

**DECONSTRUCT
TO RECONSTRUCT**

**IS IT POSSIBLE TO TAX
THE DIGITAL ECONOMY?**

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THE DIGITAL ECONOMY?**

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de Derecho

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*To the people I admire most: my mother,
father, brother, and sister.*

*To Professor Eleonora Lozano, who taught
me to be rigorous,*

*and to former Dean of Law Helena Alviar,
for broadening my horizons.*

*Lastly, to Paulina, who I believe will live in
a world with tax fairness.*

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List of Abbreviations

AOA	Authorized OECD Approach
B2B	Business-to-business
B2C	Business-to-consumer
BEPS	Base erosion and profit shifting
BR	Berry Ratio
C2C	Consumer-to-consumer
CCCTB	Common Consolidated Corporate Tax Base
COGS	Cost of goods sold
CONPES	Consejo Nacional de Política Económica y Social
CPM	Cost-Plus Method
CUP	Comparable Uncontrolled Price
DEMPE	Development, enhancement, maintenance, protection, and exploitation
DNP	Department of National Planning, <i>Departamento de Planeación Nacional</i>
ECJ	European Court of Justice

EU	European Union
ICT	Information and communication technologies
IP	Internet Protocol
IRC	Internal Revenue Code
ISP	Internet service provider
MNE	Multinational enterprise
MTC	Markup of total cost
OECD	Organisation for Economic Co-operation and Development
OPEX	Operating expense
P2P	Peer-to-peer
PE	Permanent establishment
PoEM	Place of effective management
PSM	Profit-Split method
ROA	Return on asset
ROS	Return on sales
RPM	Resale Price Method
TNMM	Transactional Net Margin Method
US	United States
VAT	Value-added tax

Introduction: Deconstruct to Reconstruct

This book, entitled “Deconstruct to Reconstruct,” is inspired by Jacques Derrida’s thesis on Deconstruction. It will focus on Benefit Theory and reconstruct the term in a twenty-first century context, specifically for the purpose of finding ways to tax companies in the digital economy. While it does not seek to study or suggest new tax policies, rates, exemptions, or participants, it aims to develop a theory that can guide tax authorities regarding how to tax companies, such as Google or Netflix, in the digital economy.

This book will begin by demonstrating how these new business models have reshaped the global economy and international financial transactions. Specifically, it will look at new approaches to engage with customers such as app stores, online advertising, cloud computing, participative network platforms, high-speed trading, and online payment services. These models, which are based on virtual transactions, were the result of the transformative process brought about by the evolution and dissemination of information and communication

technologies (ICT), which created the new digital economy.¹ ICT has made technologies cheaper, more powerful, and widely standardized, bolstering innovation across all sectors of the economy.

The following example illustrates the new realities facing tax authorities in the new global digital economy: E-commerce reached US\$16 trillion in financial transactions in 2014, sales through app stores totaled US\$102 billion in 2013, and online advertisement reached US\$100.2 billion in 2012.² However, many countries collect little-to-no taxes from these activities.

To reconstruct Benefit Theory and develop a theory of how to tax companies in the digital economy, this book will first demonstrate how the benefit principle was created. This will be followed by an explanation of how digital companies use big data and e-commerce. Finally, methods will be suggested for how to tax companies in the digital economy using direct taxes, indirect taxes, and the transfer pricing method.

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- 1 OECD, *G20, Base Erosion and Profit Shifting Project. Addressing the Tax Challenges of the Digital Economy* (Paris: OECD, 2015).
 - 2 Juan Guillermo Ruiz. "Tributación de la Economía Digital," *Legis, Comunidad Contable* (August 12, 2014).

Historical Overview: The Benefit Principle or Exchange Theory

An historical overview of the Benefit Principle or Exchange Theory is necessary in order to establish the conceptual basis for allocating taxing rights. In the early 1920s, the League of Nations appointed four economists to determine whether it was possible to formulate general principles to prevent double taxation. The four economists identified four factors comprising economic allegiance: “(i) origin of wealth or income; (ii) situs of wealth or income; (iii) enforcement of the rights to wealth or income, and (iv) place of residence or domicile of the person entitled to dispose of the wealth or income.”¹ They concluded that the greatest weight should be given to where the source of wealth is. Therefore, they claimed that a jurisdiction’s right to tax a person rests on the totality of benefits and state services the taxpayer is provided with in that specific jurisdiction. Accordingly, a country has the right to tax resident and

1 OECD, *G20, Base Erosion and Profit Shifting Project. Action 1: Addressing the Tax Challenges of the Digital Economy*. (Paris: OECD, 2015), 25.

non-resident corporations that derive a benefit from its government's services. This theory is commonly referred to as the BP or Exchange Theory.

While countries' current tax frameworks are based on the Exchange Theory developed in the twentieth-century, companies in the digital economy are often able to circumvent most if not all tax obligations. Digital companies often pay little to no taxes when they have no physical presence in the country or territory in which they operate. Their activities typically involve: (i) the development, enhancement, maintenance, protection, and exploitation (DEMPE) of intangible assets, and (ii) collecting, storing, processing, analyzing, deploying, and selling user-level data as well as user-generated content. In both sets of activities, fulfilling the four factors comprising economic allegiance is undertaken in different territories, thereby preventing tax authorities from applying Exchange Theory.

The first and second factors of Exchange Theory, which refer to the origin and situs of wealth, can include multiple locations as a product's development could take place in the United States, its protection in France, and its exploitation in China. Tax authorities in these three countries cannot all tax the same product because it would violate the basic principle of any tax treaty: there can be no juridical double taxation. Regarding the third factor, which refers to enforcing the rights relating to wealth or income, many countries may have enforcement rights in relation to the same product. The right to enforcement could be based on the collection of user-level data within a territory or where the data is processed or analyzed. Finally, the last factor, which refers to the place of residence or domicile, does not apply when digital companies have no physical presence in the territories in which they operate.

The context around digital companies also creates gaps in Exchange Theory, which prevent tax authorities from effectively collecting taxes from companies in the digital economy. The basic starting point to apply Exchange Theory to the digital economy is to recognize the basic principle that a country has the right to tax resident and non-resident corporations that benefit from providing services within its territory.

The Digital Economy and Its Core: Big Data and E-Commerce

Digital Economy

The digital economy consists of companies that operate under one of two multi-sided business model categories. Digital businesses either have the ability to provide customers with complementary services or they operate a vertical platform that makes resources available to third-party developers that use them to develop new innovative strategies. As a result, the digital economy has a diversity of revenue models.

There are currently eight different types of effective revenue models in the digital economy. First, advertising-based revenue is where free or discounted digital content is offered to users in exchange for viewing paid-for advertisement. Second, digital content purchases or rentals involve users paying for downloadable items (e.g., e-books, apps, or games). Third, online retailers sell tangible as well as intangible goods (i.e., virtual goods). Fourth, companies receive subscription-based revenue that involves users making annual payments for “premium delivery” of virtual goods from online retailers.

Fifth, online retailers sell services, including traditional online services as well as financial, consulting, or travel services. Sixth, enterprises license content and technology, which includes publications and journals that offer access to specialized online content. Seventh, companies sell user data and customized market research, which is mostly gathered by internet service providers (ISP), data brokers, and data analytics firms. Lastly, there are “hidden” fees and loss leaders, where profits or losses may be attributable to online operations.¹

There are a number of features that are prominent among the various revenue models in the digital economy. For instance, these business models rely less on local personnel, which increases the reach of intangible goods and services (i.e., intangibles) and makes business functions more flexible. Moreover, the models rely on data (big data) network effects, which involves understanding user participation, integration, and synergies. There are also multi-sided businesses in which “the two sides of the market may be in different jurisdictions.”² Of all of these features, however, the most important is the mobility of the intangibles; this core contribution to value creation by companies in the digital economy is the investment in and development of intangibles. For example, most digital companies focus on developing their intangible goods and services as they often rely on software and their intellectual property to generate revenue, which increases the value of the intangibles.

The digital economy is, therefore, heavily reliant on intangibles, the use of data, and the widespread adoption

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- 1 OECD, “Action 1: Addressing the Tax Challenges of the Digital Economy,” 64
 - 2 OECD, “Action 1: Addressing the Tax Challenges of the Digital Economy,” 65

of multi-sided business models that facilitate value creation. The challenge remains, however, how to determine in which jurisdiction value creation actually occurs. Current international corporate tax rules are not adapted to the digital economy as tax authorities are unable to collect taxes from profits made from digital services if the company has no physical presence in the country. This creates a mismatch between where value is created, which is normally a high-tax jurisdiction, and where taxes are paid, which is often a low-tax jurisdiction.

E-Commerce

E-commerce describes the sale or purchase of goods or services made using computer networks through methods that have been specifically designed to receive or place orders. While electronic payments are the most common method of payment in e-commerce transactions, payments do not necessarily have to be online.

There are different types of e-commerce models. First, business-to-business models (B2B) involve a business selling products or services to another business. B2B models include online versions of traditional transactions in which a wholesaler purchases a consignment of goods online. It can also include the provision of goods or services to support other businesses, such as logistics services, application service providers that offer hosting and management of software, web-hosting, content management services, or web-based commercial applications that enable automated online purchasing capabilities.

The business-to-consumer (B2C) model is another type of e-commerce model, which involves a business selling goods or services to individuals acting outside the scope of their professions. B2C models include online vendors with no physical stores or offline presence

that sell goods and services directly to consumers online. Goods and services can either be tangible or intangible if information is digitized (e.g., images, text, or sound). B2C models shorten the supply chain by eliminating the need for wholesalers, distributors, retailers, or other intermediaries that are part of traditional models.

Finally, consumer-to-consumer (C2C) or peer-to-peer (P2P) models are e-commerce models that involve transactions made by consumers that are intermediaries, assisting other consumers with selling or renting their assets, facilitating transactions, or publishing their information on a website.³ P2P networks are commonly known for providing users with the opportunity to share files and programs. Centralized P2P networks rely on one central look-up server (e.g., Napster), while Decentralized P2P networks make it possible for peers to provide search and routing facilities. Lastly, the BitTorrent P2P model consists of a number of peers and at least one tracker “whose only role is to help the peers find each other.”⁴

E-commerce can also be divided into online and offline commerce. Online commerce involves the dematerialization of goods and services through digitalization, which suppresses the origin of the operation. In this situation, the location of the operation takes place in cyberspace.⁵ Offline commerce prevents the allocation of

3 OECD, “Action 1: Addressing the Tax Challenges of the Digital Economy”. 56.

4 Michael Lang and Ine Lejeune, *VAT/GST in a global digital economy* (The Netherlands: Kluwer Law International, 2015), 9.

5 Jorge Vladimir Pons y García. “El impuesto al valor añadido en las operaciones de comercio electrónico,” in *Lecciones de Derecho Tributario, inspiradas por un maestro*, eds. Germán Pardo and Fabio Londoño Gutiérrez (Bogotá: Universidad del Rosario, 2010), 1054.

servers that promote online goods or services. In this situation, companies not only need to be registered but also identified as carrying out their operations. Moreover, e-commerce can be further divided between indirect e-commerce, which includes all situations in which two parties use digital means to close a transaction and “normal” channels to deliver the goods, and digital e-commerce, which include the electronic transfer of digital goods and services, such as websites, databases, and programs.⁶

E-commerce transactions can be separated into transactions made with virtual currencies and those made through general payment services. While both fall into the realm of online payments, they should be treated as separate categories. Virtual currency schemes, which do not have a physical counterpart with legal tender status, are usually controlled by their developers and have their own accounting units. In contrast, electronic money schemes, which are the dematerialization of “real” currencies, have the same unit of account as their “real counterparts” and could be considered as a way to make an online payment with a regular currency.⁷

Big Data

The Colombian Department of National Planning (Departamento de Planeación Nacional, DNP), along with the National Council of Economic and Social Policy (Consejo Nacional de Política Económica y Social), published

6 Michael Lang and Ine Lejeune, *VAT/GST in a global digital economy* (The Netherlands: Kluwer Law International, 2015), 6.

7 Michael Lang and Ine Lejeune, *VAT/GST in a global digital economy* (The Netherlands: Kluwer Law International, 2015), 9.

CONPES 3920, which provides guidance on macroeconomic policy to policymakers. This document gives an overview of how big data works and how to better understand it. First, data are the primary representation of the qualitative and quantitative variables that are storable and transferable and can be visualized, controlled, and understood.⁸ Data, therefore, are analogically perceived by the human senses through a binary codification, which is understood as digital data. Digital data can be generated by the interaction between individuals or groups of people and systems, information technology tools, or digital services. Digital data can also be generated automatically through software programs or hardware devices.

Accordingly, it is through the harvesting, storage, and processing of information, along with the proliferation of digital data, that it is possible to obtain knowledge and create goods and services that generate social and economic value.⁹ The exploitation of information occurs at the initial stage of the materialization of the data's potential value by using different analytical techniques to generate useful information products. Multinational enterprises (MNEs) that use big data in their decision-making process are five to six percent more productive than companies that do not. These digital economy companies, such as Apple, Google, Amazon, Facebook, or the Alibaba Group, have frequently invested in digital platforms, big data, and analytical talent.¹⁰

8 Dirección Nacional de Planeación (DNP), *Documento CONPES 3920* (Bogotá: Dirección Nacional de Planeación (DNP), 2018).

9 Dirección Nacional de Planeación (DNP), *Documento CONPES 3920* (Bogotá: Dirección Nacional de Planeación (DNP), 2018), 25.

10 Dirección Nacional de Planeación (DNP), *Documento CONPES*

As a result, companies in the digital economy are all engaged in datification,¹¹ which allows them to transform processes and activities into measurable data, resulting in the creation of new virtual or digital goods and services. However, companies use data in different ways. For instance, some companies derive a profit from digital data, which fulfills the technical conditions that facilitate their usage and exploitation, while others link data, which enables them to show, exchange, or connect online information. Furthermore, some companies use metadata (i.e., sets of data that describe and give information about other data), which enables them to interpret the content of the data and evaluate the quality as well as the relevance of the information.

3920 (Bogotá: Dirección Nacional de Planeación (DNP), 2018), 36.

11 Datafication is a term that describes the process of turning an activity or process that is invisible into data.

Is It Possible to Tax Digital Economy Companies?

Do Companies in the Digital Economy Avoid Taxes or Have a Tax Amnesty?

Tax avoidance is defined as: “working within the law” (though maybe against the spirit of the law) to minimize one’s tax liability. According to the South African Revenue Center, it has four different characteristics. First, tax avoidance involves the permanent elimination of the tax liability.¹ Second, it includes re-characterization or conversion of the tax liability. For example, a company can end up paying capital taxes instead of revenue taxes as was the case in 1997 with *House of Lords, IRC. v. McGuckian*.² Third, it is also characterized by deferring or

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- 1 John G. Head and Richard Krever. *Tax Reform in the 21st Century* (The Netherlands: Kluwer Law International, 2009), 531.
 - 2 *House of Lords. IRC v. McGuckian*, 992 1 W.L.R. UK, 1997. Involved a transfer of shares to a non-resident trust together with the subsequent sale of the rights to dividends from the shares for a lump sum which, it was unsuccessfully contended, was capital in nature.

postponing the payment of the tax liability and relies on the concept of the time value of money for its effectiveness. Finally, tax avoidance includes shifting or transferring assets from a high tax burden to a much lower one. The different types of tax avoidance include relief, finding a gap, exploiting a relief, anti-avoidance karate, unnatural transactions, pre-ordained transactions, and offshore schemes.³ While many companies in the digital economy do not pay taxes in the territories in which they operate, they are technically not engaged in tax avoidance because their virtual activities are often not regulated and, thereby, not subject to taxation.

Tax amnesty, on the other hand, is defined as an opportunity for taxpayers to pay either a limited amount or none of their original tax liability. In Colombia, it has been referred to “as a form of waiver by the state, in certain circumstances because of its sanctioning power in a process of “amnesia,” which is translated into a formula of forgiveness and oblivion, or, following the ruling of the Constitutional Court of Colombia through C-260/93, as a state of law in which the rule of law relinquishes its punitive power for public interest.” This is an oblivion, the reason for which lies in the socioeconomic convenience of the rule of law as well as in civil society as both involve the same economic and juridical process.⁴ Therefore, we can see that the rule of law is the one that recognizes certain effects of the social or economic circumstances, so it exempts the companies who agree to this ruling on their tax burden. However, digital economy companies are normally not covered by a tax amnesties

3 John G. Head and Richard Krever. *Tax Reform in the 21st Century*. (The Netherlands: Kluwer Law International, 2009), 534.

4 Corte Constitucional de Colombia. Sentencia C-260/93 (M.P. Vladimiro Naranjo Mesa: July 1, 1993)

as they often do not have an official tax liability in many countries.

Consequently, companies in the digital economy are not evading taxes or covered by tax amnesties as they usually operate within the gaps of current tax laws. As a result, they often pay little-to-no taxes in many countries or territories in which they operate.

Comparative Analysis

The comparative analysis will be divided into four different parts, each demonstrating how tax authorities on different continents have developed their own separate theories for how to tax companies in the digital economy. While both direct and indirect taxes will be analyzed in the European case, only direct taxes will be considered for the United States (US), and indirect taxes will be analyzed for Asia and South America.

In Europe, policymakers have tried to address the tax challenges posed by the digital economy through a system of simplified registrations for nonresident B2C suppliers of services across borders. They have also created a virtual or digital permanent establishment (PE). In the US, jurisprudence originally created in the 1960s is used to tax companies such as Skype. Asian countries have approached the digital economy in different ways, but the most prominent policy is used by the India Revenue Service and involves the use of an equalization levy. Similar to Asia, tax systems differ widely across South America; Argentina and Brazil are among the few countries that have specific rules targeting digital economy companies.

Europe

The principles of the European Community state that it shall be based on a customs union.⁵ While this does not necessarily mean identical regulations across the European Union (EU), it prohibits discriminatory or protective product taxation and import restrictions.⁶ As a result, the main tax principle of the EU is the elimination of all obstacles to intra-community trade in order to create a single market.⁷

The process of integrating European markets is based on the four freedoms of goods, capital, services, and labor. These, in turn, are based on two basic rights: (i) the right to free movement and (ii) the right to not be discriminated against because of nationality or origin (to ensure market equality).⁸ However, the freedom to provide services is in principle not applicable “if one of the latter freedoms is,” as there are cases (e.g., in the digital economy) where services are provided without the establishment or mobilization of capital or goods.⁹ This conflict creates a duty among European policymakers to carefully monitor companies in the digital economy and treat them differently from other more traditional companies.

5 *The Treaty on European Union* (TEU Post-Lisbon: European Union, 2007) Article 23.

6 *The Treaty on European Union* (TEU Post-Lisbon) European Union, 2007. Article 28 and 90.

7 *Gaston Schul Douane Expéditeur BV v. Inspecteur der Invoerrechten en Accijnzen*, ECJ: Case 15/81. Roosendaal, 1982.

8 Ben J.M. Terra and Peter J. Wattel. *European Tax Law* (The Netherlands: Kluwer Law International, 2008), 44.

9 Ben J.M. Terra and Peter J. Wattel. *European Tax Law* (The Netherlands: Kluwer Law International, 2008), 53.

To address the challenges posed by the digital economy, the European Commission created the Digital Single Market in 2015 to control and monitor the on-line market of goods and services. It set up a registration system that is expected will increase economic growth by 1.6 percent (€206 billion) by 2020.¹⁰ The EU controls non-physical corporations and digital operations through a mechanism that manages digital transactions.¹¹ Thus, European policymakers have adopted a destination-based approach by creating a simplified registration system for non-resident suppliers in order to tax B2C activity involving services across borders.

In 2018, the European Commission also developed a theory to create a “significant digital presence” tax to attempt to ring-fence the digital economy. The idea is that that the European Digital Single Market needs a modern and stable tax framework for the digital economy to stimulate innovation, tackle market fragmentation, and allow all economic actors to tap into new market dynamics under fair and balanced conditions.¹² Moreover, a common tax framework may be needed to tackle the challenges posed by the digital economy and respect the underlying principle that profits should be taxed where the value is created. However, challenges remain in that it is not clear in the digital economy what and where value is created or how to measure it.

The EU has presented two proposals that would enable member states to tax profit earned in their territories even if a company does not have a physical presence

10 Incumbents rule, *The Economist*, September 17, 2016.

11 OECD, G20, *Base Erosion and Profit Shifting Project. Addressing the Tax Challenges of the Digital Economy* (Paris: OECD, 2015), 99.

12 European Commission, *A Fair and Efficient Tax System in the European Union for the Digital Single Market* (Brussels: European Commission, 2017), 2.

there. The first proposal includes a rule that a digital platform will be deemed to have a taxable virtual PE if it fulfils one of three criteria: (i) it exceeds a threshold of €7 million in annual revenue in a member state; (ii) it has more than 100,000 users in a member state in a taxable year; or (iii) over 3,000 business contracts for digital services are created between the company and its customers in a taxable year.¹³

The goal of the EU's first proposal is to create a link between where a company makes its digital profits and where it is taxed. It aims to create a virtual PE where a company has a significant digital presence, considering the functions performed, assets used, and risks assumed through the digital interface. A functional analysis would be needed to determine a company's profits, which would identify the economically significant activities that happen on the digital interface. These activities include (i) performing DEMPE functions for an enterprise's intangible assets as well as (ii) collecting, storing, processing, analyzing, deploying, and selling user-level data and user-generated content.

The EU's second proposal includes an indirect interim tax on revenue from certain digital services. This digital turnover tax would apply to revenue created from activities where users play a major role in value creation, which are the hardest services to tax. For instance, this tax would target revenue earned from the sale of online advertising space. It would also focus on platforms created from digital intermediary activities that allow users to interact with other users and facilitate the sale of goods and services. Moreover, the digital turnover tax

13 European Commission, *A Fair and Efficient Tax System in the European Union for the Digital Single Market* (Brussels: European Commission, 2017).

would tax revenue from the sale of data generated from user-provided information (i.e., big data). Tax revenue would be collected where the users are located, and the tax would only apply to companies with total annual worldwide revenue of at least €750 million and revenue within the EU of €50 million.

The European Commission would integrate any new tax rules with the Common Consolidated Corporate Tax Base (CCCTB); their ultimate goal is to allocate a portion of MNEs' profits in a way that better reflects where the value is created. In order to apply taxes to where the value is created, the CCCTB was developed to provide the EU with a framework for revised PE rules and a formula that allocates tax revenue from MNEs using the apportionment approach based on assets, labor, and sales.¹⁴ The formula is enshrined in Article 28 of the EU's council directive on the CCCTB. Specifically, it states that:

The consolidated tax base shall be shared between the group members in each tax year on the basis of a formula for apportionment. In determining the apportioned share of a group member, A, the formula shall take the following form, giving equal weight to the factors of sales, labour and assets:

$$\text{Share}^A = \left(\frac{1 \text{ Sales}^A}{3 \text{ Sales}_{\text{Group}}} + \frac{1}{2} \left(\frac{1}{2} \frac{\text{Payroll}^A}{\text{Payroll}_{\text{Group}}} + \frac{1}{2} \frac{\text{No of employees}^A}{\text{No of employees}_{\text{Group}}} \right) + \frac{1}{2} \frac{\text{Assets}^A}{\text{Assets}_{\text{Group}}} \right)$$

*Con'd Tax Base

An easier formula to understand is:

$$T_i = t_i \cdot \pi \left[\alpha_i^K \cdot \frac{K_i}{K} + \alpha_i^L \cdot \frac{L_i}{L} + \alpha_i^S \cdot \frac{S_i}{S} \right]$$

14 European Commission, *Common Consolidated Corporate Tax Base (CCCTB)* (Brussels: European Commission, 2016).

Where:

- * i = state;
- * T_i = tax liability in state i ;
- * t_i = statutory tax rate in state i
- * π = overall group profit;
- * $K_i/L_i/S_i$ = capital/labour/sales in state i ;
- * $K/L/S$ = overall group capital/labour/sales;
- * α_i^K = weight on capital in state i ;
- * α_i^L = weight on labour in state i ;
- * α_i^S = weight on sales in state i ;
- * $\alpha_i^K = \alpha_i^L = \alpha_i^S = 1/3$

The following example illustrates the European Commission's council directive on the CCCTB:

$$\text{Germany: } 30\% \cdot \text{€1,000,000} \left[\frac{1}{3} \cdot \frac{\text{€150,000,000}}{\text{€200,000,000}} + \frac{1}{3} \cdot \frac{\text{€3,000,000}}{\text{€8,000,000}} + \frac{1}{3} \cdot \frac{\text{€135,000,000}}{\text{€200,000,000}} \right] = \text{€180,000.}$$

$$\text{Slovakia: } 19\% \cdot \text{€1,000,000} \left[\frac{1}{3} \cdot \frac{\text{€50,000,000}}{\text{€200,000,000}} + \frac{1}{3} \cdot \frac{\text{€5,000,000}}{\text{€8,000,000}} + \frac{1}{3} \cdot \frac{\text{€65,000,000}}{\text{€200,000,000}} \right] = \text{€76,000.}$$

Assume company XCo, which resides in Germany, has a 100 percent subsidiary (Y), which resides in Slovakia. XCo has a payroll of €3 million, capital of €150 million, and sales of €135 million. Moreover, Y has a payroll of €5 million, capital of €50 million, and sales of €65 million. The total income of XCo and Y is €1 million. Further suppose that according to the arm's length standard, X earns €700,000 and Y €300,000. In the event of separate taxation, the total tax liability would amount to €267,000 = 0.3 × €700,000 + 0.19 × €300,000. Thus, the group's average tax rate would amount to 26.7 percent.

If the group applies for the CCCTB, it needs to compute the tax base of both X and Y according to the CCCTB rules and submit both tax calculations to the German tax authorities. When they are agreed upon, the tax base

has to be apportioned between Germany and Slovakia. The group pays taxes on the share of profit apportioned to Slovakia at the Slovak tax rate of 19 percent, while the tax on the German share of the profits is paid at the German tax rate of 30 percent. In this example, as proposed by the European Commission, capital, labor, and sales are equally weighted. Hence, group's total tax bill amounts to €256,000 and the group's average tax rate is equal to 25.6 percent.¹⁵

As an advancement of 2018 policy, in 2019, France enacted the "Digital Services Tax (DST).¹⁶ This tax is "Une imposition de 3% sur le chiffre d'affaires numérique réalisé en France." In other words, tax is applicable at a rate of three percent to revenues from: online advertisement, sale of user data for advertisement purpose, and any activity that comes from "plateformes d'intermédiation." This regulation is an important effort to tax digital economy companies through indirect taxes as we can see that there is an unjust rate where a normal enterprise has a tax burden of 23.2%, and a digital economy company has one of 9.5%.¹⁷

15 European Commission, *Common Consolidated Corporate Tax Base (CCCTB)* (Brussels: European Commission, 2016).

16 Congress of the Republic of France, "Projet de loi. Portant création d'une taxe sur les services numériques et modification de la trajectoire de baisse de l'impôt sur les sociétés NOR," ECOE1902865L/Bleue-1. (France: Congress of the Republic of France, 2009).

17 "Projet de loi relatif à la taxation des grandes entreprises du numérique," Ministère de L'Economie et des Finances, <http://src.bna.com/F9D> (accessed June 4, 2019).

United States of America

Tax conditions in the US are quite different from those in the EU. The country's federal system means that each state has its own set of regulations. Moreover, Congress passed the Internet Tax Freedom Act in 1998, which stipulates that, "no State (...) shall impose any of the following taxes (...) (1) taxes on internet access; (2) multiple or discriminatory taxes on electronic commerce." As a result, e-commerce was not taxed in the US.¹⁸ Nonetheless, many states started regulating the new digital economy business models. For instance, in response to NetZero and Barnes&Nobles' tax planning, California passed a revenue tax declaring that:

A company is liable for the collection of sales taxes if it uses agents or representatives in this state: any retailer having any representative [...] under the authority of the retailer or its subsidiary for the purpose of selling, delivering, installing, assembling, or the taking of order for any tangible personal property.¹⁹

Individual states in the US are constitutionally restricted in terms of taxation as the due process and commerce clauses of the US Constitution require a minimum presence of an individual or company in a state before that state can collect income taxes. Thus, there must be a definite link or a minimum connection between the state and the person, property, or transaction it seeks to tax.²⁰

18 Richard A. Westin, *International Taxation of Electronic Commerce*. (The Netherlands: Kluwer Law International, 2007), 127

19 Revenue & Taxation Code [RTC]. Section 6203. State of California, United States of America (May 17, 1939)

20 Richard A. Westin, *International Taxation of Electronic Commerce* (The Netherlands: Kluwer Law International, 2007), 100.

This principle of “minimum connection” was reaffirmed in *National Bellas Hess v. Department of Revenue of Illinois* in 1967 when the court declared that there must be physical presence in the state for a tax burden to appear, which effectively upheld the due process clause.²¹ However, the precedent was overruled in *Quill Corp v. North Dakota* in 1992 when the court argued that although territorial presence enhances a potential defendant’s affiliation, it is an inescapable fact of modern commercial life that a substantial amount of business is transacted solely by mail and wire communications.²² Similar logic was present in *Goldberg v. Sweet* as the Supreme Court of the United States determined that:

[T]here was nexus by either: (i) the state that taxes the origination or termination of an interstate telephone call charge to a service address within the state; or (ii) the state which taxes the origination or termination of an interstate telephone can be billed or paid within that state.²³

Finally, on June 21, 2018, the Supreme Court ruled in *South Dakota v. Wayfair* that, “internet retailers can be required to collect sales taxes even in states where they have no physical presence.”²⁴ As a result, companies operating in the US can be taxed in a state even if they do not have a physical presence in that state.

21 *National Bellas Hess v. Department of Revenue*, 386 US 753 (1967)

22 *Quill Corp. v. North Dakota*, 504 US 298 (1992).

23 *Goldberg v. Sweet*, 488 US 252 (1989).

24 *South Dakota v. Wayfair Inc*, 585 US (2018).

Asia

Policymakers in Asian countries have approached the digital economy in different ways. In China, regulations specify that indirect taxes, such as the value-added tax (VAT), will only be applied to processing, repair, and replacement services for tangibles. Moreover, companies that are registered in Hangzhou are not required to pay any VAT.²⁵ When income from online services reached US\$90.1 billion in 2014, Chinese policymakers created these tax policies to develop standards for cross-border e-commerce and created a system that simplified the registration process and reduced transaction costs.

In contrast, Japan has adopted special rules for cross-border digital services, including cloud services, digital content distribution, and software downloads. The Japanese tax system identifies whether individuals or companies that receive digital services are located outside or inside the country, and if the transaction is a B2B or B2C. For example, any Japanese business that receives a B2B digital service is obliged to pay the consumption tax. However, a foreign digital company that is engaged in B2C activities in Japan is tax liable.²⁶

The Indian tax system includes an equalisation levy (as BEPS Action 1 proposes) for online advertisement, provisions of online advertisement space, or other facilities or services involved in online advertisement that are offered by a non-resident to a resident or a non-resident with a PE.²⁷

25 EY, *Worldwide VAT, GST and Sales Tax Guide* (London: Ed. EYGM Limited, 2016), 164

26 EY, *Worldwide VAT, GST and Sales Tax Guide* (London: Ed. EYGM Limited, 2016), 497.

27 EY, *Worldwide VAT, GST and Sales Tax Guide* (London: Ed. EYGM Limited, 2016), 423-424.

Finally, Russia has introduced a special indirect tax on digital services, which is determined by the location of the customer. Also, digital services offered by foreign companies are subject to VAT.²⁸

South America

Similar to Asia, tax rules vary widely between countries in South America. On the one hand, Peru, Ecuador, Mexico, and Panama have no special tax rules for companies involved in the digital economy. On the other hand, Argentina and Brazil have both adopted specific taxes for digital transactions. In Brazil, digital sales are regulated by the same rules as indirect taxes.²⁹ As for Argentina, some provinces in Argentina have established a turnover tax with a withholding tax system for non-residents on income made from digital services; the purpose is for them also to be subject to the same VAT rules that apply to any other company.

Chile, the *Impuesto a los Servicios Digitales* is being discussed as part of the *Modernización Tributaria* for which there is a 10% tax on any digital service that is being used in the territory. Hence, any digital economy company must pay an “ISD” of 10% of the total income generated in Chile.³⁰ As for Uruguay, with “Decreto 144/2018,” the tax authority instructs that the production, distribution or intermediation of internet, technological platform, or any other digital transaction will be understood as territorial

28 EY, *Worldwide VAT, GST and Sales Tax Guide* (London: Ed. EYGM Limited, 2016), 838

29 EY, *Worldwide VAT, GST and Sales Tax Guide* (London: Ed. EYGM Limited, 2016), 120.

30 Congress of the Republic of Chile, *Proyecto de Ley Modernización Tributaria*. Boletín 12043-05, 2018.

income if the user IP (Internet Protocol) is being used in Uruguay when paying for the service. As for indirect taxes, VAT will be applicable when the digital services are being consumed or used in Uruguay.³¹

For Colombia, legislative power enacted “Ley 1819 del 2016” which mandated, in Article 180, that any debit or credit card issuer must withhold the payment made to any electronic or digital services such as audiovisuals, digital distribution of mobile apps, advertisement, and distance teaching, or training platform.³² Hence, in Colombia, the authorities are making an effort to tax some companies in the digital economy, but this is *prima facie* in comparison of other continents.³³

31 Republic of Uruguay, *Decreto 144 del 2018*, 2018.

32 Congress of the Republic of Colombia, *Ley 1819 del 2016*, 2016.

33 If interested in the tax procedure, you can find more information in “Resolución DIAN 051” of October 19, 2018, in which the procedure to fulfill the substantial and material duties on VAT is established.

4

How to Tax Digital Economy Companies

Equipped with an understanding of how the business models in the digital economy work and how different tax theories have evolved over time, this chapter will investigate how tax authorities can tax digital economy companies.

Direct Taxes

Definition

Direct taxes are taxes levied on the income of individuals or profits of organizations. Individuals are taxed under different conditions. A person needs to pay taxes on his or her global income in the country in which he or she operates, depending on the country's specific tax rules. However, an individual only needs to pay taxes based on a territorial scope if the person is not a resident of the country.

There are two different ways for a company to reside in a country. A company is considered a resident of a country if it is incorporated there, which means that it

needs to follow that country's tax laws and pay all the applicable taxes. In contrast, if a company has a PoEM in a different country from where it is incorporated, the company can be classified as a resident of the country where it has a PoEM if it makes most or all of its commercial and administrative decisions in that country. Before base erosion and profit shifting (BEPS), whenever there was a discussion on where a company was resident using the tie-breaker rule, the PoEM was prevalent. Nonetheless, under BEPS Action 2 (i.e., neutralizing effects of hybrid mismatch arrangements),³⁴ the PoEM criterion is replaced by a case-by-case approach (i.e., a mutual agreement procedure tie-breaker rule), following Article 4(3), in which:

3. Where by reason of the provisions of paragraph 1 a person other than an individual is a resident of both Contracting States, the competent authorities of the Contracting States shall endeavor to determine by *mutual agreement* [author's emphasis] the Contracting State of which such person shall be deemed to be a resident for the purpose of the Convention, having regard to its place of effective management, the place where it is incorporated or otherwise constituted and any other relevant factors. In the absence of such agreement, such person shall not be entitled to any relief or exemption from tax provided by this Convention except to the extent and in such manner as may be agreed upon by the competent authorities of the Contracting States.

34 Wolters Kluwer Editorial Staff Publication, *Base Erosion and Profit Shifting (BEPS), Are You Ready?* (Chicago: Wolters Kluwer CCH Publications, 2015), 1.

The water's edge method applies in all other cases whenever a company is not resident of the country. This method helps countries define the territorial scope of their right to tax foreign companies' profits.³⁵ Moreover, this method makes the profits of companies that are not residents of a country subject to the country's corporate income tax if they are sourced within its borders. Thus, profits can only be taxed if they are sourced in the relevant jurisdiction. This principle is present in the PE concept, which is commonly defined based on a local-territorial definition. Article 5 of the Organisation for Economic Co-operation and Development's (OECD) MC states that:

Article 5. PERMANENT ESTABLISHMENT

1. For the purposes of this Convention, the term "permanent establishment" means a fixed place of business through which the business of an enterprise is wholly or partly carried on.

2. The term "permanent establishment" includes especially:

- a) a place of management;
- b) a branch;
- c) an office;
- d) a factory;
- e) a workshop, and
- f) a mine, an oil or gas well, a quarry or any other place of extraction of natural resources.

3. A building site or construction or installation project constitutes a permanent establishment only if it lasts more than twelve months.

35 Raffaele Russo ed., *Fundamentals of International Tax Planning* (The Netherlands: Ed. IBFD, 2007), 34.

4. Notwithstanding the preceding provisions of this Article, the term “permanent establishment” shall be deemed not to include:

a) the use of facilities solely for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise;

b) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of storage, display or delivery;

c) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of processing by another enterprise;

d) the maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise or of collecting information, for the enterprise;

e) the maintenance of a fixed place of business solely for the purpose of carrying on, for the enterprise, any other activity of a preparatory or auxiliary character;

f) the maintenance of a fixed place of business solely for any combination of activities mentioned in subparagraphs a) to e), provided that the overall activity of the fixed place of business resulting from this combination is of a preparatory or auxiliary character.

5. Notwithstanding the provisions of paragraphs 1 and 2, where a person — other than an agent of an independent status to whom paragraph 6 applies — is acting on behalf of an enterprise and has, and habitually exercises, in a Contracting State an authority to conclude contracts in the name of the enterprise, that enterprise shall be deemed to have a permanent establishment in that State in respect of any activities which that person undertakes for the enterprise, unless the activities of such person are limited to those mentioned in paragraph 4 which, if exercised through a fixed place of business, would not make this fixed place of business a

permanent establishment under the provisions of that paragraph.

6. An enterprise shall not be deemed to have a permanent establishment in a Contracting State merely because it carries on business in that State through a broker, general commission agent or any other agent of an independent status, provided that such persons are acting in the ordinary course of their business.

7. The fact that a company which is a resident of a Contracting State controls or is controlled by a company which is a resident of the other Contracting State, or which carries on business in that other State (whether through a permanent establishment or otherwise), shall not of itself constitute either company a permanent establishment of the other.

Article 5(1) of the OECD's MC describes the four conditions that have to be met for a company to qualify for physical PE.³⁶ First, the company needs to have a place of business with established premises in the country, including facilities or installations that the company owns. The company can also own facilities or equipment in another enterprise. Second, a company's place of business must be limited to a specific geographical area. Third, the place of business needs to be at the disposal of the entrepreneur as mere presence does not imply disposal. Finally, there must be a sense of permanence to the company's business activities in the country. In practical terms, this usually means that the company needs to have been established in the country for a set period of time, usually six months or more (it can be less depending on the nature of the enterprise).

36 Following OECD Commentaries on Article 5(1) of the OECD MC.

Article 5(3) details the conditions for a project PE. A company can gain PE if it is involved in a construction or installation project that lasts at least twelve months. Article 5(4) lists the activities that do not constitute PE even if they are conducted at a fixed place of business. Article 5(4)(e) states that the preparatory or auxiliary character of the activities determines their eligibility. However, BEPS Action 7 (i.e., preventing artificial avoidance of PE status) removed these provisions to prevent MNEs from fragmenting their operations so they qualify for PE status. Moreover, Article 5(5) describes the conditions to fulfill agency PE, which involve the need for an enterprise to have an agent, who is authorized to act on behalf of the business and sign legally binding contracts, present in the country.

The OECD also describes different types of PE based on the nature of the business. For instance, service PE requires a company to pass the Mechanical Test, which states that it must have spent more than 183 days in the source State,³⁷ and that more than 50 percent of its gross revenue must have come from activities in the source state. There are also conditions for qualifying for e-commerce PE, which will be described in the next section.

Using Electronic Commerce Permanent Establishment to Tax the Digital Economy

The main challenges facing policymakers who want to use direct taxes to tax companies in the digital economy fall into three categories: (i) nexus, (ii) data, and (iii) characterization.³⁸ First, the nexus describes the challenge of

³⁷ OECD MC Commentaries 42.11- 42.48.

³⁸ OECD, *G20, Base Erosion and Profit Shifting Project. Addressing the Tax Challenges of the Digital Economy* (Paris: OECD, 2015), 100.

how to establish and protect taxing rights in a country where businesses can provide services digitally with little or no physical presence. This raises the question as to whether current rules that determine tax jurisdictions are appropriate. Second, the growth and sophistication of ICT has allowed companies to gather and use information across borders. This raises the question of how to determine what and where value is created and how to identify the tax base. Finally, characterization poses the question of how to properly define payments made in the context of the digital economy's new business models.

The idea that there is a direct link between a company's data (including its use, i.e., datamining), and its revenue can be summarized as:

[t]he value generated by user contributions may be reflected in the value of business itself. [...] Leveraging data can create value for businesses in a variety of ways, including by allowing businesses to segment populations in order to tailor offerings, to improve the development of products and services.³⁹

While business models in the digital economy have developed ways to collect, analyze, and monetize data, the challenge of how to analyze the value of raw data remains. For accounting purposes, the value of data collected by a business, like any other intangible asset, would normally not appear on the company's balance sheet, thereby making it irrelevant to determine taxable profits. However, valuing data as assets creates a different set of problems. For instance, there are legal questions about the ownership of personal data and users' ability

39 OECD, G20, *Base Erosion and Profit Shifting Project. Addressing the Tax Challenges of the Digital Economy* (Paris: OECD, 2015), 102.

to control whether a business can access and utilize their data.⁴⁰ Also, data can be collected from users or devices in one country using technology developed in another. The company in the second country can then process the data and use them to improve its product offerings or target advertisement to customers in the first country.⁴¹ Tax authorities are, therefore, faced with the challenge of evaluating the value of data and allocating profits between countries.

To evaluate the application of e-commerce PE in efforts to tax digital companies, it is important to first understand how PE works. OECD Commentaries 42.1-42.10 distinguish between computer equipment, which is located in a specific physical place, and data and software, which are used with computer equipment. For example, a website, which consists of a combination of software and electronic data, does not in itself constitute tangible property, as its location is not a place of business. Nevertheless, the web server that hosts the website does constitute a physical place where the equipment is located and is, therefore, the fixed place of business of the company that operates the server.⁴²

The distinction between website and web server is often made because it is common for a company's website to be hosted on an ISP, and the enterprise that operates the server can be different from the enterprise that uses the website for its business.⁴³ Therefore, a company

40 OECD, *G20, Base Erosion and Profit Shifting Project. Addressing the Tax Challenges of the Digital Economy* (Paris: OECD, 2015), 103.

41 OECD, *G20, Base Erosion and Profit Shifting Project. Addressing the Tax Challenges of the Digital Economy* (Paris: OECD, 2015), 104.

42 OECD MC Commentaries. Art. 5, 42.2.

43 An ISP is not an Agent PE as they do not have the authority to conclude contracts in the company's name. Therefore, it

needs to be located in the same fixed place of business as its web server for more than six months to qualify for e-commerce PE.

This e-commerce PE model is insufficient to effectively tax companies in the digital economy. A different approach requires having an understanding of two different concepts of tax jurisdiction: the jurisdiction to impose a tax and the jurisdiction to enforce a tax. These are the concepts that Hellerstein labeled substantive jurisdiction, which is related to a country's power to impose taxes on individuals and companies. Moreover, enforcement jurisdiction relates to a country's power to collect taxes because of its substantive tax jurisdiction.⁴⁴ Regarding the creation of an enforcement jurisdiction for virtual income, income taxes could be collected if the company has a digital presence in a substantive jurisdiction. This presence would need to be determined as a virtual or digital nexus based on a threshold of digital sales in the country. Alternatively, the threshold could be based on data collected from the users of the company's services in the country.⁴⁵

The OECD's AOA approach provides the first step to creating a method to tax the digital economy: defining a virtual PE. The second step involves determining the income attributable to the virtual PE. This will require a

cannot be understood to be an agent. Commentaries OECD. Art. 5, 42.10

44 Walter Hellerstein, "Exploring the Potential Linkages Between Income Taxes and VAT in a Digital Global Economy," in *VAT/GST in a Global Digital Economy*, eds., Michael Lang and Ine Lejeune, 83-117 (The Netherlands: Kluwer Law International, 2015).

45 Walter Hellerstein, "Exploring the Potential Linkages Between Income Taxes and VAT in a Digital Global Economy," in *VAT/GST in a Global Digital Economy*, eds., Michael Lang and Ine Lejeune, 95 (The Netherlands: Kluwer Law International, 2015).

company's digital presence to be analyzed in each country or territory, which could be either: (i) the number of contracts for digital goods or services signed between the enterprise and its customers, or (ii) the payments made to the enterprise for digital goods or services from clients located in the country (as part of its core business).

This approach makes it easier to determine a company's taxable income by understanding e-commerce PE as virtual PE. This would enable tax authorities to adopt new approaches. First, virtual fixed place of business PE creates PE when an enterprise maintains a website on a server belonging to another enterprise located in the jurisdiction and conducts business through that website. Second, a virtual agency PE extends the existing dependent agent PE concept to circumstances in which contracts are habitually concluded on behalf of an enterprise with physical or virtual persons located in the jurisdiction. Finally, on-site business presence PE is determined by evaluating the economic presence of an enterprise in a specific jurisdiction, especially the company's on-site services and its business interactions at the customer's location.⁴⁶

Many countries have developed their own virtual PE methodologies to tax companies in the digital economy. For example, on April 2, 2015, the Israel Tax Authority published draft guidelines for how to tax foreign companies that have a significant digital presence in the country. The guidelines are in line with the BEPS digital economy report and state that a company has PE if their core economic activity is carried out over the internet and there is a virtual connection with the Israeli market.

46 P. Collin and N. Collin, *Task Force on Taxation of the Digital Economy, Report to the Minister for the Economy and Finance, et al.* (France: Republique Francaise, 2013).

Moreover, the guidelines state that there is PE if a company's web users are in Israel or substantial marketing services take place in the country (e.g., income from advertising or website promotions is subject to taxation).

Consequently, countries can tax the digital economy by determining a company's PE based on its economic operations and virtual presence. This requires a break with the traditional definition of Base Theory as it does not allow for an evaluation of business models that involve digital transactions.⁴⁷ Therefore, companies with no physical presence and whose goods and services are purely digital need to be registered in each country in which they operate. A registration of digital companies would give tax authorities effective control over the digital transactions made in their jurisdictions. Instead of focusing on a company's physical presence requirement, countries need to evaluate businesses on their virtual presence.

Traditional PE rules, which have been used to determine when a business is liable to pay taxes in a country, have largely been based on physical presence. As a result, these rules have been unable to deal with digital companies that can have a significant economic presence in a country without any substantial physical presence. Therefore, tax authorities need to adopt alternative economic presence indicators to protect taxing rights in the digital economy.

47 A. Skaar, "Permanent Establishment. Erosion of a Tax Treaty Principle," in *Series on International Taxation*, ed. Mason Reimer, (The Netherlands: Kluwer Law International, 1991).

Indirect Taxes

Indirect taxes include any tax levied on the production or sale of goods or services, including on imports and consumption. VAT is probably the most well-known indirect tax, and it is applied to any goods or services that are bought and sold for use or consumption. The end consumer pays the VAT when he or she purchases the goods or services. Therefore, “the burdens of tax collection are placed onto each selling party in the chain: the manufacturers, distributors, and finally the retailer.”⁴⁸ Policymakers use VAT to tax every part of the distribution chain while giving a discount in each cycle.

Indirect taxes pose various challenges and solutions regarding taxation in the digital economy. First, there are often legal exemptions applied to e-commerce when the consumer is in another jurisdiction. This can be resolved by granting less exemptions and, more importantly, by eliminating the preparatory or auxiliary activities of the PE test. Second, the issue of what, how, and where to tax can be resolved by focusing on intellectual property, as the distribution criteria must involve income being attributed to the country where the beneficiary of the payment (resident or non-resident) is located. Alternatively, the distribution criteria can be split between two or more countries.⁴⁹ Third, every P2P, B2B, or B2C transaction needs a defined value, which can be

48 Chris Platteeuw and Pedro Pestana de Silva, *European VAT Compliance* (The Netherlands: Kluwer Law International, 2010), 2-2.

49 Esperanza Buitrago Díaz, “Propiedad intelectual en la mira de la política comercial y tributaria,” in *Lecciones de Derecho Tributario, inspiradas por un maestro*, eds. Germán Pardo and Fabio Londoño Gutiérrez, 956-1006 (Bogotá: Universidad del Rosario, 2010).

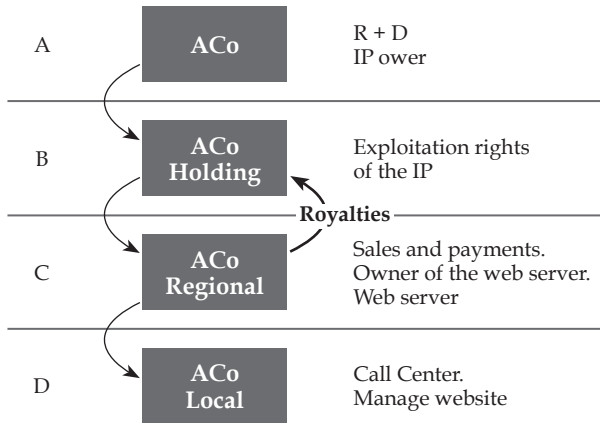
ensured by requiring companies to register if they have a virtual presence the country. Finally, there must be a clear distinction between online and offline commerce. Tax authorities need the ability to identify the origin of online transactions to tax the products or services being sold.⁵⁰ This can be achieved by requiring digital companies to register and share data on where they are conducting their operations. These different scenarios are illustrated in Figure 4.1. (online retailer) and Figure 4.2. (internet advertising).

Online Retailer

Figure 4.1. includes four different countries in which company ACo is present. Each country has its own legal system, which raises the following questions: who is the customer, where is the distributor, and who should be taxed? For example, should ACo Regional be taxed in country C because it is the owner of the web server there, or should ACo be taxed in country A because it finances research and development activities in that country?

50 Jorge Vladimir Pons y García, “El impuesto al valor añadido en las operaciones de comercio electrónico,” in *Lecciones de Derecho Tributario, inspiradas por un maestro*, eds. Germán Pardo and Fabio Londoño Gutiérrez, 1053 (Bogotá: Universidad del Rosario, 2010).

Figure 4.1. Example – Online Retailer



Source: Figure was created and presented by Ariel Andres Sanchez Rojas in the IFA "VI Congreso de Tributación Internacional," in Bogota, Colombia, November 2017.

Internet Advertising

Figure 4.2. includes the Google case, famously called the Double Irish with Dutch Cheese.⁵¹ There are four countries

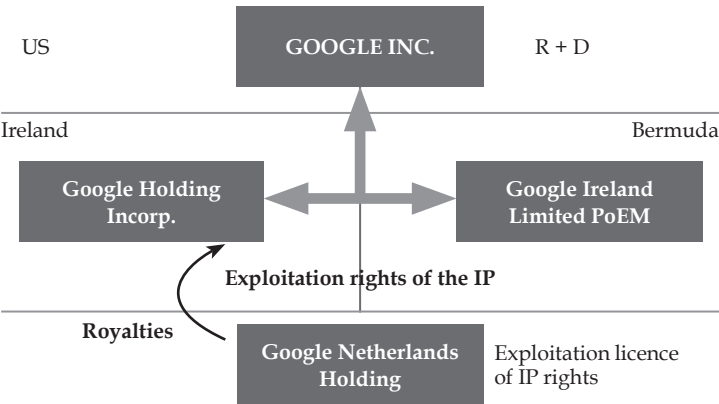
⁵¹ In 2006, Google Inc. made an Advanced Price Agreement with the internal Revenue Service in the United States; they sent most of their IP assets to Ireland where they opened Google Ireland Holding (GIH) (for Europe, Asia, and the Middle East). US laws stipulate that the corporate income tax is paid where the company is incorporated; therefore, Ireland has the right to tax. Once in Ireland, Google opened another company called Google Ireland Limited (GIL) (a company that will exploit the royalties of Google worldwide), which had PoEM in Bermuda. Legislation in Ireland clarifies that the tax residence will be understood where the PoEM is allocated. As a result, the US does not tax Google because it is incorporated in Ireland, and Ireland does not tax because Google's PoEM is in Bermuda.

involved in the case, namely the United States, Ireland, Bermuda, and the Netherlands—each with a unique legal system. In terms of indirect taxation, this raises the question regarding which of these Google companies is the distributor, which is selling the product, and where the company's activities should be taxed. This is an example of online commerce where there is a dematerialization of goods.

In both Figure 4.1. and Figure 4.2., the tax authorities need to follow the rules for different e-commerce transaction models. For B2B transactions, there are three different approaches. The direct use approach allocates taxing rights to the jurisdiction of the customer who is using the good or service. The direct delivery approach allocates taxing rights to the jurisdiction of the customer who is being supplied the good or service. Finally, the recharge method allocates taxing rights to the jurisdiction where the customer is established according to

Following this structure, the royalties are taxed through a withholding tax in the source state, which is the reason why whenever GIL pays royalties to GIH there would be a withholding tax. Nonetheless, Google opened Google Holding BV (GHBV) in the Netherlands so they could receive royalties from GIL. The European Union has issued directives (which are more important than tax treaties) that detail member states should adopt their own tax norms. The directive 2003/49/CE# declared that the unearned income (i.e., passive income) will not be subject to any withholding tax for any member of the European Union, which is the reason why the royalties paid from GIL to GHBV will not be taxed at all. Thus, GIL pays royalties to GHBV that are not being taxed. Moreover, the Netherlands does not apply any withholding tax for any payment of royalties, which is why whenever GHBV pays royalties to GIL there will be no withholding tax either. Therefore, Google pays no tax: Google USA is in Ireland, and Google Ireland is in Bermuda. There is also no withholding tax for royalties in any country.

Figure 4.2. Example – Internet Advertising



Source: Figure was created and presented by Ariel Andres Sánchez Rojas in the IFA VI Congreso de Tributación Internacional, in Bogota, Colombia, November 2017.

the business agreement. For B2C transactions, the tax jurisdiction is the residence of the consumer. The OECD's Consumption Tax Guidance Series provides two options to determine residence: use the IP address, which could be a possible indicator of a customer's location, or use the customer's billing address.

VAT is another indirect tax that deserves to be analyzed more closely. Specifically, should VAT rates only be reduced on electronic goods? A reduction of the VAT rate is commonly made to help an industry survive or grow. However, the cost of producing e-services (e.g., e-books) is usually lower than for ordinary services (e.g., printed books). As a result, only lowering the VAT rates for e-services may be unjust and/or inefficient. The European Court of Justice (ECJ) made a ruling in the case of KOY on whether reduced VAT rates for books published in paper format should be applied equally to books published

on other physical or digital mediums.⁵² The ECJ held that a selective reduction of VAT rates for printed books is only justified if the printed books provide consumers with different needs compared to books published on other mediums, including e-readers.

Transfer Pricing

Transfer pricing rules are used to attribute MNEs' profits to different countries based on an analysis of the company's functions, assets, and risks. Since most of these rules were developed for traditional business models and economic environments, contemporary tax authorities are faced with the challenge of identifying and valuing intangible assets as well as determining their contribution to value creation. Alongside changes to PE rules, transfer pricing rules need to include alternative methods to attribute profit that better capture value creation in the digital economy.

This section will apply the arm's-length principle to the digital economy. First, there will be a description of how transfer pricing works. Transfer pricing will then be analyzed in relation to the digital economy's new business models using three examples: (i) development and enhancement of marketing intangibles; (ii) research, development, and process improvement arrangements; and (iii) payments for using a company name. To apply the arm's-length method to intangibles, the specific transactions have to be determined in order to apply the most adequate functional analysis and transfer pricing method.

52 ECJ: *Case C-219/13*. Request for a preliminary ruling under Article 267 TFEU from the Korkein hallinto-oikeus (Finland): Decision made on April 22, 2013.

How Does Transfer Pricing Work?

There is a difference between juridical double taxation⁵³ and economic double taxation.⁵⁴ In juridical double taxation, the same individual or entity is taxed in respect to the same object by two different authorities. In economic double taxation, the same income is taxed twice from different individuals or entities. Examples of double taxation include one person transferring his or her income to another person or a company transferring its profits to shareholders as dividends.

Transfer pricing is the price established in a transaction between related persons,⁵⁵ or “an international or internal issue where companies rebalance tax through profits.”⁵⁶ This means that the transfer price may be different from the market price (i.e., the price set in the marketplace for the transfer of goods and services between

53 The Capital Export Neutrality (Credit System) or the Capital Import Neutrality (Exemption System) is used to eliminate double taxation in the juridical system.

54 There are two methods to eliminate double taxation in the economic system: (i) direct investments (parent-subsidiary) through (a) participation exemption (exempt dividends received by parents), (b) indirect foreign tax credit (parent receiving foreign tax credit for the subsidiary company income tax; or (ii) portfolio Investments through (a) classical system (no relief), (b) split-rate (lower corporate income tax rate applied to distributed earnings, (c) imputation (all or part of the company income tax is credited to shareholders, (d) reduced (taxation of dividends in hands of shareholders).

55 Professor Brian J. Arnolds uses an example in which ACo manufactures goods in Country A and sells them to its foreign affiliate, BCo, which is a resident in Country B. In this example, the price at which the sale takes place is called a transfer price.

56 Professor Francesco Parlatore (conference, International Tax Center, University of Leiden, Panamá, February, 2017).

unrelated persons). While there is a conflict whenever parties agree to artificially raise or lower prices, persons engaged in cross-border transactions can avoid taxes through manipulating transfer prices. For example, company Y could avoid paying income taxes in country Yc by selling assets to company S, which makes Yc earn little-to-no profit. If the effective tax rate in country Sc is lower than in country Yc, the total tax burden of both companies Y and S would be reduced through the use of artificial transfer prices.

Article 9 of the OECD's MC on associated enterprises states that:

Where:

1. a) an enterprise of a Contracting State participates directly or indirectly in the management, control or capital of an enterprise of the other Contracting State, or

b) the same persons participate directly or indirectly in the management, control or capital of an enterprise of a Contracting State and an enterprise of the other Contracting State, and in either case conditions are made or imposed between the two enterprises in their commercial or financial relations which differ from those which would be made between independent enterprises, then any profits which would, but for those conditions, have accrued to one of the enterprises, but, by reason of those conditions, have not so accrued, may be included in the profits of that enterprise and taxed accordingly.

2. Where a Contracting State includes in the profits of an enterprise of that State – and taxes accordingly – profits on which an enterprise of the other Contracting State has been charged to tax in that other State and the profits so included are profits which would have accrued to the enterprise of the first-mentioned State if

the conditions made between the two enterprises had been those which would have been made between independent enterprises, then that other State shall make an appropriate adjustment to the amount of the tax charged therein on those profits. In determining such adjustment, due regard shall be had to the other provisions of this Convention and the competent authorities of the Contracting States shall if necessary consult each other.

Article 9(1) describes what independent third-party companies should do when transfer prices are adjusted and prices are the same as under transactions involving unrelated third parties (i.e., the arm's-length method). In addition, Article 9(2) describes that an adjustment is only warranted if the other contracting party considers the adjusted profits correctly reflect what the profits would have been if the transaction had used the arm's-length method.⁵⁷ This principle has both strengths and weaknesses. On the one hand, it promotes the growth of international trade and investment by positioning associated and independent enterprises on a more equal footing in terms of tax purposes. On the other hand, both tax administrations and taxpayers could find it difficult to obtain adequate information to apply the arm's-length principle. Also, independent enterprises seldom undertake transactions similar to those of associated enterprises as the arm's-length principle is often difficult to apply.

The application of the arm's-length principle is based on a comparison of the conditions in a controlled transaction with those for transactions between indepen-

57 OECD MC, *Commentaries on article 9.6 "Corresponding adjustments"*. 2016; pp. A-271

dent companies. However, the economically relevant characteristics must be sufficiently comparable for such a comparison to be useful. The OECD's Transfer Pricing Guidelines state that none of the differences (if any) between the compared situations should materially affect the conditions being examined in the methodology (e.g., prices or margins). Alternatively, the guidelines state that the parties should be able to make reasonably accurate adjustments to eliminate the effect of any such differences.⁵⁸ Therefore, comparisons can be made between either internal comparable situations (i.e., between one party, the controlled transaction, and an independent party) or external comparable situations (i.e., between two independent enterprises, neither being party to the controlled transaction).

There are various comparable factors that could be important when determining market comparability. First, tax authorities compare differences in the characteristics of the companies' property or services as they often account for differences in value on the open market.⁵⁹ For instance, important characteristics of intangible property include the nature of the transaction (licensing or sale), the type of property (patent, trademark, or know-how), the duration and degree of protection, and the anticipated benefits from the use of the property.

Second, a functional analysis can identify and compare the economically significant activities and responsibilities undertaken, assets used, and risks assumed by the parties to the transaction.⁶⁰ While one party may provide a large number of functions relative to that of the

⁵⁸ OECD MC, Transfer Prices Guidelines. 1.33.

⁵⁹ OECD MC, Transfer Prices Guidelines. 1.39.

⁶⁰ OECD MC, Transfer Prices Guidelines. 1.42, and 1.43.

other party, what matters is the economic significance in terms of their frequency, nature, and value to the respective parties. Also, different models of the functional analysis could apply, including the OECD's, TPGL's, and US regulations (IRC 482); Porter's value chain (which identifies nine different distinguishable activities in primary and support activities); and the Sturgeon-Gereffi method (which identifies fifteen generic activities relating to labor statistics).

Nevertheless, transfer pricing rules changed under BEPS Actions 8-10, which state that the party that performs important decision-making functions is the only one to enjoy tax benefits. As a result, tax authorities need to perform a substantial analysis of the intangible assets' operations, risks, and capital as well as high-risk transactions to determine which party (i) performs each function; (ii) administers, mitigates, and establishes the risks; (iii) allocates the assets; and (iv) is responsible for DEMPE.⁶¹ This ensures that transfer prices are synchronized with value creation, and that tax administrations can calculate corporate profits to make sure the right company receives the benefits.

Third, the contractual terms of a transaction generally define the responsibilities, risks, and benefits between the parties. These may be determined in written contracts, correspondence or communications between the parties or by the economic principles that generally govern relationships between independent parties. For example, contractual terms can include charges and payments, sales or purchase volumes, exclusivity/non-exclusivity rights, and the scope and terms of warranties.

⁶¹ Development, Enhancement, Maintenance, Protection, Exploitation

Fourth, an analysis of the economic context can be important to determine market comparability. Prices under the arm's-length principle may vary because of the nature of the market, geographic location, market size, availability of substitute goods and services, consumer purchasing power, transport costs, or the date and time of the transaction. All these factors can be relevant in determining comparability.⁶²

Finally, companies' business strategies need to be considered as they can be an indication of comparability. For example, authorities need to evaluate differences in innovation and new product development, the degree of diversification, risk aversion, assessments of political changes, and expectations about the duration of the arrangement.⁶³ These elements of a business' strategy need be compared to its market shares.

According to international custom, an appropriate transfer price is one that meets the so-called arm's-length standard, which is met if the transfer price is the same in transactions among related parties as it is among unrelated parties.⁶⁴ There are five methods to determine the arm's-length transfer price: the first three are commonly referred to as the traditional methods (but cannot be used for intangibles) and are widely accepted in the international community while the last two are only used as a last resort.

⁶² OECD MC, Transfer Prices Guidelines. 1.55.

⁶³ OECD MC, Transfer Prices Guidelines 1.59.

⁶⁴ Brian J. Arnold, *International Tax Primer* (The Netherlands: Kluwer Law International, 2016), 92.

Traditional Methods

The Comparable Uncontrolled Price (CUP) method compares the price charged for property or services transferred in a controlled transaction to the price charged in a comparable uncontrolled transaction.⁶⁵ This method is commonly used for oil, iron, and wheat prices and other products that are sold in the commodities market. It is also useful to estimate the value of a good that does not depend on know-how or the brand.

The Resale Price Method (RPM) begins with a price that has been charged by an associated enterprise to an independent enterprise. The price is then reduced by an appropriate gross margin. Thus, the method involves reducing the price charged at the end of the value chain by the gross margin (i.e., $RP = \text{Gross profit} / \text{Sales revenue}$).

The last traditional method, the Cost-Plus Method (CPM), takes the cost incurred by the supplier of a product or service provided to an associate enterprise and adds the markup (i.e., $CP = \text{Gross Profit} / \text{COGS}$)⁶⁶. This method is often used in cases when the CUP cannot be applied or when there are deep functions within an enterprise and limited risks. When using this method, it is important to analyze the companies' different types of costs (standard, marginal, or full) and establish a clear boundary between the costs of goods and operating expenses⁶⁷—especially during management and financial accounting exercises.

⁶⁵ OECD MC, Transfer Prices Guidelines. 2.13.

⁶⁶ COGS = Cost of goods sold (e.g. raw material, change in inventory, direct labour)

⁶⁷ Maintenance and repairs, salary and wages, and amortization.

Last Resort Methods

Among the last resort methods, the Profit-Split method (PSM) seeks to eliminate the effect on profits in a controlled transaction by determining the division of profits that independent enterprises would have expected to realize from engaging in the transactions. Thus, this method is used to determine how profits should be divided and how the worldwide taxable income of related parties should be allocated, taking into account the parties' individual income contributions.⁶⁸ It identifies the joint profits from the controlled transactions among associated enterprises and then splits the profits on an economically valid basis that approximates the division of profits (which should have been anticipated and reflected in an arm's-length agreement between the parties).

Finally, the Transactional Net Margin Method (TNMM)⁶⁹ examines the net profits relative to an appropriate base that is calculated from a taxpayer-controlled transaction. This method only applies to one transaction, and the taxpayer must establish an arm's-length range of profits for a set of transactions. Tax authorities will only accept the transfer prices if the parties' reported profits from the transaction fall within that range. If not, tax authorities may adjust transfer prices so that the profits fall within the range.⁷⁰ There are different equations available when using the TNMM, including the return on sales (ROS = [Net profit/Sales (net profit weighted to

68 Brian J. Arnold, *International Tax Primer* (The Netherlands: Kluwer Law International, 2016), 97.

69 Comparable Profit Method (CPM) in the US.

70 Brian J. Arnold, *International Tax Primer* (The Netherlands: Kluwer Law International, 2016), 98.

sales]), the markup on total costs ($MTC = [\text{Net Profit} / \text{Total Costs (net profit weighted to costs)}]$), the return on assets ($ROA = [\text{Net Profit} / \text{Assets (net profit weighted to assets)}]$), and the Berry Ratio ($BR = [\text{Gross Profit} / \text{OPEX (net profit weighted to OPEX)}]$). The latter measures the return on the company's value-added functions, assuming they are reflected in its operating expenses (OPEX).

The Application of Transfer Pricing in the Digital Economy

While transfer pricing schemes are commonly used for tangible physical goods, it is much more difficult to apply them to intangible goods in the digital economy. For instance, intangible assets, such as research and development or digital advertisement, are not always recognized as assets in a company's accounting records.⁷¹ Instead, the transfer or use of intangibles such as patents, know-how, trade secrets, trademarks, brands, licenses, goodwill, or contracting rights often have no fixed or comparable value in the market as their value is determined by the owner. Tax authorities are also faced with different types of intangibles such as trade and marketing intangibles,⁷² soft and hard intangibles, and routine and non-routine intangibles.

The OECD has developed different stages for analyzing the transactions of intangibles. First, the legal owner of the intangibles must be identified based on the terms

71 OECD Discussion Drafts. *Chapter VI. Special Considerations for Intangibles* 2016; pp. A-1953.

72 Trademarks, trade names, customer lists, customer relationships, property market, and customer data used in marketing and selling goods or services to customers. OECD Glossary.

and conditions of the contract, including records, license agreements, and relevant contracts. Second, the parties that execute the business functions need to be identified by evaluating the usage of assets and the allocation of risks; the transactions related to DEMPE also need to be identified. Third, the functional analysis should detail the behavior of the parties and the approved legal terms. Lastly, if possible, the arm's-length price for the transactions, used assets, and assumed risks needs to be determined.⁷³

The application of transfer pricing to intangible transactions can be made using three different approaches. The first approach involves the development and enhancement of marketing intangibles and includes an analysis of enterprises involved in marketing or distribution agreements that benefit the owner of the trademark. Here, it must be determined whether the marketer or distributor should be compensated for its work or if it is primarily building brand value. Also, it needs to be determined if all other generated values are the result of performed functions, a utilization of assets, or the assumed risks. Therefore, duties, rights, and legal agreements between the parties as well as the costs incurred need to be analyzed. Moreover, the anticipated value of the intangibles (before the involvement of the marketer or distributor) also needs to be calculated.

The second approach focuses on research, development, and process improvement arrangements. This involves an analysis of the appropriate compensation for research services, which depends on the unique skills and relevant experience of the persons involved, the

73 More on OECD Discussion Drafts, *Chapter VI. Special Considerations for Intangibles* (2016; pp. A-1958).

risks, the usage of intangibles, and if intangibles are controlled or used by another party.

The final approach involves payments for use of a company name, which includes determining the financial benefits of consumers/users when they exploit the brand along with the associated costs and benefits. Additionally, the benefit from performing business functions, using assets, and the assumed risks for the company's brand also needs to be evaluated.

Among the methods used to determine the arm's-length transfer price in the digital economy, the PSM can be used whenever there is a total sale of the rights of intangibles or when a partly developed intangible is transferred. Additionally, the PSM can be adopted when the arm's-length condition can be used for the transfer of intangibles or when non-comparable transactions can be determined (exploitation rights). For example, the company GlaxoSmithKline was forced to pay US\$3.4 billion to the US Internal Revenue Service when it adjusted the transfer prices paid by an affiliate in the US to its parent company for a contract manufacturing markup on costs; this effectively reduced the royalties paid by the US affiliate for the right to sell the company's products.⁷⁴

The PSM can also be more appropriate for digital and virtual PEs, particularly where hard-to-value intangibles are involved. This was the position of the United Kingdom's HM Treasury in its position paper on corporate taxes and the digital economy.⁷⁵ Since the PSM requires taxpayers to attribute profits to any applicable

74 *GlaxoSmithKline Holdings (America) Inc v. Commissioner*, 117 T.C. No.1 (2001).

75 HM Treasury, United Kingdom, *Corporate tax and the digital economy: position paper update* (London: HM Treasury, 2018).

digital enterprises, they can be forced to reveal expenses for research and development or the number of virtual users they have for their products and services in each territory. Moreover, taxpayers can be required to show the data collected in each territory for any business where: (i) the digital business models have different characteristics from traditional ones in terms of how value is created; (ii) there is a significant part of the value of a digital business created where users are based and where data related to the users are collected and processed as well as where digital services are provided; and (iii) the digital business models often rely on intangible assets such as user data and advanced data analytics to extract value from user data.

Conclusions

The creation of a tax framework that provides countries with the ability to tax the digital economy requires Benefit Theory to be deconstructed. The goal is to enable tax authorities to tax companies such as Netflix, Airbnb, and Google even if they have no physical presence in the country. This can be accomplished by using the benefit principle to evaluate where the greatest source of the wealth is located, which means that the right to tax rests on the totality of benefits and services provided to the taxpayer in a specific tax jurisdiction.

Authorities can use direct taxes to tax digital companies through a virtual fixed place of business PE. This would create PE when an enterprise maintains an active business website on a server of another enterprise located in a tax jurisdiction. Alternatively, agency PE can be created, which extends the existing dependent agent PE concept to circumstances in which physical or virtual persons conclude business contracts on behalf of an enterprise. All these scenarios are possible if a company is generating profits in the country through a virtual presence.

Indirect tax schemes can also be used, but they must follow the specific rules of each business transaction. Specifically, tax authorities need to use one of three

approaches for B2B transactions, B2C transactions require the consumer to be a resident of the country, and transfer pricing requires taxpayers to attribute profits to their digital enterprises in accordance with the PSM.

Applying these methods to the case of Netflix in Colombia, the Colombian tax authorities could collect direct taxes from the company if they apply the virtual PE. This is because Netflix can be determined to have a virtual fixed place of business PE in Colombia through its website using which it performs business functions in the country. If Colombia had applied this method to Netflix in 2016, it could have collected direct taxes on profits totaling COP \$329,951,457.00.

Consequently, the new business models of the digital economy, which have reshaped international financial transactions, can be taxed by applying alternative methods of taxation. This marks a turning point in the global economy where the transformative process of ICT has enabled companies to not pay taxes in the countries that they operate in. By returning to the fundamental principle of taxation (i.e., the benefit principle) and applying alternative models of taxation, tax authorities can ensure that companies pay their fair share of taxes, regardless of their business models.

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