tax law concepts that long predate the modern leaps in technology that have made today’s data transactions possible. Accordingly, it is difficult to ascertain with certainty the US federal income tax treatment of the innovative business models described in this branch report.

The US federal income tax consequences for a taxpayer often depend, in the first instance, on the character of income derived by the taxpayer. In this framework, the threshold question is whether a transaction involving data should be considered a property transaction or a services transaction. The “income characterization” rules in the Code refer to various key words, including property, intangible property, intangibles, and services, and then provide the rules for determining the type of income derived from transactions involving these things, including but not necessarily limited to “gain”, “rents”, “royalties”

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and “services income”.³ Transactions in data might fall within any one of these categories, depending on the commercial realities of a given offering or exchange. Even though “data” can be collected, archived, processed, and analyzed—and even though it can be held, stored, and transferred from one party to another—traditional notions of property law do not apply. Rather, in most cases, the commercial and legal consequences of transaction involving data are derived from the terms of the contract between the parties.

In other words, from a US perspective, a data transaction does not involve the transfer of property as such, and does not grant rights in property. Rather, it involves a right of access to information in raw, processed, or summary form. Even so, US tax concepts of “intangible property” as expressed in certain parts of the Code may be sufficiently broad to refer, in some circumstances, to data. This creates an inconsistency, where traditional notions of property law might not apply to a data transaction, but US tax principles might nonetheless suggest the arrangement could be treated as a property transaction in some instances (or, equally important, an underlying premise in the US tax framework is that property law concepts can be applied to the item being characterized—which simply is not the case with data).

This report discusses the current body of law that may be applied to determine character of income (or other US tax consequences) in various fact patterns. In many cases, the answer is not clear, though broadly speaking, the existing US tax framework seems to support the view that transactions in data should be treated as transactions involving the performance of services, giving rise to services income. This triggers a variety of consequences, including that the “source” of the income is determined by reference to the location where the services are performed, itself a particularly fact-intensive determination because data can be gathered and analyzed by computers, servers, and equipment that might be located anywhere in the world. Given the ever-increasing importance of “data” in today’s global economy and value chains, clarification would be welcome.

Introduction: Legal background

What is data and what forms can it take?

Generally, “data” means “information,” or “facts about a situation, person, event, or similar subject matter.”⁴ This branch report will use the term “data” to refer to information collected, processed, accessed or transmitted via a digital, non-analog, medium. Data

³ The fundamental task of determining the proper character of income derived from a data transaction arises in numerous contexts in the Code, including but not limited to the following: (i) determining whether a payment to a non-US person is subject to gross-basis US withholding tax (and whether it is within the scope of, for example, the royalties article of an applicable treaty); (ii) categorizing the income in the context of the foreign tax credit “baskets”; (iii) determining the “source” of the income under the withholding or the foreign tax credit regimes; (iv) categorizing the income for purposes of applying the subpart F controlled foreign corporation (“CFC”) rules; and (v) determining the most reliable method for transfer pricing a data transaction between related parties.

⁴ *Cambridge International Dictionary of English*. CAMBRIDGE: CAMBRIDGE UNIVERSITY PRESS, 2021 (available at: <https://dictionary.cambridge.org/us/dictionary/english/information> (last visited 15 December 2021)) (defining “information” as “facts about a situation, person, event, etc.”); see also Lothar Determann, *No One Owns Data*, HASTINGS 70 L.J. 1, 6 (December 2018) (hereinafter “*No One Owns Data*”).

might be derived from an enormous array of settings including but by no means limited to the following: industrial (machine data); financial (market data); social (political data, educational data); natural (climate, atmospheric, or seismic data); and traffic or commerce (user data).⁵

Notwithstanding the countless forms data can take, this branch report will categorize data based on the way it is organized and/or utilized commercially, as follows: raw data, aggregated data, and data analytics (each discussed in more detail below).⁶

“Raw data” is data in its original, unprocessed, and unabridged form. Contrary to popular belief, many companies that have access to enormous reservoirs of raw data relating to their user bases or online presence do not collect and maintain the data for purposes of directly monetizing it by making it available to third parties.⁷ Aggregated data, on the other hand, generally is the result of organizing or processing raw data (sometimes, by third-party data vendors).⁸ Finally, data analytics involves evaluating raw data and aggregated data to develop insights that can drive decisions, find relationships, solve problems and, ultimately, provide a competitive advantage.⁹

General property law

Broadly speaking, traditional notions of rights in property (such as rights in tangible property and certain types of intangible property) do not apply to data.¹⁰ Consistent with

⁵ ⁴ Although the data being analyzed in this branch report is limited to data stored, aggregated and analyzed online/electronically, it is possible that the collection of data took place through physical, in person means (e.g., shoppers in a brick and mortar store enter their phone number when prompted at checkout, which enables their purchase history to be stored online, even though purchases were made in-person).

⁶ ⁵ The term “aggregated data” appeared in the IFA Directives for branch reports, and this branch report adopts that term, although “processed data” might be more precise. Aggregated data is typically understood to mean data that has been anonymized and is presented as information concerning groups of individuals. See, e.g., Cal. Civ. Code § 1798.140(a) (defining “aggregate consumer information” to mean “information that relates to a group or category of consumers, from which individual consumer identities have been removed, that is not linked or reasonably linkable to any consumer or household, including via a device”). This branch report uses “aggregated data” to refer to organized or processed data, regardless whether it is anonymized personal information.

⁷ See Wolfie Christl, *Corporate Surveillance in Everyday Life: How Companies Collect, Combine, Analyze, Trade, and Use Personal Data on Billions*, CRACKED LABS (June 2017) (available at: <https://crackedlabs.org/en/corporate-surveillance>) (hereinafter “*Corporate Surveillance in Everyday Life*”).

⁸ See Sally Martin, *What's the Best Data Source? Retailer Director or Syndicated Nielsen/IRI Data?* CPG DATA TIP SHEET (27 October 2014) (available at: <https://www.cpgdatainsights.com/get-started-with-nielsen-iri/data-source-retailer-syndicated/>). There are, however, examples of retailers, that have outsourced data activities to a subsidiary company to evaluate advertising within the same company group. See e.g., Tesco, which outsourced its Clubcard and data activities to a subsidiary company, Dunnhumby to “plan, personalize and evaluate advertising.” See *Corporate Surveillance in Everyday Life*, supra note 7.

⁹ See generally Frank Ohlhorst, *Big Data Analytics: Turning Big Data into Big Money*, JOHN WILEY & SONS, INC. (22 October 2012) (available at: https://books.google.com/books?hl=en&lr=&id=59jqanSNomWC&oi=fnd&pg=PR9&dq=big+data+analytics&ots=_FbQCRDMV7&sig=oO-Y72bCLM084l8B8Z8ULRqc3JM#v=onepage&q=big%20data%20analytics&f=false).

¹⁰ Raffaele Giarda and Adrian Lawrence, *Data As An Asset*, BAKER MCKENZIE (September 2019) (available at: <https://www.bakermckenzie.com/en/-/media/files/insight/publications/2019/09/data-as-an-asset-report.pdf>).

this observation, under US law,¹¹ individuals and businesses are not treated as the owners of the data they generate and collect.¹² Thus, applying general property law principles to transactions in data tends to create imperfect and tenuous analogies.

In US law, the notion of “property” is expansive, referring generally to “everything that is owned” or that “may be the subject of ownership”.¹³ Broadly speaking, US law categorizes property as one of the following:

1. real property (*e.g.*, land or real estate);
2. personal property (physical property other than real property); and
3. intellectual or intangible property (property based on ideas).

A property owner can enforce or assert its property rights against others, including (1) the right to possess, (2) the right to exclude, and (3) the right to transfer.¹⁴ It is worth noting that transactions in data can involve circumstances that mimic transactions in property by, for example, allowing the holder to exclude others (*e.g.*, a purchaser of an organized data set is given exclusive use of or access to the data set). For purposes of this branch report, it is helpful in some respects to think of contract rights as providing (or prohibiting) *rights of access* to data (which is not property), rather than conveying (or retaining) the more traditional property rights in data.

It is notable that “data” exists separately from the manifestations in which it is embodied. Databases provide an example of the distinction between data (in which there are no property rights) and its manifestation or embodiment (which may be protected by, *e.g.*, a copyright). Property law, therefore, can apply to the physical and intangible embodiments of data, but it is unclear whether this extends to the underlying data itself.¹⁵

Overall, the exclusion of data from the scope of property laws is appropriate and intentional, reflecting a balance between the public’s interests in data (individually and collectively) and the importance of access to it, and the fact that the policy justifications for granting property rights, such as encouraging investment in property and incentivizing innovation, do not directly apply to transactions in data. As a result, data, in the US, is generally not eligible for the types of legal protections that might be granted to “property” – whether tangible or intangible.¹⁶

Copyright

The Copyright Act of 1976 protects original creative expressions of certain written works, including compilations of facts. A compilation is “a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship”.¹⁷ Factual compilations permit only a limited copyright protection known as “thin copyright”

¹¹ This branch report will use the phrase “US law” or “US tax law” to refer generally to the combined body of federal law and the laws of the 50 states.

¹² Giarda and Lawrence, *supra* note 10.

¹³ *Id.* at 8.

¹⁴ *Id.* at 8.

¹⁵ *See id.* at 11.

¹⁶ *Id.*

¹⁷ 17 USC. § 101.

— that is to say, the copyright adheres to the original expression of the compilation itself, but not the underlying ideas, data, or information.¹⁸

In *Feist Publications Inc. v. Rural Telephone Service Co.*,¹⁹ the Supreme Court rejected the notion that copyright protection extends to the underlying data in a published work (in *Feist*, a white pages phonebook).²⁰ Even so, in some cases, data included in a database may be copyrightable where complex algorithms are used to produce the data, provided that the methodology used in calculating the data has sufficient “creative spark.”²¹ Other cases suggest that the application of algorithms to gather the data may not be in itself sufficient to establish originality, where the raw data is purely factual and the algorithms employed are commonplace.²²

Sui Generis rights

“Sui generis” database rights do not exist in the US.²³ Congress attempted to pass such database protections in 1997–98, but failed.²⁴

Trade secret

Trade secret law in the US was historically state based, and generally is based on the rules of the Uniform Trade Secrets Act (UTSA). The Defend Trade Secrets Act of 2016 (DTSA) created a federal right of action for trade secret misappropriations. Both the UTSA and the DTSA define “trade secrets” as information, such as “forms and types of financial, business scientific, technical, economic or engineering information . . .” that an owner has taken “reasonable measures” to keep secret and is able to derive value, such as certain competitive advantages, from maintaining such secrecy.²⁵

Trade secret law does not grant protections to many forms of data because the secrecy

¹⁸ As stated in 17 USC. 103, “the copyright in a compilation or derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material.”

¹⁹ *Feist Publications Inc. v. Rural Telephone Service Co.*, 499 US 340 (1991).

²⁰ While this case involved a physical compilation — white pages phonebook — it is relevant to databases since they receive copyright protection, if at all, as compilations of facts under the Copyright Act.

²¹ See *CDN Inc. v. Kapes*, 197 F.3d 1256 (9th Cir. 1999) (reports published by CDN of wholesale prices for collectible coins based on CDN’s expertise and judgment in analyzing available bid and price ask had the required element of creativity or creative effort, but “[i]tems not original to the author, i.e., not the product of his creativity, are facts and not copyrightable.”).

²² *Banxcorp v. Costco Wholesale Corp.*, 978 F. Supp. 2d 280 (S.D.N.Y. 2013) (denying copyright protection to tables published by petitioner that included calculations of a specific national average rate for five-year certificates of deposit that Costco used in its advertisements, because “...(1) the raw data used to create the final value were unprotectable facts; (2) the method of converting raw data into the final value was an industry standard, or otherwise widely accepted as an objective methodology; and (3) the final value attempted to measure an empirical reality.”).

²³ Such rights treat databases as intangible assets without regard to the existence of the creative element described above.

²⁴ Collections of Information Antipiracy Act, H.R. 2652, 105th U.S. Congress, (1998). (Available at: <http://www.techlawjournal.com/congress/hz652data/Default.htm>; last accessed 15 December 2021)

²⁵ 18 USC. § 1839.

that is prerequisite to trade secret protection does not comport with the very notion of “data.”²⁶ Consumers cannot claim trade secret protection from their own data harvested by commercial and non-commercial entities because consumers do not gain a competitive advantage in their own data.²⁷ Similarly, harvesters of data cannot claim trade secret rights in the data collected because such data cannot be kept secret from the consumers from whom the data was derived.²⁸ Data transactions are not based on hiding information, but rather collecting, aggregating and analyzing it, and the secrecy requirements of trade secret law are not consistent with data monetization models. That said, data gathering methods may be protected by trade secret.²⁹

Soft intangibles

Businesses can derive value and gain competitive advantage through certain intangibles, such as customer lists and goodwill. For example, customer lists and loyalty programs can be used to enable businesses to instill brand loyalty. By tracking personal information and preferences of consumers, businesses can tailor advertisements and pitch customized goods and services based on the personal preferences of those consumers.

Similarly, “goodwill” refers to the competitive advantage, approval and support of a business acquired through its brand and good reputation. Under trademark law, goodwill is generally linked to trademark, and is not, itself, a separately identifiable asset which can be sold, transferred or licensed.³⁰ Nonetheless, the Code tends to treat goodwill as an item of intangible property.³¹

Contract law

The legal framework of US contract law is generally consistent with the description in the general report’s legal framework.

Tort law

The legal framework of US tort law is generally consistent with the description in the general report’s legal framework.

²⁶ See Determann, *No one Owns Data*, *supra* note 4 at 16.

²⁷ See *id.*

²⁸ See *id.*

²⁹ See *id.*

³⁰ Emily A. Bayton, *United States: The Value of Goodwill in Trademarks*, MONDAQ (4 May 2018) (available at: <https://www.mondaq.com/unitedstates/trademark/698882/the-value-of-goodwill-in-trademarks>).

³¹ See, e.g., I.R.C. 367(d)(4). For further discussion, see section 6.2 Capitalization and amortization.

Regulatory restrictions

In the US, federal and state data privacy regulations govern certain entities' collection, use, disclosure and other processing of personal information. For instance, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), is a federal statute that governs the processing of "protected health information" by health plans, health care clearinghouses and health care providers in health insurance-related contexts.³² It is important to note that HIPAA does not grant any ownership rights to the individuals in their records.³³

Some jurisdictions have taken measures outside the context of healthcare to protect the collection, use and transfer of user data.³⁴ Specifically, following the enactment of the General Data Protection Regulation in the European Union, the State of California enacted the California Consumer Privacy Protection Act of 2018 ("CCPA"), which regulates the collection and processing of California residents' "personal information".³⁵

Control

Because substantial investment and innovation may be required to design effective programs or algorithms to gather and organize the data, there often is a barrier to entry to developing valuable data sets, which has the effect of excluding others from making use of data that is in theory freely available. In this sense, exclusive control over data arising from market circumstances is adjacent to the property law concept of exclusion, raising the question of whether property law concepts could (or should) be extended by analogy to apply to certain transactions in data where the ultimate commercial value lies in access to and control over the raw data.

In other words, it is arguable that a person with a certain degree of "exclusive control" over data or data sets (and accordingly, the ability to restrict or grant access to others) has the functional equivalent of a property right (the right to exclude, for example), even though property law would not recognize a statutory or formal interest in the underlying data. Our assessment of the overall US legal landscape suggests that the accepted foundations of property rights are not readily adaptable to transactions in data, where the important commercial factor is exclusive control of or exclusive access to a "thing" that is not property in the traditional sense.

³² 45 CFR § 160.102.

³³ Determann, *No one Owns Data*, *supra* note 31 at 23.

³⁴ The US has not on a federal level enacted comprehensive data protections.

³⁵ Baker McKenzie, *California Consumer Privacy Act (CCPA) – Take Action Now!*, [www.bakermckenzie.com/en/insight](https://www.bakermckenzie.com/en/insight/publications/2018/12/california-consumer-privacy-act), <https://www.bakermckenzie.com/en/insight/publications/2018/12/california-consumer-privacy-act> (17 December 2018). While the definition of personal information is quite broad, it does not include, for example, information derived from public records.

Part One: Basic principles: Character, source and nexus

1.1. General overview

The Code contains rules to determine the “character” of income, and the “source” from which income is derived. The character and sourcing rules determine consequences in various provisions of the Code, and, as such, there is not a single view of character and source in the Code, but rather contextual applications of different rules depending on the situation.

Below is a brief tour of the provisions of the Code that govern character and source of income, including commentary regarding how one might apply the underlying concepts to data transactions.

1.2. Character

A. General background

As relevant to the current inquiry regarding taxation of data, general US principles on the character of income tend to place transactions into one of two broad categories: property transactions or services transactions.³⁶ For example, Code section 61(a), the US federal tax statute defining “gross income”, defines the term to mean “all income from whatever source derived”, providing a non-exhaustive list of 14 categories of gross income, including most relevantly: “(1) compensation for services; ... (3) gains derived from dealings in property; ... (5) rents; (6) royalties.”³⁷

Within this framework, the characterization of transactions in data should focus on the distinction between arrangements for the provision of services and arrangements to provide rights in intangible property.³⁸ These categories of gross income appear in various contexts throughout the Code.³⁹

³⁶ It is very important to note that US tax principles recognize that a single payment may represent consideration for multiple transactions which, if separately analyzed, would give rise to more than one character of income for tax purposes. In some contexts, the Code or regulations require a taxpayer to disaggregate such a bundled transaction, though there is no explicit, generally applicable rule. See, e.g., *Guy F. Atkinson Co. of California v. Comm’r.*, 82 T.C. 275 (1984) (an arrangement for designing and constructing a dam at a site selected by the customer gave rise to services income, not sales income, despite the fact that the arrangement called for delivery of the full property interest in the dam); Rev. Rul. 64-56, 1964-1 C.B. 133 (requiring taxpayer to allocate consideration for property and consideration for services provided that the “services are not merely ancillary and subsidiary to the property transfer”). There is no consistent standard that delineates the circumstances under which disaggregation is required, though the “subpart F” regime, for example, requires disaggregation only if the component amounts are “separately determinable”. Treas. Reg. §1.954-1(e). Otherwise, the subpart F consequences are determined by reference to the ‘predominant character’ of the transaction.

³⁷ Within the category of property transactions, the subject property might be sold (that is, a disposition of ownership interests in the underlying property – whether tangible, intangible or real property), leased (the owner gives the lessee the right to use the property – either tangible or real property), or, licensed (the owner or “authorized licensor” grants the licensee the right to use intangible property).

³⁸ Some cases involve a situation where activities result in developing intangible property, and address the issue of whether the person performing the activities should be considered to be providing a service or creating an ownership interest in the developed intangible. See *Ingram v. Bowers*, 57 F.2d 65 (2d Cir. 1932) and *Boulez v. Commissioner*, 83 T.C. 584 (1984), both discussed further below.

³⁹ See, e.g., I.R.C. § 954(c) (royalties), 954(e) (services).

Especially relevant for this report is the term “royalties” which, interestingly, does not have a generally applicable definition.⁴⁰ Broadly speaking, one might define it to mean consideration for granting the right “to use” “intangible property” – other terms without universally applicable definitions.⁴¹

B. Characterizing a transaction as involving intangible property or services

The following discussion provides the general overview of the framework in US tax law for distinguishing when a transaction involves a transfer of intangible property (or rights in intangible property) or the performance of services.

(i) Section 861(a) and US withholding tax principles

Characterizing a transaction as a service or royalty under the US withholding tax rules depends on both the intention of the parties and the facts and circumstances.⁴² Because the term “royalty” refers to a payment made to the owner of intangible property for the right to use such property, a payee will have royalty income only if it has an ownership interest in the property giving rise to the income.⁴³ In *Boulez v. Commissioner*, a well-known conductor entered into a contract to make recordings in the United States. Although the contract referred to the payments as “royalties,” the Tax Court found that the taxpayer did not have a property interest in the recordings since the ‘work-for-hire’ doctrine applied, thus the payments he received were for the performance of personal services.⁴⁴

As discussed in the general US Property law section, transactions in raw data and some transactions in aggregated data are more likely to have characteristics that could mimic a property transaction, due to the exclusive grant of access to the gathered data. However, this ability to control access to data derives from a contractual right, rather than a true property right. Cases such as *Boulez* and *Karrer* would suggest that where there is no property interest in the first instance, none exists to be transferred, precluding royalty treatment. More broadly, the absence of property rights in data make it very difficult to apply rules that are grounded in property law. These and similar authorities indicate that services characterization is the default treatment for transactions in data.

⁴⁰ The income sourcing rules of §§ 861(a)(4) and 862(a)(4) refer to royalties ‘for the use of or for the privilege of using patents, copyrights, secret processes and formulas, good will, trade-marks, trade brands, franchises, and other like property’. See also I.R.C. § 954(c) (subpart F ‘foreign personal holding company income’ can include ‘royalties’). See also I.R.C. §§ 904(d)(1)(c), 904(d)(2)(b).

⁴¹ See, e.g., I.R.C. §§ 197 (“section 197 intangible”), 367(d)(4) (“intangible property”). See also I.R.C. § 865(d)(2) (“intangible” means any patent, copyright, secret process or formula, goodwill, trademark, trade brand, franchise, or other like property”).

⁴² See e.g., *McClain v. Commissioner*, 40 T.C. 841, 849 (1963); *Chilton v. Commissioner*, 40 T.C. 552, 562 (1963); *Boulez v. Commissioner*, 83 T.C. 584; *Ingram v. Bowers*, 57 F.2d 65; *Karrer v. Commissioner*, 152 F. Supp. 66 (Ct. Cl. 1957).

⁴³ See, e.g., *Sierra Club, Inc. v. Commissioner*, 86 F.3d 1526 (9th Cir. 1996) (“... ‘royalties’ are payments for the right to use intangible property”).

⁴⁴ See also *Karrer v. Commissioner*, 152 F. Supp. 66 (Ct. Cl. 1957) (payments to researcher are for services because the company, not the researcher, owned the rights to developed intangibles); *Ingram v. Bowers*, 57 F.2d 65 (2d Cir. 1932) (contract to create copyrighted musical work gave rise to services income).

(ii) Section 367(d) – nonrecognition for related party transfers of intangible property

As noted, US tax law does not have a standard definition of “intangible property”, though US tax practitioners tend to refer to the definition of the term in section 367(d).⁴⁵ Relevant here, section 367(d) defines “intangible property” to include a campaign, survey, study, forecast, estimate, customer list or technical data. Any of these might, depending on circumstances, describe a transaction in data. Moreover, the catch-all definition -- an “item the value or potential value of which is not attributable to tangible property or the services of any individual” -- seems also to potentially describe data transactions.⁴⁶ So at least for purposes of determining the consequences under section 367 of a “transfer” of “data” from a US parent to a non-US subsidiary, section 367(d) arguably could deny non-recognition treatment, with all the ancillary consequences that follow.⁴⁷ And, in contexts other than outbound transfers of intangible property (such as subpart F or the foreign tax credit), one might nonetheless turn to the section 367(d) definition to determine whether the character of income is “royalties”.⁴⁸

(iii) Section 482 – pricing transfers of intangible property among controlled taxpayers

Closely related to section 367(d), in some respects, is Treas. Reg. § 1.482-4(b), which provides general transfer pricing rules for ‘transfers’ of ‘intangible property’ among controlled taxpayers and provides its own definition of that term.⁴⁹ For transfer pricing purposes, the term “intangible property” includes the following items that, in many cases, might include or be synonymous with “data”:

- (5) Methods, programs, systems, procedures, campaigns, surveys, studies, forecasts, estimates, customer lists, or technical data; and
- (6) Other similar items. For purposes of section 482, an item is considered similar to those listed in paragraph (b)(1) through (5) of this section if it derives its value *not from its physical attributes but from its intellectual content or other intangible properties*.

Given this rather broad definition, a “transfer”⁵⁰ of data between related parties or controlled taxpayers could arguably be within scope.⁵¹

⁴⁵ Prior to enactment of the Tax Cuts and Jobs Act (‘TCJA’), Pub. L. No. 115-97 (2017), the definition was found in IRC § 936(h)(3)(B).

⁴⁶ Contracts involving transactions in data generally would not describe the underlying transaction as a transfer of rights in intangible property, for the reasons described above in the property law section. Instead, transactions in data would likely involve rights of access to the data. Interestingly, the section 367(d) definition of intangible property also includes “licenses” and “contracts”. In this context it also is noteworthy that the statutory provision does not define “contracts” and says nothing about whether it is meant to include not only the contracts themselves but also contractual rights.

⁴⁷ These consequences include a deemed royalty owed to the US transferor over the useful life of the property, in an amount “commensurate with the income attributable to the intangible”.

⁴⁸ See also I.R.C. § 865(d) (providing rules to determine source of income derived from the sale of an ‘intangible’), discussed further below.

⁴⁹ Section 367(d) and Treas. Reg. § 1.482-4 are closely connected, as the amount of the ‘deemed royalty’ required under the former would be determined by applying the transfer pricing methodologies in the latter.

⁵⁰ Query whether allowing access to data by way of a contractual arrangement should be interpreted as a “transfer” for this purpose. See above at Introduction – Control.

⁵¹ See discussion of transfer pricing below at Part Three.

(iv) Software and cloud-specific regulations

Another important reference point is the framework of the so-called “software characterization regulation” found in Treas. Reg. § 1.861-18. By its terms, the software characterization regulation applies only to transactions involving the ‘transfer of a computer program’ (i.e., not to services transactions). The software characterization regulation applies copyright law concepts to determine whether a transfer of a computer program should be treated as a sale of the copyright, a license of the copyright, or a sale or lease of a copyrighted article.

Notably, Proposed Regulation section 1.861-18(a)(3) would replace the key term that sets the scope of the current regulation, “computer program”, with “digital content”, which would be defined as follows:

a computer program or any other content in digital format that is either protected by copyright law or no longer protected by copyright law solely due to the passage of time.⁵²

While this definition would expand the scope of application of the regulation beyond “computer programs” to also include “digital content”, it would likely still not apply to many transactions in data because it requires that the “digital content” is or was protected by copyright law – which is typically not the case with respect to data.

A companion set of Treasury Regulations – currently in proposed form – governs “cloud transactions”, defined as “obtaining on-demand network access to computer hardware, digital content or other similar resources”.⁵³ Despite the general implication that making this property vs. services distinction is its fundamental purpose, the examples in the cloud regulation suggest that in practice a cloud transaction almost without exception involves the provision of a service, not a lease of property – presumably because a cloud transaction does not appear to involve a transfer of property or rights in property.⁵⁴

The preamble to the cloud regulations explains that the drafters intended for the regulation to apply to transactions that “share characteristics of on-demand network access to technological resources such as *access to information in certain databases*”.⁵⁵ This statement suggests that the drafters might have intended that the rules could be applied to a data transaction.⁵⁶ If, however, the trigger for this result lies in the fact that the scope of the regulation includes “digital content”, the drafters would need to modify the definition of digital content to delete or qualify the reference to copyright law, because as noted above data is not copyrightable.

In summary, while both the software characterization regulations and the cloud regulations could potentially be relevant to analyzing a data transaction, ultimately both fall short because they operate within a property law framework. Accordingly, the rules in these regulations prove to be an awkward fit to data transactions, although they nonetheless

⁵² Prop. Treas. Reg. § 1.861-18(a)(3).

⁵³ Prop. Treas. Reg. § 1.861-19(b).

⁵⁴ Notable is that the current framework refers to a “lease of property”. While this makes sense if the focus is on the computer hardware and infrastructure, it is not clear that the drafters considered the fact that the regulation would also apply to “digital content” and that “lease” treatment might not be entirely accurate.

⁵⁵ Fed. Reg. Vol. 84, No. 157 (emphasis added).

⁵⁶ As noted, the property law framework employed by the regulations makes it very difficult to apply to a transaction in data.

provide some clues regarding how tax rules in the future – including the existing proposed regulations when issued in final form – might apply to transactions in data.

(v) Summary and conclusions

To reiterate and summarize, US tax law provides no explicit guidance on how to apply the character of income framework to transactions in data (categorized in this branch report as transactions in either raw data, aggregated data, and data analytics). Complicating matters further, the US rules on characterization tend to rely on property law concepts and, as noted above, property law concepts are not directly applicable to data. The most commonly cited definitions of intangible property, section 367(d) or Treas. Reg. § 1.482-4(b), have catch-all provisions suggesting that if the item does not involve services performed by an individual, then it is property. We note that the ‘intangible property’ definitions in section 367(d) or Treas. Reg. § 1.482-4(b) could apply not only to a transfer of data but also, for example, to the granting of contractual rights of access. Taking this a step further, this indifference as to whether a “transfer” of the underlying data has occurred is in contrast to the software characterization regulations and 861 precedents, which *do* require a transfer. This, in turn, is in contrast to the cloud regulations, which require only on-demand access to the digital content, and not a transfer. In any event, it is not clear whether or how either the software characterization regulations or the cloud regulations, as currently drafted, should apply to transactions in data, because they focus on property law concepts that, under US law generally, are inapplicable to data. Moreover, current case law strongly suggests that it would be inappropriate to characterize payments for data as royalties.

Thus, as illustrated by these various examples, the current state of the Code offers a diversity of definitions of intangible property, resulting in diverse applications. Against this backdrop, the general observation emerges that the Code’s framework carries a negative implication: if any particular transaction does not involve “intangible property” as defined in the applicable foundational provisions (as would be the case with transactions in data), and if the binary property vs. services premise is valid, then the income should be characterized as services income.⁵⁷

1.3. Source

For US federal income tax purposes, the “source” of income can be “within” and “without” (or “outside”) the United States.⁵⁸ Whatever the context in which source of income is relevant, the applicable sourcing rule will vary depending on the character of the income.

⁵⁷ Consistent with this approach, the examples in the proposed regulation on cloud transactions indicate that generally speaking, services characterization is appropriate, and the drafters of the regulation appear to have intended its scope to include data transactions (i.e., the preamble’s reference to access to information in databases). As noted above, the conceptual framework of the proposed regulation requires certain modifications in order for it to easily apply to data transactions.

⁵⁸ Source of income may be relevant to determine tax consequences for both foreign and US resident taxpayers. For non-US persons, both those who do and do not have nexus, source determines whether income is subject to tax in the US. or US persons, US source of income rules are relevant to determine the extent to which foreign tax credits (“FTC”) may be available for income taxes paid to foreign governments.

Code sections 861, 862, 863, and 865 provide sourcing rules for various categories of income including interest, dividends, compensation for services, rents and royalties and gain from sales of property. As was the case with characterization rules, however, none of these rules is clearly applicable to data transactions. Following the general principle articulated above, that commercial transactions fall along a spectrum between transactions in property and transactions in services, we first discuss rules relating to property, then services transactions.

A. *Sourcing transactions in property*

(vi) *Rents and royalties*

Per Code sections 861(a)(4) and 862(a)(4), the source of rents or royalties for the use of, or the privilege of using, intangible property, namely “patents, copyrights secret processes and formulas, good will, trade-marks, trade brands franchises, and other like properties” is based on the location of the “use” of the property. There is considerable uncertainty in the US tax law on the source of royalty income.⁵⁹

(vii) *Sale of personal property*

The general rule is that income from the sale of personal property is sourced to the residence of the seller.⁶⁰ An exception may apply for sales of inventory property. Broadly, gains, profits, and income derived from the purchase of inventory property outside the US and its sale or exchange within the US are considered to be derived from a US source.⁶¹ Conversely, gains, profits, and income derived from the sale of inventory property purchased within the US and sold outside of the US is considered foreign source.⁶² Gains, profits and income from inventory property produced within the US and sold outside the US, or vice versa, are sourced on the basis of production activities.⁶³

Special rules apply to the sale of property by a non-US person where the income is “attributable to [an] office or other fixed place of business in the United States.”⁶⁴ In such cases, income from any sale of personal property (including inventory property) attributable

⁵⁹ Two IRS public rulings determine the source of income not by the location of the payor entity, but by the location of the market into which the goods are ultimately sold. See Rev. Rul. 72-232, 1921-1 C.B. 276 (royalty paid by US publisher of textbooks treated as non-US source, when the books were printed in the US but sold outside the US); Rev. Rul. 68-443, 1968-2 C.B. 304 (trademark royalty treated as non-US source when US licensee manufactured the products in the US but sold them outside the US); but see *Sanchez v. Commissioner*, 6 T.C. 1141 (1946), aff’d, 162 F.2d 58 (2d Cir. 1947) (patent royalty sourced to location where US licensee performed its productive activities, even though the goods were sold outside the US); for further discussion see, Lothar Determann and Gary Sprague, *Source of Royalty Income and Place of Use of Intangible Property*, TMIJ Vol. 36, No. 8 (10 August 2007).

⁶⁰ I.R.C. § 865(a).

⁶¹ I.R.C. § 861(a)(6).

⁶² I.R.C. § 862(a)(6).

⁶³ I.R.C. § 863(b)(2), 863(b) last sentence.

⁶⁴ I.R.C. § 865(e)(2).

to such office or place of business is sourced to the US,⁶⁵ unless it is sold for use, disposition, or consumption outside of the US.⁶⁶

An exception also applies for sales of intangibles, defined as “any patent, copyright, secret process or formula, goodwill, trademark, trade brand, franchise of other like property.”⁶⁷

B. Sourcing transactions in services

Services income is sourced according to the location where the services are performed.⁶⁸ Where personal services are performed partly within and partly outside the United States, the income should be allocated between the two “on the basis that most correctly reflects the proper source of the income under the facts and circumstances.”⁶⁹

In the context of corporations, which perform services through their employees or agents, services income is sourced based on the location of the employee or agent performing activities on behalf of the corporation, not the location of the corporation itself.⁷⁰ In the modern economy and the digitized world, the location where a vertically integrated multilateral enterprise performs its complex services may be challenging to determine. In *Piedras Negras v. Commissioner*, the Fifth Circuit held that services income derived from broadcasting from a facility in Mexico was from a foreign source, even though the broadcasting was primarily targeted to a US audience.⁷¹ Based on the determination that the taxpayer derived its income from providing advertising services by employing capital and labor located in Mexico, the court held that Mexico was the location where the services were performed.⁷²

1.4. Nexus

A. US federal income tax nexus

Under the Code, tax is imposed both on US persons doing business abroad (“outbound transactions”) as well as on foreign persons earning income with sufficient nexus to the US (“inbound transactions”).

A foreign corporation is subject to US tax, pending possible application of a bilateral tax treaty, on its income that is effectively connected with a US trade or business (“ECI”).⁷³ If a

⁶⁵ I.R.C. § 865(e)(2)(A). *But see* Treas. Reg. §1.865-3(d)(2) (if the inventory property was produced, then the source could be partly US-source and partly foreign-source based on a 50/50 method or the books and records method).

⁶⁶ I.R.C. § 865(e)(2)(B).

⁶⁷ I.R.C. § 865(d)(2). Code section 865(d)(1) provides that, in the case of a sale of an intangible, the general property sourcing rule would apply to source the income to the residence of the seller; to the extent that any payments for the sale of intangible property are contingent on the productivity, use, or disposition of an intangible, the sourcing treatment will follow royalty sourcing rules.

⁶⁸ I.R.C. §§ 861(a)(3) and 862(a)(3).

⁶⁹ Treas. Reg. §1.861-4(b). See also I.R.C. § 863(b)(1).

⁷⁰ *Helvering v. Boekman*, 107 F.2d 388 (2d Cir. 1939).

⁷¹ *Commissioner v. Piedras Negras*, 43 B.T.A. 297 (1941), *nonacq.*, 1941-1C.B. 18 *aff'd*, 127 F.2d 260 (5th Cir. 1942).

⁷² See also, *Container Corporation v. Commissioner*, 107 AFTR 2d 2011-1831 (2 May 2011) citing to *Piedras Negras* to support this principle.

⁷³ I.R.C. § 882(a).

foreign corporation is considered to be engaged in a trade or business in the US (“USTB”), all of the corporation’s US source services income generally constitutes ECI and is directly taxed in the hands of the corporation on a current basis.⁷⁴ Foreign source income, on the other hand, generally does not constitute effectively connected income, with some exceptions. Foreign source services income is not ECI.⁷⁵

(viii) *US trade or business*

A foreign taxpayer can have ECI, only if it is engaged in a USTB.⁷⁶ This “US trade or business” concept is roughly parallel to the treaty nexus concept of “permanent establishment” (“PE”), albeit that USTB is generally a broader standard than PE.⁷⁷

The Code and regulations provide general categories of activities that are definitely considered to be, or not to be, the conduct of a USTB. The performance of any personal services in the US constitutes a USTB.⁷⁸ Outside this statutory provision, the regulations do not provide substantial additional guidance.⁷⁹ Case law provides that a trade or business exists when the commercial activity is “considerable, continuous, and regular”.⁸⁰

USTB standards, like US PE standards, tend to require a physical presence, or agent activity, as necessary conditions to finding an income tax nexus. Based on this history of the developing legal standard, we would expect that activities such as hosting data on third party servers in the US or collecting/accessing data wholly over the internet likely do not give rise to a USTB. However, a taxpayer that is engaged in the requisite level of activities, where those activities happen to also result in the collection of data, would be considered to have a USTB.

B. *State and local income and sales tax nexus*

Prior to *South Dakota v. Wayfair, Inc.*,⁸¹ a physical nexus requirement traditionally had been a prerequisite to finding nexus in the sales and use tax had the effect of generally exempting remote sellers from the obligation to collect and remit sales and use tax to the relevant state tax authority on behalf of consumers.⁸² *Wayfair* essentially endorsed an economic nexus standard and, following the decision, most US states with sales taxes have now adopted

⁷⁴ I.R.C. §§ 864(c)(2)(A), 882(a).

⁷⁵ I.R.C. § 864(c)(4)(A). Foreign source income that a foreign corporation earns may constitute effectively connected income only if it: (i) is attributable to an office or fixed place of business of the foreign corporation in the United States; and (ii) consists of either (a) certain rents or royalties, (b) certain dividends or interest income, or (iii) gains from the sale of or exchange of inventory. See I.R.C. § 864(c)(4)(B).

⁷⁶ I.R.C. § 871(b)(1), § 882(a)(1). But see, e.g., I.R.C. § 882(d) (election to treat rental income from US real property as ECI), 897 (gain from disposition of US real property interest treated as ECI).

⁷⁷ See *de Amodio v. Commissioner*, 34 T.C. 894 (1960), *aff’d*, 299 F.2d 623 (3d Cir. 1962).

⁷⁸ I.R.C. § 864(b).

⁷⁹ Treas. Reg. § 1.864-2(e).

⁸⁰ See *Pinchot v. Commissioner*, 113 F.2d 718, 719 (2d Cir. 1940); *De Amodio v. Commissioner*, *supra* note 99; *Spermacet Whaling & Shipping Co. v. Commissioner*, 30 T.C. 618, 634 (1958), *aff’d*, 281 F.2d 646 (6th Cir. 1960). merely owning property, or merely collecting dividend income should not be considered activity. See, e.g., *Neill v. Commissioner*, 46 B.T.A. 197 (1942).

⁸¹ 138 S. Ct. 2080 (2018).

⁸² *Wayfair* at 2099.

economic nexus standards for purposes of income and other taxes (regardless of whether the business has a physical presence in such state).⁸³ As a result, companies that meet state-specific economic nexus thresholds and that engage in cross-border transactions facilitated through electronic means, could theoretically establish nexus in multiple jurisdictions and trigger multistate tax obligations.

Part Two: Application of treaty principles

2.1. General overview

The US has a network of bilaterally negotiated tax treaties that govern income derived by a resident of the treaty partner. Because each treaty is individually negotiated and may reflect different terms, we speak generally in this section about US treaties unless a specific treaty is indicated, in particular the US Model Treaty, last updated in 2016.⁸⁴

2.2. Detailed comments

At present, none of the US Model Treaty provisions specifically contemplate data-related income as a separate category of income.

The US Model Treaty, like the Code, treats income from the use of intangible property as royalty income governed by article 12, and incorporates property law concepts in its definition. While treaties do include a definition of “royalties”, some of the individual listed items are ambiguous (*e.g.*, design, plan, process). Certainly, the phrase “information concerning industrial, commercial or scientific experience” has no generally accepted definition, and accordingly domestic US law would apply to determine whether, for example, payments related to data transactions might be considered within scope. If the “information” described in article 12 is considered to be “property”, royalty characterization may be appropriate. In that case, the royalty payment could be subject to withholding under domestic law only if the location of “use” of the information was within the US. On the other hand, services characterization is also possible under the cloud regulations, which purport to apply to the provision of access to databases (which one might consider to embody industrial, commercial or scientific experience).

If income from a data transaction is not within the scope of the royalty article, it is likely most appropriately characterized as business profits under article 7, which states that profits are only taxable in a jurisdiction to the extent the enterprise of the treaty counterparty carries on business in that jurisdiction through a PE.

⁸³ Louis Mancini, *The Growing Reach of Wayfair and Economic Nexus for State and Local Income and Gross Receipts Taxes*, Alvarez and Marsal (28 January 2020) (available at: <https://www.alvarezandmarsal.com/insights/growing-reach-wayfair-and-economic-nexus-state-and-local-income-and-gross-receipts-taxes>).

⁸⁴ Available at: <https://www.treasury.gov/resource-center/tax-policy/treaties/Documents/Treaty-US%20Model-2016.pdf>. The US uses the Model Treaty, which is often, but not always, consistent with the OECD Model Tax Convention, as the basis for its negotiations to enter into tax treaties.

The OECD is currently undertaking global tax reform efforts, continuing into 2022, that potentially could impact the treatment of transactions in data under treaties through some future multilateral agreement.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

The section 482 Regulations (“482 Regs”) and US courts applying those rules tend to focus on the written contractual agreements governing the transaction and the course of conduct in conformity with those terms.⁸⁵ While the formal framework in the 482 Regs for analyzing and pricing intercompany transfers may be applied to transactions in data, the analysis is complex because the value of data and data transactions in particular may be linked to other services or assets used in the course of business.⁸⁶ This interdependency may make it difficult to value data on a standalone basis. Thus, an important step in a US transfer pricing analysis of data transactions is to identify the role and value that data plays in the enterprise and in its value chain.

Absent specific guidance under the 482 Regs, the analytical approach to transfer pricing for data transactions should be no different than the approach for any other commercial transaction, *i.e.*, the taxpayer undertakes a functional analysis and applies the best method rule with a focus on the most reliable third-party data available. In general (and consistent with the description above of “character of income”) this requires companies to evaluate the applicability of the methods under Treas. Reg. § 1.482-4 relating to ‘intangibles’ or Treas. Reg. § 1.482-9 relating to ‘services’ to their specific facts and circumstances and select the one(s) that produce the most reliable results (*i.e.*, the “best method”).

The 482 Regs emphasize using reliable data to reasonably apply transfer pricing methods. As third-party transactions involving data become more common, the availability and comparability of unrelated transactions in data by third-party data brokers, data analytics firms, or other unrelated parties could be increasingly important. For tested data transactions that are more routine in nature for which comparables exist, a cost plus or CUT/CUP method may be most appropriate, although it might be difficult to establish sufficient comparability. For data transactions that are more complex, other methods might be more appropriate, such as identifying one party to a transaction as the tested party and applying a TNMM/CPM. A profit split method may be most appropriate where comparables are not available, and the related parties in the transaction both make non-routine contributions (*e.g.*, in the development of intangibles, including, possibly the underlying

⁸⁵ See, *e.g.*, Treas. Reg. § 1.482-1(d)(3)(ii)(B).

⁸⁶ The 482 Regs do not explicitly address transactions involving big data, though as noted above s. 367(d) now has an expanded definition of “intangible property”, and ss. 482 and Treas. Reg. 1.482-4 have been amended to incorporate by reference this definition of intangible property. With the expanded scope, it is reasonable to conclude that big data transactions are within the purview of s. 482.

data).⁸⁷ To the extent a data transaction is analyzed under the intangible framework of Treas. Reg. § 1.482-4, the ‘commensurate with income’ standard applies, requiring that the consideration paid for the use or transfer of intangibles be commensurate with the income derived from the intangible, and allowing for periodic adjustments to ensure arm’s-length consideration.⁸⁸

The role of data transactions is constantly evolving as digital businesses continue to change, and, likewise, as traditional businesses continue to leverage and grow their own digital footprint. The analysis of data transactions under the 482 Regs can be expected to shift as new legal frameworks are adopted to address rights and restrictions in data (*e.g.*, GDPR, privacy rights, or other restrictions).

Part Four: Special regimes

4.1. General overview

Presently, there are no special regimes in the US that are explicitly designed to apply to the development and sale of data or big data enabled goods or services. The Code does provide a general business credit, offsetting US tax liability dollar-for-dollar, for certain research or experimental expenditures (“R&D Credit”).⁸⁹ The R&D Credit is only available for activities that are intended to resolve technological uncertainty that exists at the outset of a project or initiative, and that constitute a process of experimentation involving testing and the evaluation of alternatives. It seems quite possible that while the design of computer software or algorithms to generate and harvest data could have the requisite degree of experimentation to qualify, the ongoing process of simply using such algorithm to collect data would not.⁹⁰

4.2. DST

The US does not have and is not contemplating adopting a federal digital services tax (“DST”) at this time. In fact, the US Congress has expressed bipartisan opposition to DST

⁸⁷ Taking as an example the Internet of Things case study, the collection of data from a connected machine or device alone may (depending on the value of such data to the company and whether such data is widely available, unique, or can be used) be most appropriately analyzed under the 482 Regs by reference to comparable transactions. Because the collection of data is likely more routine in nature and the returns could potentially be estimated using benchmarks, such returns may be best established under a CUT, CPM/TNMM, or cost plus method under section 482.

⁸⁸ The TCJA codified the concepts of “aggregation” and “realistic alternative” in s. 482, which arguably broadens the US’s position with treaty partners to include concepts such as data transactions.

⁸⁹ I.R.C. §§ 41, 174.

⁹⁰ Note, internal use software must meet an additional three prong, high-threshold-of-innovation test, such that: (1) the software is innovative, (2) the software development has significant economic risk, and (3) the software is not commercially available. H.R. Rep. No. 841, 99th Cong., 2d Sess. at II-73, II-74 (1986). *See also* Reg. § 1.41-4(c) (6)(vii)(A)-(B).

measures,⁹¹ and the US Trade Representative's investigation of the French DST and similar measures concluded that such DSTs were unreasonable and discriminatory, and in the French case, merited tariffs as a response.⁹² As part of OECD negotiations, DST collections and US tariffs in response to the same have been suspended pending negotiations.

For a description of state and local measures similar to DST, see section 5.1(B) below.

4.3. Incentives

Some states provide tax credits and incentives to companies engaging in qualified research and development activities within the state.⁹³ Some states and localities also add additional credits or other incentives on a formula or negotiated basis for other activities, such as investing capital or hiring employees in the state. These incentives can sometimes receive heightened benefit when the investment occurs in economically depressed areas.

Part Five: Indirect tax

5.1. US state and local tax: indirect tax treatment of data

Some states have moved at a faster pace than the Code and regulations regarding the taxation of transactions in data. Although there is not a singular approach to the taxation of data and data transactions amongst states, state legislation in this area is in direct response to the increased use of data to effect advertising and algorithms. The new legislation has made it possible for states to raise tax revenue from both in state and out-of-state businesses.

⁹¹ Senate Finance Committee Chairman Chuck Grassley (R-Iowa) and Ranking Member Ron Wyden (D-Ore.), *Grassley, Wyden Statement on USTR Findings on French Digital Services Tax* (Dec. 02, 2019), [SENATE.GOV](https://www.grassley.senate.gov/news/news-releases/grassley-wyden-statement-ustr-findings-french-digital-services-tax) Available at: <https://www.grassley.senate.gov/news/news-releases/grassley-wyden-statement-ustr-findings-french-digital-services-tax>.

⁹² Office of the United States Trade Representative, *Conclusion of USTR's Investigation Under Section 301 into France's Digital Services Tax*, [USTR.GOV](https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/december/conclusion-ustr%E2%80%99s-investigation), (2 December 2019) (available at: <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/december/conclusion-ustr%E2%80%99s-investigation>).

⁹³ See e.g., Arizona (ARS § 1168); Arkansas (Ark. Code Ann. § 15-4-2708(c)); California (Cal. Rev. & Tax Code §§ 17052.12 and 23069); Colorado (Conn. Gen. Stat. § 12-217n and Conn. Gen. Stat. § 12-217); Delaware (Del. Code Ann. tit. 30 § 2070); Florida (Fla. State. § 220.196); Georgia (Ga. Code Ann. § 48-7-40.12.); Hawaii (Haw. Rev. Stat. § 235-110.91); Illinois (35 ILCS 5/201(k)); Indiana (Ind. Code Ann. §§ 6-3.1-4-1 to -7); Iowa (Iowa Code Ann. §§ 422.10 and 422.33); Kansas (Kan. Stat. Ann. § 79-21, 182b(a)); Louisiana (La. Rev. State. Ann. § 47-6015); Maine (Me. Rev. Stat. Ann. tit. 36, § 5219-K and Me. Rev. Stat. Ann. tit. 36, § 5219-L); Maryland (Md. Code Ann., Tax-Gen. § 10-721(b)); Massachusetts (Mass. Gen. L. ch. 63 § 38M); Minnesota (Minn. Stat. § 290.068); Nebraska (Neb. Rev. Stat. § 77-5803(1)); New Hampshire (N.H. Rev. Stat. Ann. § 77-A:5.XIII.); New Jersey (N.J. Rev. Stat. § 54:10A-5.24); New Mexico (N.M. Stat. Ann. § 7-9F-5); North Dakota (N.D. Cent. Code § 57-38-30.5); Ohio (Ohio Rev. Code Ann. §§ 5733.352 and 5751.52); Oregon (Or. Rev. Stat. § 317.154(3)); Pennsylvania (72 Pa. Stat. § 8703-B); Rhode Island (R.I. Gen. Laws § 44-32-3); South Carolina (S.C. Code Ann. § 12-6-3415); Texas (Tex. Tax Code Ann. § 171.651); Utah (Utah Code Ann. § 59-7-612); Vermont (Vt. Stat. Ann. tit. 32 § 5930ii); Virginia (Va. Code Ann. § 58.1-439 12:08 and 12:11); West Virginia (W. Va. Code §§ 11-13Q-1 through -22); Wisconsin (Wis. Stat. §§ 71.07(4k)(b)(4), 71.28(4)(ad)(4), 71.47(4)(ad)(4)).

A. Sales tax on data processing

Generally, states impose a sales tax on (i) all sales of tangible personal property, unless explicitly exempted, and (ii) sales of specifically enumerated services. While states have historically imposed the sales tax on the tangible results of data processing (*e.g.*, reports or other tangible outputs), a growing number of states have extended their traditional sales tax base to include data processing services. For example, Connecticut imposes a sales tax on “the sale of all tangible personal property sold at retail or from the rendering of any services constituting a sale in accordance with subdivision (2) of subsection (a) of section 12-407....”⁹⁴ For this purposes, the term “services” is defined to include “computer and data processing services, including, but not limited to, time, programming, code writing, modification of existing programs, feasibility studies and installation and implementation of software programs and systems even where such services are rendered in connection with the development, creation or production of canned or custom software or the license of custom software, but excluding digital goods”.⁹⁵

A pre-condition to imposing these sales and use taxes tends to be that the provision of digital processing services is a core component of the business.⁹⁶ In *Hegar v. CheckFree Services Corp.*, the court discussed the breadth of what constitutes taxable “data processing services” in Texas. Although the Texas Comptroller had traditionally taken a broad view, the Texas Court of Appeals rebuked this interpretation and narrowed the scope of what constitutes taxable “data processing services”.⁹⁷ Specifically, the court held that under Texas law, “data processing services” means “the processing of information *for the purpose of* compiling and producing records of transactions, maintaining information, [or] entering or retrieving information,” and “word processing, data entry, data retrieval, data search, information compilation, payroll and business accounting data production, . . . [or] other computerized data and information storage or manipulation.”⁹⁸ Furthermore, the court held that sales and use tax shall not be due, even if the transaction involves data processing services provided that such services are ancillary to the provision of professional services that are not otherwise subject to sales and use tax.⁹⁹ Thus, the provision of data processing services may be subject to sales and use tax under local law, but only if the “essence of the transaction” involves the provision of data processing services.

B. Sales tax on information services

In addition to taxing data processing services, states have moved towards taxing information services. For example, in New York, sales tax is imposed on the “furnishing... of an... information service... delivered by means of telephony or telegraphy or telephone or telegraph service” and which would “otherwise be subject to taxation” as the sale of tangible personal property “if it were furnished by printed, mimeographed or multi-graphed

⁹⁴ Conn. Gen. Stat. § 12-408(1)(A).

⁹⁵ Conn. Gen. Stat. § 12-407(37)(A).

⁹⁶ *Hegar v. CheckFree Servs. Corp.* (Tex.Ct.App. Apr. 19, 2016, No. 14-15-00027-CV) 2016 Tex. App. LEXIS 4039.

⁹⁷ *Id.* at *13-14.

⁹⁸ *Id.*

⁹⁹ *Id.* at *14.

matter.”¹⁰⁰ However, New York distinguishes between taxable information services and the provision of information that is “personal or individual” in nature.¹⁰¹

C. *Digital service tax / Digital ads tax proposals*

A growing trend among states has been the proposal of a digital services tax. As of May 2021, twelve digital ad tax bills had been introduced across nine states with nine bills in six states still pending and only one adopted. Maryland has adopted a new gross receipts tax on “digital advertising services” within the state, including banner and search engine ads, website or application ads, and ads within a piece of software.¹⁰² For purposes of this law, “digital advertising services” were defined to include “advertisement services on a digital interface, including advertisements in the form of banner advertising, search engine advertising, interstitial advertising and other comparable advertising services.”

D. *Data tax proposals*

New York has had four different data taxes proposed, the latest in March 2021. However, to date, none have made significant progress.¹⁰³

On 11 February 2020, House Bill 4898 was introduced in West Virginia, and proposed “a general data mining service tax.”¹⁰⁴ The legislative findings noted that “Companies are already sitting on a diamond mine of data waiting to be turned into revenue” and “[d]ata mining essentially extracts information database users were not aware of and presents it in actionable format. It predicts customer behavior and, applied properly through campaign management software using advanced statistical, numerical and multivariate techniques, can directly target consumers on an individual basis.”¹⁰⁵ Thus, the bill reasoned that a general data mining service tax is necessary to compensate the citizens of West Virginia for the use of their data by entities for proprietary purposes. The bill died in committee.

¹⁰⁰ N.Y. Tax Law § 1105(c)(9)(i).

¹⁰¹ *Wegmans Food Markets, Inc. v. Tax Appeals Tribunal*, 33 NY3d 587 (2019) (sale of information was not excluded from sales tax as information that was personal or individual in nature because it was “derived from a non-confidential and widely accessible source, the supermarket shelves of [taxpayer’s] competitors”).

¹⁰² Maria Eberle, Lindsay LaCava and Mark Yopp, *Maryland Passes Digital Advertising Gross Revenues Tax after Overriding Veto*, SALT SAVVY BLOG, BAKER MCKENZIE (12 February 2021) (available at: <https://www.saltsavvy.com/2021/02/12/maryland-passes-digital-advertising-gross-revenues-tax-after-overriding-veto/>).

¹⁰³ *Supra* note 137.

¹⁰⁴ Data Mining Service Tax, H.B. 4898, W. Va. Reg. Session, art. 29 (2020) (available at: http://www.wvlegislature.gov/Bill_Status/bills_text.cfm?billdoc=HB4898%20INTR.htm&yr=2020&sesstype=RS&i=4898).

¹⁰⁵ *Id.*

Part Six: Tax accounting

6.1. Recognition of transactions

The rules of income and expense recognition should apply regardless of the subject matter of the transaction, *i.e.*, income and expenses from data transactions are subject to the usual “all events test” in sections 451 and 461.

6.2. Capitalization and amortization

Section 197 of the Code governs the amortization of certain intangible assets, specifically any “amortizable section 197 intangible”.¹⁰⁶ To be amortizable, the intangible must have been “acquired” by the taxpayer and held in connection with a trade or business.¹⁰⁷ “Self-created” intangibles are excluded.¹⁰⁸

The term “Section 197 intangible” lists various items that might be considered to include data (in the form of raw data, data sets or databases). Most relevant for present purposes are “intangible items,” including:

- goodwill,
- business books and records, operating systems, or any other information base (including lists or other information with respect to current or prospective customers),
- any patent, copyright, formula, process, design, pattern, knowhow, format or other similar item,
- any customer-based intangible, and
- any other similar item.

Section 197 proceeds to clarify the phrase “customer-based intangible” to include (i) composition of market; (ii) market share, and (iii) any other value resulting from future provision of goods or services pursuant to relationships (contractual or otherwise) in the ordinary course of business with customers. Conceivably, data may be considered to be an information base (including lists or other information with respect to current or prospective customers). In addition, copyright or “similar items” might include copyrighted databases and copyrightable data, which are discussed in further detail in the Introduction of this report.

Lastly, the customer-based intangible item might be considered to refer to data derived from retailers that track consumer purchasing information. However, data of users of online platforms or members of online communities is tracked regardless of whether they make purchases, and there is reason to think that non-buying users are not necessarily “customers”. Similarly, data and databases to effect targeted advertisements may not benefit from the section 197 accounting treatment if the term “customer-based intangible” is interpreted narrowly, referring only to existing customers of the business. Even if such user data is not an amortizable customer intangible it still might fall into the category of goodwill. In all cases, as noted above, the data-related “intangible” would have to be “acquired” rather than “self-created”.

¹⁰⁶ I.R.C. § 197(a). Amortization is allowed on a straight-line basis over a 15-year period, beginning in the month in which the intangible asset was acquired.

¹⁰⁷ I.R.C. § 197(c)(1).

¹⁰⁸ I.R.C. § 197(c)(2).

Summary and conclusions

The purpose of this report is to analyse the incipient phenomenon of data-driven transactions, both from a domestic and an international perspective. This topic is both current and complex, provided that – as it happens in the Uruguayan case – the speed with which this type of businesses developed, taking a leading role in the economy, has not yet allowed the amendment of the legal framework (including the tax framework) to take fully into account the different modalities in which such transactions can be performed.

We will start by presenting the main “non-tax” domestic legislation with an impact on this topic. In particular, after framing the concepts of data and big data, we will focus on the current regulations on personal data protection, as well as on those of copyright, which comprise software protection.

Later we will aim to characterize the different types of data transactions involved, with the intent to resolve its tax treatment. In general terms, the three main categories of businesses that we identify are: (i) data transfer; (ii) data analysis services; and (iii) entitlement to use data and information for a time period.

The above will help to frame those transactions within the tax legislation in force – which does not have a specific solution for these businesses –, and then focus on the issue of source and nexus, which is very complex for any type of transaction in the digital economy, where geolocation of production factors is extremely difficult.

In the second part of the report, we will focus on international taxation and, in particular, on the application of tax treaty principles derived from the conventions entered by Uruguay. In this section we will emphasize the authority-to-tax distribution rules, with special reference to the permanent establishment case (and, in particular, the services permanent establishment).

The third part of the report will focus on transfer pricing legislation and the complexity in the application of its principles and rules to data-based transactions. An interesting aspect of this chapter is a recent judgment of the Administrative Claims Court, in which the tax authority relied on DEMPE functions to support its position in determining the place of value creation.

The fourth part of the report highlights the existing special tax regimes, such as incentives regarding corporate income taxation for software development activity and

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related services. It also refers to the so-called digital services tax, extended internationally but still without reception in our country, notwithstanding the regulations in force under the income tax law for some specific digital transactions that we will examine in detail.

The fifth part of the report is centred around indirect taxation. We will explain current solutions regarding Value Added Tax to determine the taxable event and point out a number of provisions – particularly in relation to services exports – that are of interest for the present report as they are related to digital services.

In the sixth part of the report, we will concentrate on the tax accounting aspects related to data-based transactions, with a special focus on intangible assets recognition and depreciation rules.

Finally, and to close the report, we will analyse some aspects of the cases proposed by the general reporter, in order to illustrate the different points developed throughout the report.

The above mentioned are aspects on a current and living topic, and even though the present report is a first general approach to it, we can conclude that the legal framework (including the tax one) still needs to adapt its rules to these new data-intensive businesses, in order to be able to offer specific and adapted responses to this challenging scenario, in which doubts prevail over certainties.

Introduction: Legal background

The dynamics and speed with which new technologies and related businesses evolve, place the legal system in front of a clear challenge. Times for the understanding and latter enactment of legal regulation for these new phenomena are noticeably slower than the rhythm at which they move. Therefore, it is increasingly common to face situations not foreseen by the legislation – at least explicitly – or needing to try to frame new problems in old solutions.

To adequately address the topic on which we will focus, we first approach a definition of big data and data transactions. As indicated by the directives used for this national report “big data” is neither a legal nor tax term, and usually refers to projects, software, services or business functions that involve collecting, systematizing, structuring and analysing vast information. In our country, BELLOCHIO has defined it as the “term applied to big sets of data characterized by the famous 3Vs of the analyst Doug Laney: volume, velocity and variety, which exceed the capacity of the common software to be captured, managed and processed”.³ It is worth noting that, currently, there seems to be a consensus that there would be at least “2Vs” more to define big data: veracity and value.⁴

Additionally, with respect to the concept of data business or data transactions, and notwithstanding referring to what is indicated in section 1.2. below, we can point out that it is any business through which it is allowed any kind of use or transfer of data under various modalities.

The abovementioned leads us to briefly introduce the existing legal framework

³ BELLOCCHIO, Lucía: “*Big Data en el Sector Público*”, in (various authors): “*Estudios de Información Pública y Datos Personales*”, Volume III, Coordinated by SCHIAVI, Pablo, School of Law, University of Montevideo, 2019, p. 22.

⁴ For example, it can be consulted: <https://www.itop.es/blog/item/que-son-las-5-v-big-data-que-beneficios-pueden-aportar-a-tu-negocio.html>. Date consulted: 15 October 2020.

protecting the information that can potentially be collected and used under this new type of transactions, as well as the legislation that grants intellectual property rights related with these phenomena.

Specifically, we can highlight as the most relevant legislation in this area, those referring to personal data protection and software rights under copyright protection.

The personal data protection regulations in Uruguay (Law No. 18,331 of 11 August 2008, and regulatory decree No. 414/009) explicitly recognize as human right the protection of personal data and, in this sense, establish the ways and conditions in which data can be collected, processed and communicated between different persons. As stated by DURAN MARTÍNEZ ‘the law followed here the most modern trends that have been imposed in the world, both in the international arena as well as in most advanced national states. It considered the right to data protection an autonomous right, inherent to the human personality, that is, a human right, notwithstanding, naturally, its instrumental character’.⁵ Among various relevant aspects that it regulates, article 6 of the abovementioned law provides that databases are legal only to the extent that they are registered before the control body⁶ and that the purpose of the bases does not violate human rights, the laws and the public moral.

It is worth noting that the law establishes the principle of “purpose”,⁷ which implies that the data cannot be used for a different or incompatible purpose than the one for which it was obtained and that it should be deleted once it is not necessary for the original purpose.

Another basic principle of the regulation is the one of prior informed consent,⁸ by which the processing of personal data is conditioned to the owner having given “free, prior, express and informed” consent, “which must be documented”. Notwithstanding, the rule establishes exceptions to the need for such consent, in relation to: a) data obtained from public sources; b) data collected for the exercise of government functions or by virtue of a legal obligation; c) lists in which data is limited – in the case of natural persons – to: (i) names and surnames; (ii) identity document; (iii) nationality; (iv) domicile; and (v) date of birth; and – in the case of legal entities – to: (i) company name; (ii) brand name; (iii) registration in the tax registry; (iv) domicile; (v) telephone; and (vi) persons in charge of the entity; d) data derived from a contractual, scientific or professional relationship of the owner necessary for its development or fulfilment; and e) databases developed by natural persons for their exclusive personal, individual or domestic use.

An additional element to note is related to data privacy. In this sense, article 11 of Law No. 18,331 establishes that persons (natural or legal) who legitimately obtain information from a database to which they provide treatment⁹ “are obliged to use it in a reserved and exclusive way for the usual operation of their business or activity, being prohibited any dissemination of it to third parties”.

⁵ DURÁN MARTÍNEZ, Augusto: *‘Derecho a la protección de datos personales y al acceso a la información pública. Habeas Data’*, 2nd edition, updated and expanded, Amalio M. Fernández, Montevideo, 2012, p. 43.

⁶ Such control body is the Personal Data Regulation and Protection Unit (*Unidad Reguladora y de Protección de Datos Personales*).

⁷ Art. 8, Law No. 18,331.

⁸ Art. 9, Law No. 18,331.

⁹ According to art. 4, section M) of Law No. 18,331, treatment is understood as “operations and systemized processes, whether automatized or not, that allow the processing of personal data, as well as the transfer to third parties through communications, queries, interconnections or transferences”.

Another point to mention, in this brief review of the legislation – since it involves some kind of commercialization – is the legal provision contained in article 21 of Law No. 18,331 regarding data collection for advertising purposes. Said provision establishes that, in the collection of addresses, distribution of documents, advertising, commercial prospecting, sale or other similar activities, data that is suitable to establish specific profiles for promotional, commercial or advertising purposes or allow the establishment of consumption habits, can be treated when it appears in documents accessible to the public or has been provided by the owners or obtained with their consent.

Finally, and more recently, Law No. 19,924 of 18 December 2020 incorporated biometric data¹⁰ as part of the data subject to the protection of the Law of Personal Data Protection (article 18-BIS), establishing that this data can only be processed after an impact assessment on the personal data protection.

As previously mentioned, the other relevant set of rules for this report are those that establish copyright protection for software (in particular, Law No. 9,739 of 17 December 1937, and its amendments). This law establishes the legal protection of copyright on all “literary, scientific or artistic” creation. Although it is a rule that dates back to 1937, Law No. 17,616, of the year 2003, explicitly established the protection for “computer programs, whether source programs or object programs; data compilations and of other materials, in any form, that for reasons of the selection or configuration of their contents constitute creations of an intellectual nature. This protection does not cover the data or materials themselves and is understood without prejudice to any copyright that subsists with respect to the data or materials contained in the compilation. The expression of ideas, information and algorithms, as long as it is formulated in original sequences arranged appropriately for use by an information processing device or of automatic control, is protected in the same way”. This provision, together with a previous regulatory decree (No. 154/989 relating to the registry of protected works) somehow settled the conceptual debate that BUGALLO refers to, regarding whether this type of programs should be protected “by the copyright system, by the patent system or by a *sui generis* system”.¹¹ In Uruguay, it is clear that the software has the protection corresponding to copyright.

Before entering into the tax analysis, it should be mentioned that, even when in other areas of law -different from tax law- a transaction is prohibited or void, this will not affect the existence and enforceability of the tax obligation.

This is based on what is established by the third paragraph of article 14 of the Uruguayan Tax Code, which indicates that the existence of the tax obligation “will not be affected due to circumstances relating to the validity of the acts or contracts or the nature of the objective pursued by the parties in these, nor by the effects that the taxable facts or acts have in other areas of law, or by the agreements celebrated by private parties”.

¹⁰ Art. 4, section ñ) of Law No 18,331 defines such data as those obtained “from a specific technical treatment, related to physical, physiological or behavioural characteristics from a natural person that allow or confirm a unique identification of such person such as dactyloscopy information, face recognition or voice recognition”..

¹¹ BUGALLO, Beatriz: “*La Propiedad Intelectual en el Uruguay*”, online edition, 2019 review, pp. 127 and onwards. Available at: https://issuu.com/beatrizbugallomontano/docs/manual_pi_2019. Date of consultation: 15 October 2020.

Therefore, we must point out that any transaction of any nature based on “data”, may generate tax effects even if it is not a valid legal business for private law.¹²

Part One: Basic principles: Character, source and nexus

The purpose of this part is to provide a tax regulatory framework for this type of transactions, according to existing rules – which do not regulate them specifically – and the principles applicable on this matter.

1.1. General overview

The Uruguayan legal system does not foresee specific legislation regarding data transactions. Consequently, it is necessary to resort to general solutions and principles that arise from the standards outlined in the previous section of this report and, especially, those that come from Law No. 18,331 on Personal Data Protection and its regulations, particularly with regard to the restrictions that exist on the use of personal data collected from third parties. Similarly, the tax treatment will not derive from specific solutions devised for these operations, but from pre-existing general solutions under the taxes in force in our country. As RAMÍREZ points out, “[e]xcept for some isolated provisions, the Uruguayan tax legislation lacks rules that, explicitly refer to electronic transactions”.¹³

1.2. Character

Given the aforementioned absence of a specific tax regulation, first of all it is necessary to succinctly determine – in general terms – what kind of big data application-based transactions we may encounter.

In this sense, and notwithstanding different variants and nuances that could exist, we will focus on these three hypotheses: (i) trade of collected data, either structured or not; (ii) big data analytics services, this is to say, not the transfer of the data per se, but the advice and assessment on the information emerging from it; and (iii) the right to use said information or the access to the databases that contain the data for a specified time and under certain terms and conditions.

Although these transactions do not have a specific regulation, it is possible to conceptually fit them within definitions already existing in our current positive income

¹² See: VALDÉS COSTA, Ramón, VALDÉS DE BLENGIO, Nelly and SAYAGUÉS ARECO, Eduardo: “Código Tributario de la República Oriental del Uruguay. Comentado y Concordado”, 5th edition, Fundación de Cultura Universitaria, Montevideo, 2002, pp. 245 and onwards. FAGET, Alberto: “El Principio de Non Olet en Materia Tributaria”, in Law Review N° 17, University of Montevideo, Montevideo, 2010, available at: <http://revistaderecho.um.edu.uy/wp-content/uploads/2012/12/Faget-El-principio-de-non-olet-en-materia-tributaria.pdf>. Date of consultation: 15 October 2020.

¹³ RAMÍREZ, Guzmán: “La experiencia uruguaya en materia de impuesto a la renta en el marco de la economía digital”, in Tax Review (IUNET), Volume XLIV, number 261, Montevideo, 2017, p. 951.

tax system.¹⁴ In this way, and depending on the type of transaction under analysis, we can resort to the provisions relating to the transfer of intangible assets on the one hand, to provisions that regulate any type of business that allows the use of said goods for a period of time on the other hand, and finally to provisions that refer to services, as we notice that there are transactions related to data that could fit into this typology.

Following this line, it is possible to resort to the definitions of income derived from a transfer (*incremento patrimonial*) and income derived from movable capital (*rendimiento de capital mobiliario*) – both considered pure capital income – of the IRPF, which apply by express provision to the IRNR.¹⁵ In turn, although the IRAE does not foresee definitions of this type, the ones indicated above can be resorted to through analogic integration.¹⁶

Regarding “income from movable capital”, articles 10 and 16 of the IRPF law conceptualizes this subcategory of the category “capital income”, as that applicable to income derived “directly or indirectly from [movable] equity elements, assets or rights, whose ownership corresponds to the taxpayer...”. This category explicitly includes, among others, income from leases, subleases, incorporation or assignment of rights to use or enjoy, of “intangible assets such as goodwill, trademarks, patents, industrial models, copyright, athletes’ federative rights, royalties and similar”.¹⁷

Meanwhile, article 17 of IRPF law defines “income from transfers”, – the other subcategory within the category of capital income, and that focuses on income from the sale or transfer of assets – such as those that originate in the “disposal, promise of disposal, cession of promise of disposal, cession of hereditary rights, cession of possession rights and in the declarative sentence of acquisitive prescription, of tangible or intangible goods”.

As can be seen, along with contemplating both subcategories of businesses on intangible assets, the line between one and the other would be determined by whether the purpose of the business is the final transfer of such assets or if, on the contrary, it is the concession of its use or exploitation for a certain time. This criterion seems to be included in the Consultation N° 5.084¹⁸ of the General Tax Directorate (“DGI” as per the Spanish abbreviation, *Dirección General Impositiva*) that, to the question on how certain payments for licenses to use software should be taxed, it referred to the nuance between a license

¹⁴ Briefly, it can be said that, in Uruguay, there are three general income taxes: the Corporate Income Tax (“IRAE” as per the Spanish abbreviation, *Impuesto a las Rentas de las Actividades Económicas*), the Natural Persons Income Tax (“IRPF” as per the Spanish abbreviation, *Impuesto a las Rentas de las Personas Físicas*) and the Non-Residents Income Tax (“IRNR” as per the Spanish abbreviation, *Impuesto a las Rentas de los No Residentes*). IRAE taxes residents -and non-residents acting through a permanent establishment- for their business income, as well as certain income equated to business income due to the regularity in the sale of real property and also some income comprised *a priori* in the IRPF that enter -mandatorily or by option of the taxpayer, depending on the case- in the IRAE. IRPF taxes natural persons residing in Uruguay with a schedular system of two categories. Category I taxes income derived from capital, while category II taxes income derived from work. Finally, IRNR taxes Uruguayan source income obtained by non-residents that do not act through a permanent establishment in Uruguay. To these three general taxes, a fourth income tax should be added which is the Social Security Assistance Tax (“IAS” as per the Spanish abbreviation, *Impuesto de Asistencia a la Seguridad Social*), applicable on income coming from pensions and retirement.

¹⁵ Art. 2, Title 8 of the 1996 Ordered Text (hereinafter “T.O.” as per the Spanish abbreviation, *Texto Ordenado*). It is worth mentioning that art. 3 of the decree No. 149/007, that regulates IRNR, indicates that -for non-resident entities different from natural persons- all services are considered business income.

¹⁶ Art. 5, Tax Code.

¹⁷ Art. 16, s. A), Title 7 of the T.O.

¹⁸ Of 17 March 2009.

in the pure sense (temporary use in exchange for a price, to be treated as income from movable capital)¹⁹ and those cases in which, along with the software – in perpetuity –, the equipment in which the software must be implemented was inexorably provided (such as in a telecommunications equipment), in which case it is understood that it consisted of the sale of a good.

We understand that, given their extent, with these definitions it would be possible to frame two of the three “model transactions” defined above. Thus, the “sale” of raw or systematized information, making the information at the definite disposal of the acquirer, can reasonably be characterized as originating income from a transfer. For its part, the temporary right to use the information in any state in exchange for a price, could without major hesitations be framed as originating income from movable capital, as long as it relates to the use or right to use, in exchange for a price, an item of property of the taxpayer.²⁰

Characterization then remains of those transactions related to data that may be considered services (defined above as those cases which provide an analysis or study of the information collected and systematized). In that sense, it is highly probable that the transaction cannot be classified as the provision of a personal service in the pure sense since there is an extremely relevant presence of the capital factor and not merely ancillary. This would lead us to the combination of capital and labour and, therefore, to the classic definition of business income defined under the IRAE law.²¹ If we were to visualize the transaction as the provision of a personal service, the definition under the IRPF seems to be much more adjusted than that of a general and residual nature applicable in the field of Value Added Tax (basically, any onerous transaction that does not involve the transfer of a good).

Under the IRAE – for local companies or non-residents with a permanent establishment – these nuances, regarding the framing of the type of income, may have less relevance under domestic legislation, as all Uruguayan source income is covered, without the need to categorize it.²² However, the determination of whether the activity combines capital and labour may be relevant to the effects of identifying the source, considering whether all or part of the assets, or labour, are outside of Uruguay.

As it is developed in the following part, it should be considered that, despite the relative internal relevance of characterization, this has notorious importance in terms of the application of tax treaties.

¹⁹ Strictly speaking, the consultation refers to the “provision of a service in our country”. In this sense, it can be argued that it is a service, even when it is highly associated to a capital factor, and that it is absolutely compatible with the definition of income from movable capital. In fact, an income derived from the economic exploitation in Uruguay of a right is, therefore, a Uruguayan-source income.

²⁰ However -on a case-to-case basis- it can be highly arguable, from a private law perspective, if we are really in front of a “good” and if such element is subject to property rights. However, economically it can be convened that we are in such case.

²¹ Understood as: “industrial, commercial and services lucrative activities, performed by companies. It is considered a company any productive unit that combines work and capital to obtain an economic result, intermediating in the sale of goods or in the provision of services” (art. 3, s. B, Title 4 of the T.O.).

²² Leaving aside possible incidences in tax quantification, for some taxpayers.

1.3. Source

Historically, the Uruguayan tax system has followed the territorial source criterion. However, during the last decade there has been a gradual growth of exceptions to this rule within the various income taxes in force.²³ This does not prevent us from affirming that, at least in terms of the IRAE and the IRNR, the territorial criterion of taxation is still predominantly anchored in the source of production.

Income taxes in force in the country define Uruguayan source income as that coming “from activities carried out, goods situated or rights economically used in the country, regardless of the nationality, domicile or residence of those who intervene in the transactions and the place where legal businesses are closed”.²⁴

Regardless of the legal exceptions to the source criterion, it should be noted that conceptually, income taxes in Uruguay are not exclusively levied on income that can be classified as 100% of Uruguayan source, but also on income that can be considered “partially” of Uruguayan source -and on the Uruguayan source portion -, in view of coming from the combination of factors of production (capital and labour) partially applied in the country.²⁵

However, notwithstanding having a general definition of territorial source within income taxes in Uruguay, this does not prevent the reality to be more complex, positioning ourselves in situations of difficult clarification, where the valid answers could be more than one. And these situations have not arrived with the digitalization of the economy, although this phenomenon may have intensified them even more. To determine the source of a dividend, a royalty, of a transfer of an intangible asset or the interest of a financial transaction²⁶ is still a tax policy option, rather than an empirical verification

²³ In this sense, starting from 2011, the income derived from certain movable assets located abroad (not sale) is taxed for the case of natural resident persons (Law No. 18,718). In that same year, source was “extended” for income obtained abroad by resident workers employed by local employers, as well as technical independent services rendered by natural persons from abroad, to the extent that the recipient was an IRAE taxpayer and that the services were related to income subject to IRAE (Law No. 18,719). In 2015 the treatment of technical services (taxed independently from where they are performed to the extent that the recipient of the service is an IRAE taxpayer and that the service is related to income subject to IRAE) was extended to advertising and propaganda services rendered abroad (Law No. 19,355). That same year and through the same law, income derived from any business of use, lease, authorization of use, or transfer of federative rights, image rights and similar of sportspersons and the income derived from mediation or intermediation activities, are considered of Uruguayan source provided that the sportsperson was registered in a Uruguayan entity, notwithstanding where the transaction was closed. In 2017 (Law No. 19,479), the tax treatment of financial derivatives was defined, and it was based exclusively on the residence of the party resorting to the instrument.

²⁴ This definition can be found in Titles 4 (IRAE), 7 (IRPF) and 8 (IRNR) of the T.O.

²⁵ This is the case of the so-called “international source income” (art. 48, Title 4 of the T.O. and art. 13, Title 8 of the T.O.) for international transport; production, distribution or intermediation in movies, tapes and live tv broadcasts; the ones of international news agencies; the transfer of use of containers for international trade transactions; the ones obtained in the mediation and intermediation in the demand or supply of services rendered through the internet, digital platforms, apps or similar. A different case, but that showcases the taxability of income “partially” of Uruguayan source, is the international trading regime contemplated in DGI’s Resolution No. 51/997, where it is stated that 3% of the gross margin is considered as of Uruguayan source, when the goods or services do not have Uruguay as origin nor destination.

²⁶ In Uruguay’s case, the following criteria has been peacefully applied, even there is no explicit legal provision in such sense: (i) the domicile of the company to determine the source of a dividend and of a transfer of the shares; (ii) the place of exploitation for intangible assets; and (iii) the debtor’s domicile for the source of income from loans.

of the reality, as it can happen in the case – for example – of the income of a traditional manufacturer.

Given the difficulty of determining the source in these cases, establishing a solution based on the place of “consumption” or “destination” of said data transaction could be an effective alternative to establish an objective criterion from a practical point of view. Uruguay has already experience in this sense for other types of digital economy transactions and such rules can guide future solutions in relation to other businesses.

In effect, in the case of mediation or intermediation in the supply or demand of services, provided through the Internet, technological platforms, computer applications, or similar, the focus is placed on the location of those intervening in the underlying – or “principal” in the terms of our legislation – transaction (not on the digital intermediary). In this sense, if both parties are in the country, the income will be deemed 100% of Uruguayan source, while, if one of them is considered situated abroad, the Uruguayan source income will be 50%.²⁷ For the provision through the same channels of audio-visual content transmission services, the income will be considered 100% of Uruguayan source if the recipient is in Uruguayan territory. In other words, the connection factor is established in the “place of consumption” of the digital service.

1.4. Nexus

When we refer to “nexus”, we are indicating the relevant elements that the statutory system takes into consideration in order to cover with the tax system – in this case, that on income – a certain transaction. Domestic law does not foresee a threshold in this regard. In effect, as long as there is Uruguayan source income, this will be subject to tax. The figure of the permanent establishment as a nexus for taxation in domestic legislation will be addressed in the next section.

Part Two: Application of treaty principles

2.1. General overview

Tax treaties to avoid double taxation (“DTAs”) entered by Uruguay²⁸ are based in general terms on model conventions from the Organization for Economic Cooperation and Development and the United Nations Organization (“OECD MC” and “UN MC”, respectively), the distribution of taxing rights between the contracting states therefore depending on the characterization of the item of income in question.

For business income, the distributive rule based on the criterion of residence and the concept of permanent establishment (“PE”) provided in both models (articles 5 and 7) represent a clear restriction to the exercise of the power to tax based on Uruguayan domestic legislation. Indeed, internally, the adoption of the source principle and a broad conception of

²⁷ Art. 48, Title 4 of the T.O., and art. 13, Title 8 of the T.O.

²⁸ See list of conventions ratified by Uruguay in: <https://www.mef.gub.uy/10222/8/areas/acuerdos-en-materia-tributaria.html>. Date of consultation: 15 October 2020.

domestic source income, means that whenever a non-resident obtains income of Uruguayan source – whatever the nature of this – will be subject to tax in Uruguay, either IRAE or IRNR, depending on whether or not a PE is verified in the country. Indeed, the figure of PE plays a different role in domestic legislation than the role played under the OECD and UN MC and the DTAs signed by Uruguay, that is, the attribution of the right to tax to a jurisdiction other than that of residence. In this regard, it should be noted that the internal definition of PE is based, in general, on the OECD MC definition.²⁹ However, it does not contemplate the recent changes introduced in both models based on the recommendations of Action 7 of the OECD/G20 BEPS Action Plan, “Preventing the artificial avoidance of permanent establishment status”.

Regarding royalties, it is worth mentioning that all DTAs subscribed by Uruguay provide a shared attribution of taxing rights between both contracting states, although limited at source and, therefore, in many of these DTAs a broad concept of royalties was intended to be included.³⁰

2.2. Detailed comments

In response to the aforementioned limitation regarding business income, in the negotiations of its DTAs Uruguay has tried to introduce specific provisions that enable the exercise of taxing rights at source beyond the configuration of a fixed place of business.

In general, the Uruguayan network of DTAs³¹ includes the so-called “services PE”, that is, the hypothesis from which the provision of services through employees or other personnel hired by the non-resident enterprise during a certain period time – variable, according to the DTA – configures a PE.

On the other hand, most of these DTAs³² include within the concept of royalties the rental of equipment (“the use of, or the right to use, industrial, commercial or scientific equipment”), in line with the UN MC. Likewise, the concept of royalties in the DTAs with Chile and Ecuador include the phrase “use or concession of use of any other means of image or sound reproduction”.³³

The DTAs with Hungary, India, United Arab Emirates, Vietnam, Chile, Paraguay and Brazil include a specific distributive rule for fees for “technical services”, comprehensive of services of a “technical, managerial/administrative or consulting” nature.

This type of provisions enables, fully or partially, the exercise of taxing rights at source, regardless of the configuration of the traditional concept of PE (fixed place of business). However, *a priori*, we visualize limitations for the application of those provisions to data

²⁹ However, there are some parts inspired on the UN MC, like the “services PE” case and not including the “delivery of goods” in the so-called “negative list”.

³⁰ However, it should be noted that the DTA with Switzerland establishes that as long as Switzerland does not impose a tax at source on royalties paid to non-residents, shared distribution of taxing rights will not apply and the right to tax will be assigned exclusively to the residence jurisdiction.

³¹ Except for the DTAs with Hungary, Germany, Spain, Switzerland and Portugal.

³² Except for the DTAs with Germany, Switzerland, Portugal, Republic of Korea, Singapore, United Kingdom and Japan.

³³ In relation to this, and regarding the application of the DTA between Chile and Uruguay to a payment for the broadcasting rights of a tv signal, Statement No. 3,193 of 31 December 2009, issued by Chile’s Sub-direction of Internal Taxes Services, can be of interest.

transactions described here, transactions with a high degree of automation, an absence of the human factor and based on the use of intangibles.

Part Three: Transfer pricing

3.1. Application of transfer pricing principles

Transfer pricing (“TP”) legislation was introduced in Uruguay by Law No. 18,083 of 17 December 2006 and, although brief, it in general follows international standards set forth in the OECD Guidelines.

Uruguayan legislation does not contain any provision that explicitly addresses the application of the TP regime to data-driven business models, in which certainly, valuable intangibles for which it is difficult to find comparable assets, are involved. In this sense, it should be noted that legislation foresees, among others, the profit split method.³⁴

However, it should be noted that in the judgment of the Administrative Claims Court (“TCA”, as per the Spanish abbreviation, *Tribunal de lo Contencioso Administrativo*) No. 786 of 12 December 2019 – although it refers to the application of the TP regime to a royalty payment for the use of “trademarks” – the tax authority cites in its argumentation the so-called “DEMPE functions” (development, enhancement, maintenance, protection, exploitation) and its relevance for determining the place of “value creation” by indicating that the local taxpayer: “uses assets, takes risks, develops, enhances, protects and exploits the intangible, so for transfer pricing purposes the right to preserve the income obtained from the use of the intangible, is not assigned to the owner of the trademark, but to the person who carries out such activities”.

Part Four: Special regimes

4.1. General overview

Uruguay has no special regime applicable to the development and sale of goods or services based on big data. However, it would be possible that the development of this type of businesses can benefit from the IRAE incentives that are mentioned below.

³⁴ In order to determine the price of an operation covered by the TP regime, Uruguayan regulations set forth that the method to be employed should be the one most suitable with the kind of transaction being analysed, indicating as possible methods, aligned with the OECD’s Directives the following: comparable prices between independent parties, resale prices between independent parties, cost plus benefit, profit split and transaction net margin. For imports and exports of goods with public prices in transparent markets, Uruguayan regulations include specific methodology.

4.2. DST

The “digital services tax” or “DST” has been the solution, with variations, proposed and even implemented by different countries. In general, a DST aims to recognize user’s contribution to value creation and is comprehensive of business models strongly based on the acquisition or use of user data such as social networks and search engines, of which the source of income mainly derives from online advertising and/or the sale of data, and even online intermediation platforms in goods and services. Uruguay has not introduced a tax of this type and so far, neither has the government stated its intention to do so.

In fact, there is a specific provision within the income tax legislation, in force since 1 January 2016, for the taxation of income obtained for the provision of advertising and propaganda services³⁵ abroad, based on a diverse foundation. While a DST-type tax would tax the income obtained by advertisement displayed on a digital interface, in the jurisdiction where the advertisement is viewed, the Uruguayan legislation adopts a different approach of erosion of the tax base. Indeed, it considers as income of Uruguayan source (“extension” of source of income) that obtained for advertising and propaganda services provided from abroad, to corporate income tax (IRAE) taxpayers as long as the services are linked to obtainment of income included and taxed by said tax, also conditioning the determination of the percentage of Uruguayan source income to the portion of taxed income of the IRAE taxpayer.

Regarding intermediation services, as we have seen, also potentially reached by a DST, Uruguay has adopted specific measures within the income tax system itself. Effective as of 1 January 2018, the legislation specifically addressed two digital business models, namely: transmission of audio-visual content services³⁶ and intermediation services in the provision of services.³⁷ Although the treatment of these activities was included in an article under the subheading “International source income”,³⁸ the criterion foreseen in this case for the consideration or not of the income as of Uruguayan source seems to depart from the traditional source criterion (application of factors of production totally or partially within the national territory) by conditioning such characterization to the location of the user or users of the digital interface in the national territory.³⁹ This is because – as indicated in Part 1.3. – the source in these cases is determined based on the location of the recipient of the digital

³⁵ “Advertising and propaganda services” has been understood as covering not only production and sale of advertising and propaganda, but also the service of showcasing such advertising, including online platforms (Consultation No. 6,053 dated 20 November 2017, which made explicit reference to “productions to be exhibited through social networks...for example Facebook, Google, Twitter, etc.”). It is worth mentioning that, in the Uruguayan Tax Authority’s opinion (Consultations No. 5,310 dated 23 March 2010 and No. 5,565, dated 31 August 2010) advertising and propaganda services are not “technical services”. Technical services have a similar source extension to the one applicable to advertising and propaganda.

³⁶ Expressly excluding advertising and propaganda services, technical services and distance-education services.

³⁷ Law No. 19,535 of 25 September 2017 and Decree No. 144/018. Before that, Decree No. 47/017 -now overruled- specifically addressed the case of transport intermediation platforms.

³⁸ See Part 1.3.

³⁹ On this matter, see: RICCARDI SACCHI, Andrea Laura: “While in the quest for the Holy Grail... Uruguay is already taxing income from Uber and Netflix”, blogpost in GLOBTAXGOV, Universiteit Leiden, 8 March 2019 (<https://globtaxgov weblog.leidenuniv.nl/category/andrea-laura-riccardi-sacchi/>), Date of consultation: 15 October 2020) and “*El enfoque latinoamericano del concepto de ‘fuente de renta’ a la luz de la digitalización y los nuevos modelos de negocio. Los servicios digitales y el caso uruguayo y argentino*”, in BRACCIA, Mariano (Dir.): “*Tributación de la economía digital*”, La Ley Argentina, Buenos Aires, 2019, pp. 218 to 268.

service, or those intervening in the underlying transaction. The legislation established several factors of geolocation for the purpose of locating the recipient (IP address, billing address or place of administration of the means of payment used), while, in respect of the supplier of the underlying service, established its location in the jurisdiction of provision of the underlying service. In short, the Uruguayan legislation, for these cases seems to have moved towards a criterion of taxation in the jurisdiction of the user or users of the service, approaching, somehow to the place of taxation that a typical DST may foresee. Furthermore, and as we mention *infra*, it should be noted that the Value Added Tax (hereinafter, VAT) law taxes these services at the rate of 22%.

4.3. Incentives

In Uruguay there are no specific tax incentives for the development or exploitation of big data. However, there are incentives on the production and development of software,⁴⁰ which could perfectly be applicable for developments associated with big data under the way of software.

The tax benefit consists of an IRAE exemption for income derived both from production and development as well as services associated with software. An express condition required by the regulation is that the resulting assets must be covered by the protection and registration of intellectual property rights laws.

The amount of exempt income will result from applying to the income derived from these activities the ratio resulting from considering in the numerator direct expenses and costs incurred to develop the asset, increased by 30% and in the denominator total expenses and costs incurred to develop each asset (without the 30% increase), as well as expenses and costs corresponding to the license of use or acquisition of intellectual property rights and the services contracted with non-resident related parties.

For the particular case of services associated with software, regulations indicate that all income will be exempt on the sole condition that the activity is developed entirely in Uruguay.⁴¹

4.4. Barter treatment

Although we are not aware of cases brought before the Tax Administration or before jurisdictional bodies in which it is argued that the concession of personal data to an application or platform is the consideration – mainly equivalent – that is received in exchange for the use of such platform, the issue has been raised in the theoretical field.

Indeed, FRASCHINI expressly addressed the issue. Along with highlighting that a “barter transaction” is a phenomenon taxed under the income tax system – and included expressly within the personal income tax –, points out that “... very few have stopped to

⁴⁰ It is relevant to point out that such incentives were recently amended (Law No. 19,637, dated 13 July 2018 and Decree No. 244/018) in the framework of certain changes introduced in the light of Action 5 of the BEPS Action plan. Currently this is contemplated in s. 5) of art. 52 of Title 4 of the T.O., in the IRAE.

⁴¹ It will be assumed that this condition is fulfilled when the level of direct expenses and costs incurred in Uruguay for the provision of such services is higher than 50% of the total direct expenses and costs incurred in the fiscal year for the provision of the services.

analyse the tax consequences on the users and regarding the contractual relationship that is established between them and the digital platforms. Indeed, the user of an online platform exchanges the use of his personal data for a service. There is then a contractual relationship similar to a barter transaction in which the provision of one of the parties (provision of information) is the cause of the consideration of the other (access to a service)".⁴²

We share this position conceptually, without prejudice to highlighting the extreme complexity of determining the value to be attributed to the transfer of data under said barter relationship, which is decisive for subjecting such transactions to tax.

Part Five: Indirect tax

The VAT law establishes under the heading "Territoriality"⁴³ that:

"the delivery of goods and the provision of services carried out in the national territory and the effective introduction of goods will be taxed, regardless of the place where the contract was concluded and the domicile, residence or nationality of those involved in the operations and exports of goods will not be taxed. Exports of services determined by the Executive Branch will neither be taxed".

Regarding internal operations of goods, our legislation adopts the principle of territoriality (delivery of goods made in national territory), while, with respect to international operations, it adopts the criterion of the country of destination: that is, imports are taxed and exports of goods are not taxed, foreseeing the recognition of a tax credit for VAT on the acquisitions of goods and services that directly or indirectly integrate the cost of exported goods. However, with regard to services, the criterion adopted is that of pure territoriality, as "the provision of services carried out in the national territory" are taxed though with certain exceptions based on an exhaustive list⁴⁴ (the so-called "services exports"). In this sense, the characterization of the transaction as a transfer or import/export of a good – tangible or intangible⁴⁵ – or the provision of a service becomes particularly relevant for the application

⁴² FRASCHINI, Juan Ignacio: "*¿Debo pagar impuestos por ceder mis datos a una plataforma digital? La irrupción de la tecnología y los nuevos desafíos tributarios*", in "*Consultor Tributario*", August 2019, available in: <https://www.elobservador.com.uy/nota/doble-click-201984171330>. Date of consultation: 15 October 2020.

⁴³ Art. 4, Title 10 of the T.O.

⁴⁴ Art. 34, Decree No. 220/998.

⁴⁵ See Consultation of DGI No. 5.482 of 7 September 2012, where the Tax Administration understood that "if it were a sale of intangible goods in national territory it will be taxed at the basic rate of the tax, while if it is a sale to a third country it will be treated as an export". There are various positions among scholars. NOPITSCH and ORDOQUI ("*Tratamiento del IVA en operaciones transfronterizas: intangibles y servicios internacionales*", in IFA Memories, Volume II, 2012, pp. 216 to 218), ARCIA ("*Aspectos impositivos del comercio electrónico*", in Tax Review (IUT), Volume XXXIV, Number 197, Montevideo, 2007, p. 191) and BLANCO ("*El Impuesto al Valor Agregado*", Volume I, FCU, Montevideo, 2001, p. 144), understand that it is not possible to talk about import/export when referring to intangible assets, while others, such as PÉREZ PÉREZ ("*El tratamiento tributario de los intangibles*", in Tax Review (IUT), Volume XL, No. 232, 2013, pp. 110 and 111), who changed his initial position, understands that it is valid to talk about import/export of intangible assets.

of this tax.⁴⁶ Specifically, said characterization in relation to data transactions is relevant.

On the other hand, and in the case of foreign entities (without PE in Uruguay) it is relevant to identify if the transaction is linked to obtaining income derived from the application of the capital factor or of the labour factor or of a combination of both, since in the first case – pure capital income – the VAT law excludes from the taxable event IRNR taxpayers who carry out covered transactions linked to the obtention of pure capital income.⁴⁷ In this sense, it should be noted that the legislation in force for the IRNR according to which, income from services of any nature rendered by non-resident entities other than natural persons, is considered business income, is not applicable under the VAT legislation.⁴⁸ This last point has been confirmed by the Tax Administration in Consultations No. 5,244 of 11 November 2009 and No. 6,237 of 9 September 2019.

Furthermore, as of 1 January 2018, a provision is in force according to which online intermediation in the provision of services and transmission of audio-visual content, “are considered made entirely within the country” when: “both parties are in the country” or “have as destination, are consumed or economically used in the country”, respectively. In the case of intermediation services, if the recipient or the provider of the underlying service is located abroad “it will be considered that the activity is carried out by 50% (fifty percent) within the national territory”.⁴⁹

According to the abovementioned, the VAT law delegates to the Executive Branch the power to establish which “services exports” are not taxed. Said power has been exercised, and certain transactions have been listed exhaustively in article 34 of the regulatory decree. However, it should be noted that this list includes transactions that do not necessarily fit the concept of a service export; indeed, it includes situations where transactions are partially developed within the national territory, transactions that are true transfers of goods and even transactions whose destination is not verified outside the territory.⁵⁰

For our purposes, the following cases may be of interest:

- “The following services provided to foreign persons:
 - a) Advisory services provided in relation to activities developed, goods located or rights economically used outside the Republic.
 Technical services are included in this item, provided in the field of management, administration, technique or advice of any type, and consultancy, translation, engineering projects, design, architecture, technical assistance, training and auditing.
 - b) Services provided for the design, development or implementation of specific software, understood as the software that is produced by order of the user.
 - c) The license to use software for a period or in perpetuity.

⁴⁶ VAT law (Title 10 of the T.O.) defines in its art. 2 the ‘flow of goods’ (circulación de bienes) as “any onerous transaction that has, for purpose the delivery of goods with the transference of the property right or that grants to whom it receives it, the powers to economically dispose of such goods such as if it were its owner”, services as “any onerous transaction that, without being a sale, provides the other party a benefit or profit that represents the cause of the consideration” and “import” as the “definitive introduction of a good to the internal market”.

⁴⁷ S. D), art. 6, Title 10 of the T.O., and section D), art. 1, Decree No. 220/998.

⁴⁸ Art. 3, Decree No. 149/007.

⁴⁹ Art. 5, Title 10 of the T.O., and arts. 26 bis and 26 ter, Decree No. 220/998.

⁵⁰ Oliari, Luis and Riccardi, Andrea: “Exportación de servicios en el Impuesto al Valor Agregado – Part I”, in Tax Consultant Review (La Ley Uruguay-Thomson Reuters), November 2014, pp. 11 to 24 and “Exportación de servicios en el Impuesto al Valor Agregado – Part II”, in Tax Consultant Review (La Ley Uruguay-Thomson Reuters), February 2015, pp. 9 to 26.

d) The total transfer of the right to use and exploit software.

In all the cases referred to in the previous items, it will be required that said services are used exclusively abroad.”

- “Data processing, as long as such data corresponds to activities developed, goods located or rights economically used outside the Republic, and provided that the result of said processing is used exclusively in that area.”
- “Services for the design, development and implementation of digital content (understood as those that occur by order of the user) and the license to use digital content for a period or in perpetuity, provided they are rendered to foreign persons and used exclusively abroad.”

In Consultation No. 4,734 of 17 September 2007, the Tax Administration stated that the access to information on a website is included in the concept of license to use digital content, referring the term “digital content” to “information in binary code with the accurate objective to be available and interchangeable.”

- “Market research and social research services; and data collection and processing services, provided to foreign entities for the aforementioned research activities. Such services must be developed in national territory and must be used exclusively abroad.”
- “Hardware platforms provision services, software, tools and similar, set in infrastructures, such as data processing centers, physically located within the national territory, as well as its operation, technical support and maintenance, as long as said services are provided to non-resident entities and are used abroad.”

Part Six: Tax Accounting

6.1. Recognition of transactions

Income tax legislation⁵¹ prescribes that income and expenses are recognized according to the accrual criterion – with some exceptions –, though without further development. In this regard, ABADI and WAJNER understand that in this case “the application of accounting regulations as a mechanism of interpretation” is valid.⁵² For its part, ALBACETE points out that the accrual concept “does not belong to accounting law but to private law and law of obligations”.⁵³

⁵¹ Arts. 16 and 19, Title 4 of the T.O., and art. 11, Decree No. 150/007. Also, see the cross reference to IRAE in art. 2, Title 8 of the T.O., and art. 10, Decree No. 149/007.

⁵² ABADI, Félix and WAJNER, Javier: “*Relaciones, discrepancias y conflictos entre normas tributarias y contables*”, in Tax Review (IJET), Volume XLIV, Number 258, Montevideo, 2017, p. 409.

⁵³ ALBACETE, Juan Manuel: “*Derecho Tributario y Derecho Contable. Interpretación e Integración*”, in Tax Review (IJET), Volume XLIV, Number 258, Montevideo, 2017, pp. 438 and 439.

6.2. Capitalization and amortization

As already recognized by national scholars, it is not possible to identify a definition of “asset” or “intangible asset” within the Uruguayan tax system.⁵⁴ In this sense, CÁCERES⁵⁵ points out that this is one of the cases in which the integration of accounting standards with tax standards is relevant; thus being applicable to the case, the definition provided in the IAS 38, that is, identifiability, control over the resource in question and existence of future economic benefits.⁵⁶ For its part, PÉREZ PÉREZ understands that the concept of intangible for tax purposes must respond to an economic meaning (and not a legal one). In this regard he refers to “assets intangibles” as “assets that represent a special economic capacity directly associated with obtaining economic benefits and originated in an accumulation of knowledge, in the development of an activity during a past period or a non-monetary credit resulting from an obligation assumed by a third party” and points out that as it is an economic conceptualization, it is similar to IAS 38 though not totally equivalent because it responds to tax principles not always aligned with accounting standards.⁵⁷ Likewise, with respect to international accounting standards, the Tax Administration has expressed its position, noting that though “taxes... have accounting bases and it is obvious that the rules of good accounting are applicable”, “accounting standards... do not repeal or replace tax provisions applicable for tax assessment”.⁵⁸

Despite the absence of a “tax” definition of an asset or an intangible asset, the income tax legislation⁵⁹ does include valuation standards for assets and, in particular, with regard to “intangible assets”, rules of recognition, establishing that:

“[I]ntangible assets that imply a real investment will be computed within the assets and, except for the goodwill, will be depreciated at a fixed rate over a period of five years, provided that the transferor is identified... as of 1 July 2015, they will be depreciated, at a fixed rate during the number of years of probable useful life of said assets. In those cases, in which it is not possible to determine the probable useful life of the aforementioned goods, these will be depreciated during a period of ten years. Goodwill will not be depreciated in any case (...) The items referred to in this article will not be updated”.⁶⁰

On the other hand, “depreciation of intangible goods, such as trademarks, patents, privileges and organizational expenses” are admitted as a deduction “provided that a real investment occurs and the transferor is identified”.⁶¹ In the specific case of “software” and, due to the

⁵⁴ ABADI, Félix and WAJNER, Javier: ‘Relaciones, discrepancias...’, ob. cit., p. 375. PÉREZ PÉREZ, Juan Antonio: ‘El tratamiento tributario’ ob. cit. p. 92. CÁCERES, Gabriel: ‘Incidencia de los aspectos contables en la tributación de los intangibles en el Uruguay’, in Tax Review (IUT), Volume XL, No. 233, Montevideo, 2013, pp. 210 and 220.

⁵⁵ CÁCERES, Gabriel: ‘Incidencia...’, ob. cit., pp. 225 and 226.

⁵⁶ See paras. 9 and onwards of the International Accounting Standard 38 (Intangible Assets).

⁵⁷ PÉREZ PÉREZ, Juan Antonio: ‘El tratamiento tributario...’, ob. cit., p. 123.

⁵⁸ See Consultations from DGI No. 6,305 dated 3 September 2020 and No. 277 of 14 June 1996.

⁵⁹ Capital Tax (*impuesto al patrimonio*) law refers to IRAE valuation rules: “The net worth of the legal entities, of foreign entities and the one affected to Corporate Income Tax activities, will be valued, in the applicable, by the rules of such tax” (art. 15 of Title 14 of the T.O.).

⁶⁰ Art. 37 of Title 4 of the T.O. and art. 94 of decree No. 150/007.

⁶¹ S. E), art. 21 of Title 4 of the T.O. Section G) of art. 24 of said Title, forbids the deduction of goodwill.

promotional scheme foreseen (see Part 4.3. above), as of 1 January 2018 the deduction of the depreciation is conditioned to the application of the “lock rule”.⁶²

Having said this, “intangible assets” recognized for tax purposes are depreciated and are not updated. The legislation provides the computation as a tax asset of an intangible asset as long as (i) there is a real investment and (ii) the transferor is identified. In fact, in Consultation No 5.482 of 7 September 2012, on “carbon bonds” the Tax Administration established that these “are assets of an intangible nature, representing a privilege or advantage, and they do not directly imply a real investment but they derived from the environmental improvements introduced by the company. According to article 94 of the Decree No. 150/007 of 26.04.007, we must compute within the assets exclusively those intangible assets that necessarily imply a real investment and as long as we can identify the transferor”.

Regarding the aforementioned computation criterion PÉREZ PEREZ has expressed:

“[a]lthough the terms used by the legislation could give rise to the interpretation that only intangible assets can be recognized as such when acquired in this way [intangible assets acquired from third parties], we move towards an extensive interpretation of the expression ‘the transferor is identified’ in the sense it refers to that who transfers a finished asset as well as to the supplier of goods and services necessary for the internal development of the asset”.⁶³ In reference to software, this author has stated that the costs of software developed for commercial exploitation and also for internal use, must be accumulated and recognized at their nominal value, and once the asset is completed, they should start to be depreciated.⁶⁴ For his part, ROSSETTO states in this regard that “the identification of the transferor required by the legislation, does not imply that one must have existed, as these could be goods not acquired from third parties but originated in the company itself” though it clarifies “in no case it will be possible to compute values ‘created’ or ‘attributed’, that is, costs that were not actually incurred”.⁶⁵

Part Seven: Other

We identify no other relevant tax matters that may arise from transactions based on data which have not been covered in the previous sections.

⁶² In IRAE, such rule -which foresees some exceptions- indicates that, in order to deduct costs and expenses, these should represent for the counterpart a taxable income, either by IRAE, IRPF, IRNR or a foreign income tax.

⁶³ PÉREZ PÉREZ, Juan Antonio: ‘*El tratamiento tributario...*’, ob. cit., p. 99.

⁶⁴ PÉREZ PÉREZ, Juan Antonio: ‘*Tratamiento fiscal del soporte lógico del ordenador (software)*’, in Tax Review (IUET), Volume XV, Number 84, Montevideo, 1988, p. 191. The rule in force at that time, art. 31 of Decree No. 661/979, established: “Intangible assets effectively paid for, will be considered in the assets and, except for goodwill, will depreciate at a fixed rate for a period of five years, provided that the seller is identified”.

⁶⁵ See CÁCERES, Gabriel: ‘*Incidencia...*’ ob. cit., p. 219.

Part Eight: Reference case studies⁶⁶

8.1. Data brokers / Information resellers

In this case, we focus on the characterization of the transactions described and some aspects of the source of income. Regarding the characterization, we start by the payment made by Broker Co. to Website Co. for the access to information generated through traffic on its website.

It is clear that the cause of the payment is the possibility for Broker Co. to access the aforementioned information and that said business could not be classified as a sale or transfer. The dilemma could arise between reputing said business as a service or, instead, as a kind of “royalty” or payment for authorization to use.

We are inclined to dismiss the service hypothesis, as long as we do not visualize an activity – not even a highly automated one – on the side of Website Co. that justifies the payment of a price.

On the contrary, we consider that the payment performed by Broker Co. is made to have access to the “asset” that represents for Broker Co. the information that emerges from the website of Website Co. Meanwhile, even though such information arising from the Website Co. site cannot be strictly catalogued as an “asset” from a legal point of view and cannot be object of “property”, from an economic perspective – which is the one used in the tax field – it does seem clear that it behaves in this way in this transaction, and that we might consider Website Co.’s income as a passive income derived from the license to use an “asset” over which it has control.

For its part, the payment that Broker Co. receives from its customers could in our opinion be qualified as a service fee, as long as there is an activity carried by Broker Co. and a customization of what it offers to its customers in accordance with the parameters set. Beyond the possible debates around the ownership of the information – which would not necessarily affect the answer from the tax point of view – the limitation established on the disposal of information by the acquirer leads us to understand that we are not facing a transfer, even in an economic sense. Yet we know that this is a highly debatable question, in this case, we highlight the possibility that said service is considered of a “technical” nature,⁶⁷ in which case the fee will be considered of Uruguayan source insofar as whoever receives the service is a corporate income tax (IRAE) taxpayer and said service is linked to obtaining taxable income under said tax.

8.2. Data feeds

We will use this case to focus on indirect taxation and, in particular, on the possible hypothesis of a “barter transaction”.

As previously indicated,⁶⁸ in our country scholarship has already raised the theoretical possibility of considering as a barter transaction the case when a user of a site or a platform authorizes the use of his data in exchange for being able to access the services that said

⁶⁶ Following the general reporter’s instructions, a description of the case is not included.

⁶⁷ All income taxes in force in Uruguay define technical services as those “rendered in the areas of management, technical, administration or advice of any kind”.

⁶⁸ See Part 4.4.

site or platform provides. This hypothesis could be viable both for income taxation as well as for consumption taxation, where barter transactions are hypothetically subject to tax.

In the case of Animal Data as an NGO, we would face a barter transaction for the provision of a service (from Animal Data Co., who provides information to Information Site Co. that the latter displays on its website). For said service to be covered by VAT, it should be provided in Uruguay.

This case raises two clear difficulties when determining the taxation for the barter. The first is how to determine the place of provision of the service of information supply. In a case of this nature, we face a circumstance not resolved by our legislation. Eventually, the position could be entertained that the information supply service occurs where the information is (for example, if the server on which it is stored, is identifiable), or the place of residence of Information Site Co., who benefits from the service.

The second complex matter relates to how to value the information that Animal Data Co. receives in exchange of its service as the taxable basis for VAT purposes is determined by the value of the consideration received. While tax standards in Uruguay offer multiple solutions for the valuation of non-monetary considerations received in payment, none of them is even similar by analogy, so that a case like the present – even when it is concluded that it should be subject to tax in Uruguay – does not have a solution for the determination of the tax base, a circumstance that also exists for income taxation.

8.3. Performance data analytics

Service Co. provides performance monitoring, failure prediction and repairing services to users of certain equipment. The services, provided through a data center, are based on data analytics tools that process the data received, among others, from the sensors installed in the equipment. Some repair services are rendered even in a fully automated manner.

Service Co., the data center and the customers – and with it, the sensors – can be located in diverse jurisdictions. To the extent that any productive factor is located in Uruguay and, therefore, income of Uruguayan source exists, the greatest challenge consists of determining the portion of income generated in the country, a question that in any case can be subject to consideration by the Tax Authority and eventually to jurisdictional resolution in case of dispute.

8.4. Analysis based consultancies

Consulting services for which Consultant Co. relies on the use of a database built by itself, could qualify as technical services and therefore the income obtained would be sourced in Uruguay as long as the services are materially rendered in Uruguay (definition of Uruguayan source) or are hired by a local Uruguayan company subject to income tax and taxed in Uruguay (extension of Uruguayan source), regardless of the location where they are rendered. Meanwhile, regarding the provision of access to its database to third-party researchers, although it would also be qualified as a service, we understand a qualification as technical would be highly doubtful. At a DTA level, Consultant Co.'s income would qualify as business income (article 7) unless there is a specific distributive rule in the treaty for services in general or those of a technical nature, as seen in Part two.

Annex



CAHIERS DE DROIT FISCAL INTERNATIONAL

The Cahiers are an invaluable source of information of lasting scientific value for any specialist interested in international or comparative fiscal law. The complete list of the Cahiers published since 1939 follows below.

Vol. 1.	1939:	<i>The Hague (Netherlands)</i> Taxation with regard to the earnings of limited companies with international interests
Vol. 2.	1939:	Would the incorporation of fiscal law in a separate system independent of other branches of the law, tend to facilitate international agreement?
Vol. 3.	1947:	<i>The Hague (Netherlands)</i> Tax treaties since the outbreak of the war
Vol. 4.	1947:	Trans- and postwar tax legislation
Vol. 5.	1947:	Double taxation conventions concluded by the United States since 1939
Vol. 6.	1947:	Trans- and postwar tax legislation (France and Belgium) V. 1/6 (one combined volume)
Vol. 7.	1948:	Summary record of the 1947 Congress
Vol. 8.	1948:	Summary record of the 1947 Congress
Vol. 9.	1948:	<i>Rome (Italy)</i> Computation of taxable profits (part 1)
Vol. 10.	1948:	Computation of taxable profits (part 2)
Vol. 11.	1948:	Effects and benefits of tax conventions V. 7/11 (one combined volume)
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Vol. 13.	1948:	Summary record of the 1948 Congress (has never been published)

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