

# CHALLENGES OF CORPORATE INCOME TAX IN THE ERA OF THE DIGITAL ECONOMY



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## **ABSTRACT**

Almost 240 years have passed since Adam Smith became famous defending free trade. He probably would have been proud to know that his economic fundamentals are so applicable today, even though a new economic paradigm has arisen: the digital economy, based on the Internet and new digital technologies, which is transforming the way we interact, consume and do business.

New digital based firms are growing faster and apparently, the digital economy has enormously contributed to the economy. Nonetheless, the economic digitalisation is negatively pressuring the current international tax frameworks, concretely to the corporate income tax scheme which was originally designed for physically based businesses. These rules have become obsolete in assigning the tax authority of digital based firm's profits because of the difficulty to identify and to locate its business value generation, which conceives a tax mismatch versus traditional businesses. Therefore, digitalized multinational enterprises are able to reduce their tax burden by shifting profits to low tax jurisdictions with tax avoidance strategies, negatively impacting on public budgets and social fairness.

Accordingly, citizens, policy makers and business managers are calling for solutions, but reaching a coordinated and global agreement is likely to be challenging because it is an international problem tax with many opposed interests. Despite this, the digital economy could offer a great many opportunities for further economic development and therefore, it could bring a higher total surplus.

With this in mind, the Organization for Economic Co-operation and Development and the European Union have put all hands on deck, looking to improve international tax frameworks and to set new rules for such economic revolution due to ensure a fair tax contribution among all economic agents.

## **KEY WORDS**

- Aggressive Tax Planning (ATP)
- Bit tax
- Base Erosion and Profit Shifting (BEPS)
- Common Corporate Tax Base (CCTB)
- Common Consolidated Corporate Tax Base (CCCTB)
- Digital economy
- Internet
- Information and Communication Technology (ICT)
- Tax avoidance
- Tax framework

## RESUMEN

Han pasado casi 240 años desde que Adam Smith se hizo famoso defendiendo el libre mercado. Probablemente él se habría enorgullecido de saber que los fundamentos económicos son tan aplicables actualmente, aunque haya surgido un nuevo paradigma económico: la economía digital, basada en Internet y las nuevas tecnologías digitales, que está transformando la forma en que interactuamos, consumimos y hacemos negocios.

Las nuevas empresas digitales están creciendo muy rápido y, aparentemente, la economía digital ha contribuido enormemente en la economía. Sin embargo, la digitalización económica está presionando el marco impositivo internacional actual, concretamente el impuesto de sociedades, que originalmente fue diseñado para hacer negocios con presencia física. Estas reglas ya son obsoletas para asignar la autoridad tributaria de los beneficios de las empresas digitalizadas debido a la dificultad para identificar y ubicar su generación de valor, lo que concibe un desajuste tributario frente a las empresas tradicionales. Por lo tanto, las empresas multinacionales digitalizadas pueden reducir su carga impositiva trasladando sus beneficios a jurisdicciones con bajos impuestos con estrategias de evasión fiscal, impactando negativamente en el erario y la equidad social.

Por consiguiente, los ciudadanos, los responsables políticos y los empresarios piden soluciones, pero alcanzar un acuerdo global y coordinado es un reto, porque es un problema fiscal internacional con muchos intereses opuestos. A pesar de esto, la economía digital puede ofrecer grandes oportunidades para un mayor desarrollo económico y, por lo tanto, podría traer un excedente total superior.

Teniendo esto en cuenta, la Organización para la Cooperación y el Desarrollo Económicos y la Unión Europea se han puesto manos a la obra para mejorar el marco tributario internacional y establecer nuevas reglas para dicha revolución económica, a fin de garantizar una contribución impositiva equitativa entre todos los agentes económicos.

## PALABRAS CLAVE

- Planificación fiscal agresiva
- Impuesto sobre los Bits
- Erosión de la base imponible y traslado de beneficios
- Base Imponible Común del Impuesto sobre Sociedades (BICIS)
- Base Imponible Consolidada Común del Impuesto sobre Sociedades (BICCIS)
- Economía digital
- Internet
- Tecnologías de la Información y Comunicación (TIC)
- Evasión fiscal
- Marco fiscal

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## LIST OF ACRONYMS

**1Q:** first quarter  
**2Q:** second quarter  
**3D:** Three-dimensional space  
**AEAT:** Agencia Estatal de Administración Tributaria  
**ATP:** Aggressive Tax Planning  
**APP:** application  
**B2B:** Business to Business  
**B2C:** Business to Costumer  
**BEPS:** Base Erosion and Profit Shifting  
**CCCTB:** Common Consolidated Corporate Tax Base  
**CCTB:** Common Corporate Tax Base  
**CESifo:** Center for Economic Studies Institute  
**CFC:** Controlled Foreign Company  
**CIT:** Corporate Income Tax  
**CoC:** Cost of Capital  
**CUB:** Criteris Universitat de Barcelona  
**DPE:** Digital Permanent Establishment  
**Dr.:** Doctor  
**DST:** Digital Service Tax  
**DSM:** Digital Single Market  
**DTA:** Double Tax Agreements  
**DTI:** Digital Tax Index  
**EATR:** Effective Average Tax Rate  
**EBITDA:** earnings before interest, tax, depreciation and amortisation  
**EC:** European Commission  
**ECOFIN:** Economic and Financial Affairs Council configuration (EU)  
**ECON:** European Parliament's Committee of Economic and Monetary Affairs  
**EMU:** European Monetary Union  
**EP:** European Parliament  
**EU:** European Union  
**EU-MS or EU-28:** (28) EU member estates  
**GATS:** General Agreement on Trade in Services  
**GATT:** General Agreement on Tariffs and Trade  
**GDP:** Gross Domestic Product  
**IAS:** International Accounting Standards  
**ICT:** Information and Communications Technology  
**IoT:** Internet of Things  
**IP:** Intellectual Property  
**IP address:** Internet Protocol address  
**IT:** Information Technology  
**LIS:** Ley del Impuesto de Sociedades  
**L/t:** long term or long run  
**MAU:** Monthly Active Users  
**MNE:** Multinational Enterprise



**MTC:** Model Tax Convention

**OECD:** Organisation for Economic Co-operation and Development

**PE:** permanent establishment

**PWC:** Price Waterhouse Cooper

**QR:** Quick Response

**R&D:** Research and Development

**SME's:** Small and medium-sized enterprises

**TIN:** Tax Identification Number

**USA:** United States of America

**VAT:** Value Added Tax

**WIR:** World Investment Report

**WTO:** World Trade Organization

**ZEW:** Zentrum für Europäische Wirtschaftsforschung (Centre for European Economic Research)

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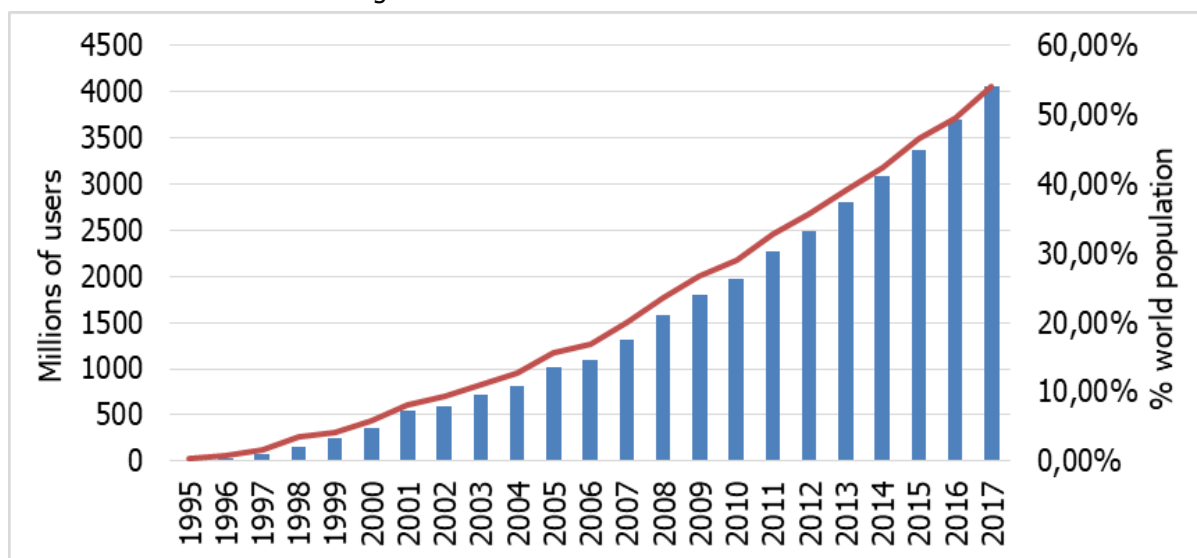
## I. INTRODUCTION

Do you remember when was your first time surfing on the Internet? When did you send your first email? Have you ever used a social media network? How many searches have you done in Google in your entire life? Have you ever booked your holidays through an online platform? When was your last time that you have bought a newspaper? When was the last time that you have used a paper map to get somewhere? How many times have you checked-out client reviews of products or services that you desire?

Nowadays, approximately twenty years since the Internet's commercially set up, half of the world's population is online, one third are registered on a social network, 53% own a mobile phone and in almost everything we do, we use the Internet. For example, every twenty-four hours in the European Union (EU) 20 billion emails are sent, 150 million social media posts are written, 650 million online searches are carried out, 800 million videos are watched online, 40 million calls are made over Internet Protocol address (IP), 40 million photos are uploaded, 500 thousand of blog posts are written, all of it amounting to a total of 400 million gigabytes of internet traffic. (EU publications. 2017)

Figure 1 reveals graphically the statistics of the Internet usage and realises how the Internet and technology have transformed our lives. For further details of these statistics, see the annex I (World Internet usage and population statistics 2017).

Figure 1: Internet users from 1995 to 2017



Source: own creation based on Internet World Stats database 2017

Considering previous statistical disclosures, the economic culmination of this revolution is the digital economy, which is a modern economy based on the Information and Communication Technologies (ICT's) and the Internet, through which a new fully based digitalised industry has risen.

According to the European Commission (EC), nearly 1/3 of the EU-Gross Domestic Product (GDP) growth is due to the burst of new digital technologies. For example, in 2006, only one tech company was among the top 20 by market capitalization and it represented only 7% of the total market capitalization. In addition, at that time those firms were mainly oil firms and banks. Whereas, in 2017, 9 of the 20 largest

companies by market capitalization are tech firms and represent 54% of the total market capitalization –Apple, Alphabet, Microsoft, Amazon, etc.-.

What is more, between 2008 and 2016, the revenues of the five largest e-commerce retailers increased on average by 32% per year; and between 2006 and 2016, digital advertising revenues in the EU have been multiplied by five. (European Commission. 2017.a)

Whereas in the USA, the digital economy has grown an average annual rate of 5.60% in 11 years since 2005, compared with 1.50% growth of the USA economy as a whole. (Commerce Department's Bureau of Economic Analysis USA. 2016)

Thus, the digital economy is growing far faster than the traditional economy and it might display great opportunities to consolidate. Henceforth, the EU is developing the Digital Single Market (DSM), a range of social and economic policies embracing the development of the digital economy, which are making a great contribution up to now. (European Commission. 2016.a)

So, digital technologies are transforming our world, but the tax impact of the digital economy is negative, because the Corporate Income Tax (CIT) framework do not properly enact the digital economy disruption, as they were originally designed for physically traditional businesses.

Technically talking in tax terms, it translates into a misalignment of the place where value is created and the tax rights of countries where a digital based businesses operate. First, because digital based businesses are able to do its business performance without physical presence. Second, because digital based businesses massively rely on intangible assets, which are tricky to value. Third, because business activities are disguised as «auxiliary or preparatory» tasks and thus, are exempted for the residency nexus of CIT, such as automation, user generated content, data collection, analysis, etc. However, these auxiliary activities are closer of being core ones. (European Commission. 2018.a)

Subsequently, more and more evidences suggest that the CIT tax burden generated in cross-border activities usually find ways to avoid paying taxes, such as Amazon, Apple, Google or Microsoft do. They are able them to reduce their tax burden on worldwide income by shifting profits from high to low tax jurisdictions. Concretely, digitalised businesses face an Effective Average Tax Rate (EATR) of 9.50%, compared to 23.20% for traditional business. In sum, digitally based businesses are participating in the economy in unfair playing scenario mainly conducted by CIT loopholes and Aggressive Tax Planning (ATP) strategies. (Spengel, C., Nicolay, K., et al. 2017)

Correspondingly, fighting against tax avoidance has been on the agenda of all tax offices for many years, and the fact that some Multinational Enterprises (MNE's) are able to diminish their tax liability by exploiting CIT loopholes, suggests that the CIT rules are in dire need of deep reforms.

For quite some time now, policy makers have put their attention on this issue and an intense public debate has been triggered out. Specifically intense has been the work of the Organization for Economic Co-operation and Development (OECD) and the EU, which has set out new legislative proposals to ensure that all businesses –digital and traditional– pay their fair tax share. But, this objective would only be possible within common and coordinated enforcement actions.

It should be noted that this issue enacts big challenges and the current international positions are far from an agreement. In the absence of a global confluence, the EU has set out an ambitious range of solution which relies on the immediate suppression of threatening unilateral actions oriented to mitigate the loss of public revenues while risking market fragmentation among EU–Member States (EU-MS).

In this master thesis, I want to analyse a relevant issue for today's economy with singular and challenging characteristics based on my personal interest. Choosing such a topic has been a demanding task because of the extended research that needed to be carried out before formulating a hypothesis, the difficulty to make a decision on the subject and the election of appropriate mentors, and its academic importance, as it could become an enabler in my academic life and my professional future. Indeed, I decided to develop this master thesis in English as a further personal challenge.

The aim of this master thesis is to address, from a comprehensive and multidisciplinary approach, the tax problems raised by the digital economy, analysing the solutions within the existing CIT framework across the EU-MS. After a background description of the digital economy and a reasoning about why the current CIT framework does not fit in, a discussion of the current problem-solutions policies are carried out, concluding with a personal interpretation of the proposed solutions tailored to counteract the digital economy in tax terms limited to the EU environment.

Due to address this master thesis, I laid out the following target questions:

- *What is known about the digital economy?*
- *How businesses operate in the digital economy?*
- *Why the CIT framework is unable to tax the digital economy?*
- *What are the causes and consequences of the digital economy break-up?*
- *Why adapting tax frameworks for the digital economy is an urgent and global issue?*
- *What are the current nations' positions and solutions to counteract the digital economy in tax terms?*
- *How useful and reachable are those tax solutions? What are their pros-cons and technicalities?*

This master thesis has used indirect sources of information, such as legislative proposals, current regulations, news, articles and databases. This master thesis rigorously follows the styling and formal instructions of the master thesis guidelines and the «Criteris Universitat de Barcelona (CUB)». Regarding master thesis references, it follows the current APA style, alphabetically and chronologically organized. Finally, with the purpose of helping the thesis reading, a list of acronyms, a glossary, a detailed table of contents, a list of figures and tables organized by chapter is provided in the initial part of this document.

Finally, although this master thesis might have co-lateral connections with other knowledge fields, I want to emphasize that this thesis strictly focuses on taxation field, and other interconnected matters overreach its objective. However, please, feel free to suggest me further research opportunities.

## II. BACKGROUND OF THE DIGITAL ECONOMY

Chapter II explains the provenance and understandings of the digital economy as a new economic environment. Later, it is broken down the digital economy causes and effects into the CIT.

### 2.1 Historic context statement

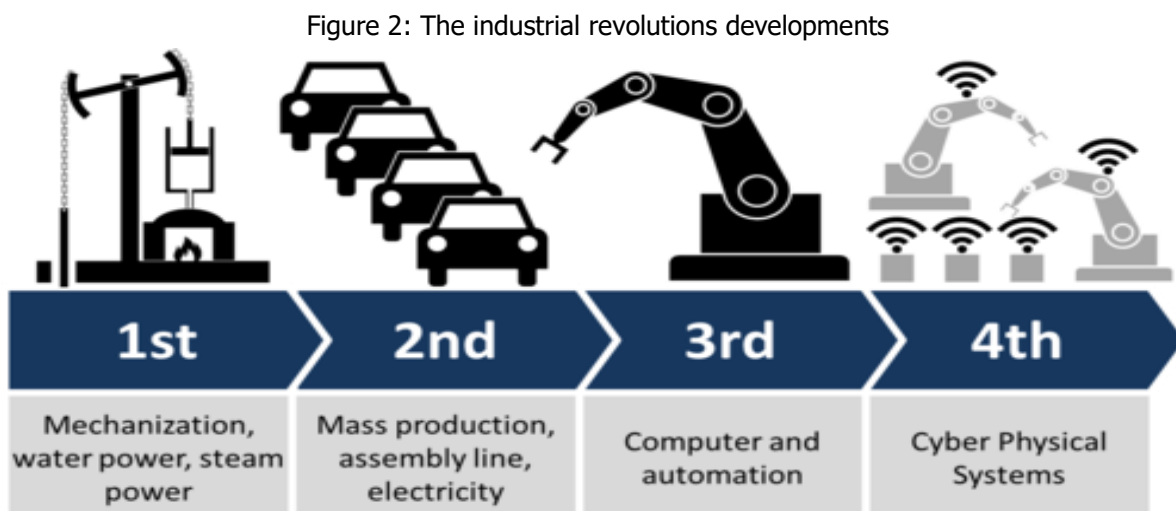
According the Rob Kling, until the end of the 18<sup>th</sup> century, the sources of energy that moved human productions were limited to: fire, animal power, human labour and wind power. Thanks to the James Watt invention of water steam machine, he had risen to the 1<sup>st</sup> industrial revolution, in which traditional workshops were seeping out to new large factories.

Afterwards, at the beginning of the 20<sup>th</sup> century, the appearance of new fuels and electric motor as a new force derived into the 2<sup>nd</sup> industrial revolution. In this revolution there was no restriction placement and thus, the productivity and the industrial diversity markedly increased since it was easier to establish where the production cost were the lowest.

An ulterior 3<sup>rd</sup> industrial revolution has risen at the end of the 20<sup>th</sup> century, blessing by the ICT's which has risen the «information society» and also has triggered the digital revolution, setting the first business performances without physical presence.

Moreover, in the beginning of the 21<sup>st</sup> century, it begins the 4<sup>th</sup> industrial revolution, which consist in the conversion of digital, physical and biological technologies. This revolution is marked by the emerging technology breakthroughs such as robotics, artificial intelligence, block chain, nanotechnology, biotechnology, Internet of Things (IoT), 3D printing and autonomous vehicles, etc.

Figure 2, shows the main characteristics of each industrial revolution referred previously.



Source: Christoph Roser. AllAboutLean.com under the free CC-BY-SA 4.0 license.

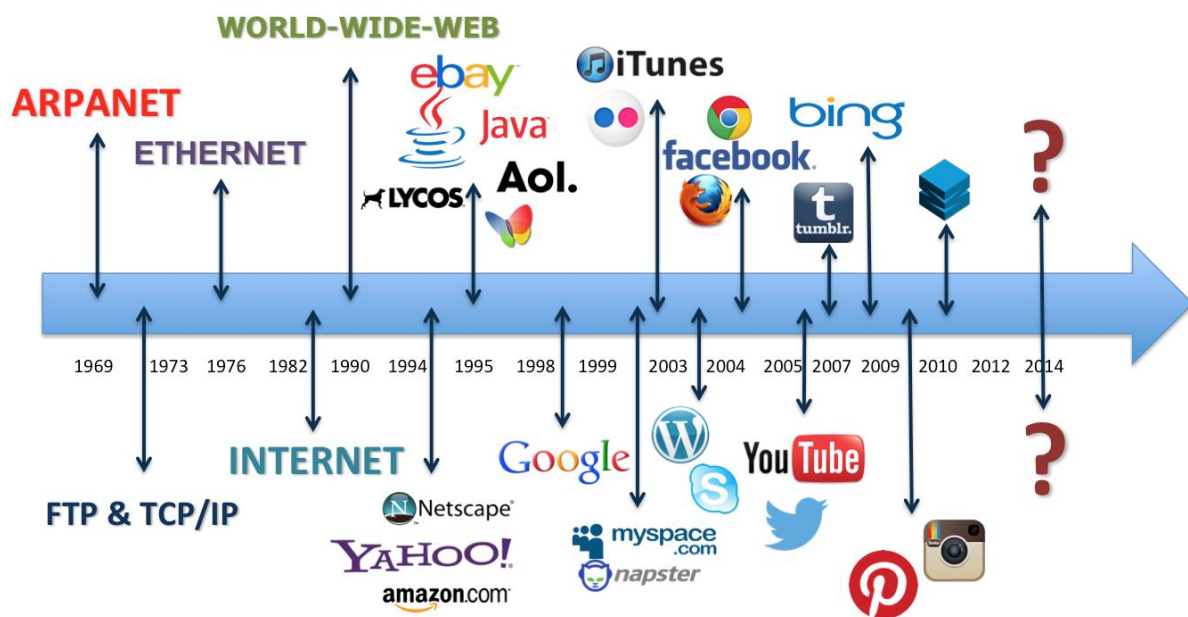
In relation to the last two industrial revolutions –the 3<sup>rd</sup> and the 4<sup>th</sup>–, many analysts consider the Internet and the ICT's as key driving factors. In this sense, the Internet was initially developed in the USA national defence department nearly 1950 and some documents conceived the Internet as a reliable

communication tool during the Cold War. Later, the Internet was commercially conceived and it extended during the 1960s, 1970s, and 1980s worldwide.

Kling places the birth of the Internet suitable for all audiences in 1969 with ARPANET. But, in any case, the Internet has been continuous evolution rather than a punctual event. (Kling, R. Center for Social Informatics Indiana University. 1999).

Figure 3 is an Internet chronogram of its own development and expansion since 1969. In detail, this chronogram contains the Internet main achievements until nowadays.

Figure 3: Internet development since 1969



Source: Malone Media Group 2013

## 2.2 The digital economy definition

Margaret Rouse posted an article in 2016 on the Internet and the ICTs, which have been the key elements that triggered the digital economy. Its disruption is understood as a young worldwide network of economic activities, commercial transactions and professional interactions. (Rouse, M. 2016)

Initially, the digital economy was a synonym of the Internet economy, due to its reliance on the Internet connectivity. But afterwards, the digital economy was defined more advanced and complex economic environment.

So, the digital economy is the economic value derived from the digital environment based on the Internet and the ICT. However, the digital economy is not only limited to the digital-born firms, otherwise to all companies because many firms regularly considered as digital companies do not belong to the ICT sector.

By the way, the World Investment Report (WIR) of 2017 has developed a methodology to classify international digital companies in the following categories (European Commission. 2018.a).

- 1) Digital companies: are characterised by the nature of their operations, which are strongly linked to the Internet.
- 2) IT and telecoms companies: are broadly equivalent to the ICT sector, they are either Information Technology (IT) hardware manufacturers or software developers/providers of IT services, or they are providers of telecommunication infrastructure and connectivity.
- 3) other multinational companies

At this point, it is interesting to oversee the annex II (Sector Digitalization Index of 2015) which shows the degree of digitalization by sector. Concretely, the media and the ICT sectors have the major degree of digitalization. Whereas, on the contrary side, the agricultural sector has the lowest level of this index.

In addition, the following points establish the features of digital economy business operators:

- The main activity is based entirely or mostly on digital goods or services.
- There is no physical link in the creation of goods and services or in their delivery and provision, apart from the existence, use and maintenance of servers and websites or other software.
- Contracts are set remotely, through Internet or telephone.
- Payments are made exclusively through standard cards or other electronic means of payment.
- The website represents the only way used to interact; except of the offices located in the countries where the operating firm is located.
- All or most of the benefits are attributable to the delivery of goods or provision of digital services.
- The client does not know or take into account the fiscal residence of the seller or provider.
- The effective use of a good or service does not require a physical presence of the seller or provider.

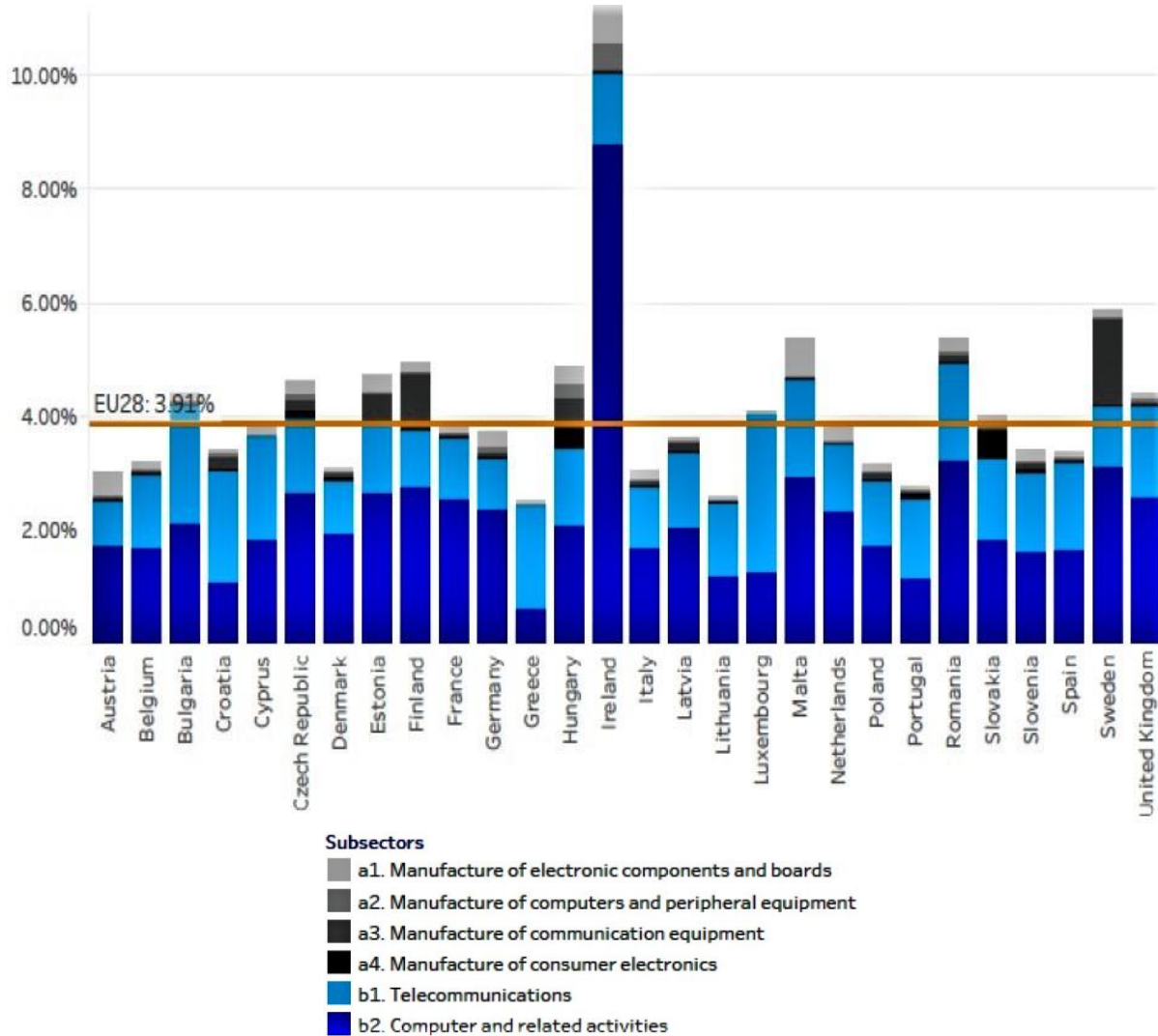
With the purpose to define the scale of the digital economy, figure 4 -in the next page- shows the value added by the ICT sector among all EU-MS in 2014, comprising manufacturing and service activities.

In detail, computer and related activities are by far the largest sub-sector, followed by telecommunications. The ICT services represent more than 90% of the total ICT sector production and grew at much faster rates than the ICT manufacturing activities.

Moreover, table 1 -in the next page- reports the dynamic statistics of revenue growth by sector in 2017, which clearly shows the spectacular increase of digital sector. Concretely, in relative terms, the average revenue growth was in 2017, 14% of the top digital firms, compared to 3% of the IT and telecom firms and 0.20% for other MNE's. Although, total revenue of the largest digital companies was considerably lower than other sectors (European Commission. 2018.a).



Figure 4: Value added in the ICT sector in the EU-28 in 2014



Source: European Commission SWD 81 final. 2018

Table 1: Revenue growth and relevance of intangible assets of largest MNE's in 2017

Type of MNE	Total revenue	Annual revenue growth	Relevance of intangible assets
1) Digital	872 B\$	14.2%	3.1%
2) IT&Telecoms	2,825 B\$	3.1%	1.2%
3) Other	5,682 B\$	0.2%	1.4%

Source: EC computation based on UNCTAD (2017a & 2017b) and Bureau van Dijk Orbis database

For further details about this correlation, please overview the EC report statements added in the annex III (Studies evidencing the link between ATP and intangible assets).

### 2.2.1 The Digital Single Market

Regarding the understandings seen of the digital economy, globalization goes hand in hand and the everyday forward, the international economy is increasingly global-interconnected. For example, in accordance with the EC, in certain employment categories up to 90% of the functions currently requires digital skills (European Commission. 2017.b).

With the purpose of going along this economic evolution, the EC has set the Digital Single Market (DSM), which is one of the current political priorities to successfully carry out the digital economy improvements across the EU. As a curiosity, the following phrase is the DSM motto: «Bringing down barriers to unlock online opportunities» (European Commission. 2017.a).

With more than 500 million potential EU consumers, the DSM would generate great opportunities to transform the EU economy. For instance, the DSM could contribute into the EU-GDP up to 415 billion euros each year, achieving the digital leadership worldwide. Moreover, by shopping online a full range of EU goods and services are available, EU consumers might save €11.7 billion euros yearly (European Commission 2018.b).

The DSM has three priorities. First, improving the access for consumers and businesses to the provision of digital goods and services across the EU. Second, shaping the right environment for digital networks and services letting them to flourish in the digital economy environment. Third, creating a better European digital economic environment due to empower the EU economy (European Commission. 2015.a).

For instance, up to now, the EC has adopted six initiatives up to twenty four legislative initiatives presented since 2015. So, table 2 shows the DSM achievements since then.

Table 2: Achievements of the Digital single market (DSM) since 2015

<b>Achievement</b>	<b>Date</b>
1) cross-border portability of online content services	2015
2) coordination use of the 470-790 MHz band for mobile services	2015
3) elimination of roaming charges	2016
4) facilitate access to published works for blind people, visually impaired or otherwise	2016
5) provision of free public Wi-Fi hotspots	2016

Source: own creation based on the COM (2017) 547 final

## 2.3 Causes-effects in taxation

Every preceding industrial revolution brought up transformations into the economy, and undoubtedly, the 3<sup>rd</sup> and the 4<sup>th</sup> industrial revolutions are doing it too through the digital economy, which has been realising a new economic paradigm.

According to the centre of international tax studies, in tax terms, the digital economy brought up important challenges, particularly, from the direct taxation standpoint. The tax complexities derive from the inadequate location and the qualification of the business profit generated. Both issues causes' considerable legal uncertainty, significant tax conflicts and tax loopholes. By the way, those topics points are the core issues of this master thesis, which is latterly developed in detail.

From the indirect tax point of view, commercial transactions carried out over e-commerce has brought up problems with Value Added Tax (VAT) exemption in the destination country, because goods transmitted have low economic value or singular characteristics or features. This provokes unfair business competition because an electronic seller can offer lower price –thanks to the VAT saving- than those who operate physically present in a market. (Centro Internacional de Estudios Fiscales. 2016)

### 2.3.1 Driver problems identification

The initial CIT framework was conceived from tangible relativity assets, physical business presence and relatively low international mobility. But, nowadays, fuelled by the globalization, the free trade and the increasing mobility, business models have become more complex and international. Consequently, the current CIT rules do not properly fit into this new digitalised economic environment (European Commission. 2018.a).

#### 2.3.1.1 Permanent Establishment mismatch

In the past, having a physical presence were a common requirement for a business to sell into a market, or in the same way, traditional business used to be mostly conducted in a destination location. In contrast, nowadays, having Internet access from a computer or from other electronic gadgets, consumers can order goods and services from all over the world. And notably for digital service provision, this is even more relevant as its provision does not require or might need a little physical presence. So, more and more businesses are conducted remotely from the country of origin -at source- and this process is known as a disintermediation, defined as a dematerialisation of the business performance.

One fundamental consequence that arise in international trade is the determination in which of the intervening States has the tax authority. In order to avoid countries' discussions and international trade, the allocation of taxing rights between two jurisdictions laid down into bilateral Double Taxation Agreements or treaties (DTA). Those DTA establishes the rules of where and how much to tax.

In deep, the majority of the DTA has been negotiated on the fundamentals of the OECD Model Tax Convention (MTC). Concretely, the DTA's across the EU-MS has been almost completed and others within 3rd countries are much extended right now. For instance, according to the Spanish tax office «Agencia Estatal de Administración Tributaria (AEAT)», Spain has signed 103 DTA, while 94 DTAs are in force. (Agencia Estatal de Administración Tributaria. 2018)

The location of business profits in one tax jurisdiction or into another, depends on the existence or not of a Permanent Establishment (PE) nexus. As a matter of fact, this figure is exclusively used in taxation field and takes massive importance because it represents the economic projection of businesses performances' internationally, being similarly comparable to the fiscal residency of natural persons, but only for businesses. In addition, it provides specific withholding taxes, deductions, tax schemes, treaty provisions and definitions, among other things. By the way, this term is also known as the nexus.

Technically talking in tax terms, the PE is defined in the article 5 of the OECD MTC as a fixed place of business through a company performs all or part of its activity. In fact, it is based under two modalities: a fixed place of business -main modality- and as a dependent agent -subsidiary modality-.

Regarding the first modality, the article 5 of the OECD MTC determines the threshold of activities or assets that needs a non-resident entity to carry out its business in a jurisdiction in order to have a PE in that country; which includes -among other places- the following: a place of management, a branch, an office, a workshop, etc. Additionally, for some cases it requires a minimum temporary presence such as the warehouse facilities. (OECD MTC. 2017)

Regarding the second modality or subsidiary modality, this relates to the figure of a dependent agent. It arises when a company has an individual or legal persons that holds the power to conclude contracts that bind to a company or a business, whether or not they have literally been concluded in its name, as long as such contracts are from operations referring to the activity of the company associated.

Under those circumstances, it is convenient to develop an analysis of the OCDE BEPS Action 1 comments' of the article 5 OECD MTC - Addressing the Tax Challenges of the Digital Economy-: (OECD BEPS. 2015)

- Servers and websites

In relation to the understanding of a fixed place –the main modality-, such a fixed place would usually encompass physical premises, facilities and installations used for business purposes, which could also include a server as a nexus facility too.

Servers host websites or an electronic market place -understood as the set of computer applications (software) and electronic data-. So, as long as a server is owned and effectively available for a firm, there is a PE nexus.

Whereas, if a server belongs to an Internet service provider –it is rented- and hosts a website from where the digital firm operates, then, if the server is not potentially available for the enterprise and, consequently, there is not a PE nexus.

The most surprising thing of this approach is the idea of fixed -in the sense of considering an effective and not potential- because a server -for its size- is likely to be transportable, which complicates the understanding of fixed itself and its effective residency nexus determination.

- Independent agent

Respecting the understanding of a dependent agent –the subsidiary modality-, let's approach within a real illustration.

For instance, Cabify is a transportation network company operating within a smartphone mobile application (APP). Its conveyances are realised by vehicles driven by their owners as an independent agent, who pays its social security and therefore, is exempted of PE nexus.

However, it is not what it seems. Cabify drivers sign exclusivity contracts and receive direct arrangements from Cabify APP. Accordingly, it seems more a dependency relationship which entitles PE nexus rather than an independent agent. (Vaquer Ferre, F.A. 2016)

Going forward to the OECD MTC, regarding the first section of the article 7, it stipulates: «*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 PE situated therein. If the enterprise carries on business as aforesaid, the profits of the enterprise might be taxed in the other State but only so much of them as is attributable to that PE.*» (OECD MTC. 2017)

This article means that the profits obtained by a firm operating by a fiscal resident of a State –with residency in terms of the DTA- can only be taxed in another State, in which obtains income –at source-, when in this other State it has a PE.

Apart from this, in cases where there is no DTA, it applies domestic CIT rules, but without a mechanism to ensure a double tax relief at the destination country. In this sense, under the article 7 of the CIT Spanish framework -Ley Impuesto de Sociedades (LIS)- a firm has a Spanish residency nexus if one of those following feature is accomplished (Ley 27/2014, de 27 de noviembre, del Impuesto sobre Sociedades. 2014)

- a) it is founded in accordance with the Spanish laws,
- b) its domicile is in Spanish territory,
- c) its effective management is made in Spanish territory.

So, under these features and especially for the last one, a foreign firm might become a Spanish resident and liable to tax, in principle, for its worldwide income.

Thus, if the jurisdictions involved do not have DTA in force, it results in one of the main tax problems in an international environment. Remember, as it is stated previously, Spain has 94 DTA in force.

Going back to the PE definition, PE nexus has been internationally evolved, but also struggled between the States favourable of the source principle and those favourable of the residence principle. And notably, this issue has been largely debated since the digital economy has disrupted.

In sum, in accordance to the previous precepts and comments, it can be stated that the current definition of PE is deficient to enact the digital economy inasmuch as features of digital based enterprises leave source countries without the tax authority of withholding taxes.

#### *2.3.1.2 Difficult valuation of intangible assets*

A large part of the value of digital companies comes from intangible assets, information and data, which are difficult to economically assess (European Commission. 2018.a).

On the one hand, it is because the International Accounting Standards (IAS) forbids the recognition of the Research and Development (R&D) expenses as intangible assets. As long as these R&D expenditures might generate probable future economic revenues. Thereupon, these expenses do not appear as an asset on the company's balance sheet as long as those expenses are profitable for the firm.

But, if a digital firm is acquired or an intangible asset transferred to a 3<sup>rd</sup> party, the financial statements of these operations must generally recognise intangible assets with an irrefutable proof of fair value. But again, the same problem arises: how to fairly value these intangible assets?

On the other hand, it is because markets tend to attribute their own value to assets, whether recognised or not. In this sense, the gap between firm's book value and its market value is increasing, which

indicates market expectations of future revenue generation. As a matter of fact, check out the previous table 1 showing the relevance of intangible assets by sector.

#### 2.3.1.3 Value chain discrepancies

The ordinary approach of a value chain of businesses is generally generated by the business supplier. Whereas, a large part of the value derived by users of an online platform is created by themselves.

Henceforth, the end-user in the digital economy contributes, either actively or passively, to the value generation: they might receive services for free, but they also provide data that are valuable for a company or it contributes more actively to firm's service provision. For example: by uploading content, making platform contributions, publishing data, etc. By the way, this phenomenon is defined as «unconscious contributor or unconscious employee».

Going back to the taxation of the digital economy, particular products or services can be supplied for free and others supplied for paid, circumstances generating a detachment between business revenue generation and its provision. So, next points classify the origin of its revenue generation:

- Direct payments mean: subscription or transaction payments,
- Indirect payments mean: over the business value generation for monetization as input for other business activities, related or not, such as sales of advertising space on a social media platform.

For in deep understanding, considering the analogy of an advertisement space on the TV. What makes the business difference in the digital economy is the uniqueness personalised advertisement which tracks users from his or her search engine searches.

Overall, value chain in the digital economy results in a blunt deviation of the tax principle of where the value is generated.

#### 2.3.1.4 Business income qualification

The income of the digital economy is harmful to qualify and to define because there is not a unique feature that characterize new ways of doing business. Considering the digital business features of the section 2.2, the following points show some new business models arisen caused by the digital economy disruption (European Commission. 2017.a):

- Online retailers: an intermediary business platform offers a marketplace where user's and sellers can trade in exchange for a commission. The products are sent by mail or by logistics. e.g. *Amazon & Alibaba*.
- Advertising model: it covers two correlated services. It provides free access to services in exchange of personal data collection. Then, these collected data is used to sell targeted advertisements on its own platform or the data is sold to interested agents. e.g. *Facebook or Google search*.

- Digital network granting access to content or solutions: an online platform charges subscription fees in exchange for access to the digital content and solutions. e.g. *Netflix & Spotify*
- Sharing economy or social collaboration: an online platform that manages excess of capacity with real demand with the basis of sharing rather than owning. The platform charges for each transaction provision a fixed or variable commission. e.g. *Blablacar*

So, for example, considering the provision of a book in digital format versus a conventional mean, it should entail the same qualification and the same corresponding tax regime. However, even though is the same good provision, different tax regimes are applied -in VAT terms-, resulting in an unjustified discrimination causing a lack of tax neutrality.

Moving to another precedent, does a computer license constitute a corporate income or a canon? Considering the comments of the OECD MTC article 12: «*Royalties arising in a Contracting State and beneficially owned by a resident of the other Contracting State shall be taxable only in that other State*», the approach qualifies incomes of digital assets as canons, as long as, the effective ownership of the asset is not transferred. (OECD BEPS. 2015)

#### 2.3.1.5 Marketplace domination

Regarding figure 3, the most important firms in the digital economy are fairly young and have quickly created new markets worldwide; these firms entitle these common characteristics (European Commission 2018.a):

- have a fast growing
- have a lot of volatility in the market: rapid increment and loss of its market share
- have a tendency towards monopoly and oligopoly behaviours
- user's contributions is the success of its businesses

Despite the availability of digital tools that helps to reduce economic barriers and to threaten a dominant position, the tendency of digital based firms is towards a market concentration in which few iconic firms are able to competitively survive.

#### 2.3.1.6 New subjects liable to tax

In a near future, would we live in a complete harmony with intelligent robots? This is the future projection of a movie called «*I, Robot*». The process of automation and implementation of artificial creations –robots- would have a potential negative impact on the employability because almost 75% of our daily task have a propensity to be automated. (European Commission. 2017.b)

Therefore, this circumstance is based on the premise that the digital economy might produce a potential negative impact on the direct tax collection and the loss of public social contributions from human workers.

## 2.3.2 Consequences

In accordance with an EC assessment, although the digital economy brought up many advantages and benefits, this section analyses the negative economic consequences of the disruption of the digital economy. (European Commission. 2017.b).

### 2.3.2.1 Opportunities for tax avoidance

Tax avoidance is defined as those actions performed to one's own advantage due to reduce the payable amount of taxes by means that are within the tax law. Tax avoidance causes the subsequent outputs:

- A misalignment of the business value generation and the tax liability

The use of intangible assets, data and users' contributions, does not raise tax problems as long as a firm's activities remain in national or domestic economic environment.

Nonetheless, in a global context, the current PE definition and transfer pricing rules, do not take into account the users' contributions in the allocation of taxable profits, resulting a mismatch caused by the allocation of the business value generation.

- Able to artificially hiding from PE rules

Referring to the requirements of the article 5 of the OECD MTC, it does not make sense for digital based firms because they can carry out its business remotely or without physical presence.

Correspondingly, digital based firms might not effectively have a PE nexus or even if such a PE is determined, digital based firms would find legal arrangements to dissuading the existence of a PE by applying ATP strategies. But, certainly, ATP strategies are within the law.

So, the avoidance of PE determination arises from the misuse of: first, a commissionaire or an agent, who provides products or services on behalf of a foreign firm in a country on its own name; and second, treating some important business functions or activities as auxiliary ones.

In relation to the first issue, a digital based firm can avoid the status of PE nexus because a seller who concludes contracts is an independent agent to whom PE exception is available or because the negotiated business contract is concluded in a different jurisdiction than the effective jurisdictional provision.

In relation to the second, it is related to the qualification of the business activities performed by digital based firms, which achieve the exemption of PE because its jurisdictional performance reach the characteristics of preparatory or auxiliary activities. Precisely because the digital firm efficiently slashes its core business activities into a several small operations in order to claim within this exemption status.

By the way, the EC has recommended the implementation of the amendments of the OECD BEPS action 7 - Preventing the artificial avoidance of permanent establishment status- which defines the following rules (a. OECD BEPS. 2015):



- 1) The regular conclusion of contracts performed by a foreign enterprise should be considered as a sufficient taxable nexus to entitle a PE,
- 2) The exclusion of the PE exemption if a preparatory or auxiliary activity is performed as a core part of the business value generation

- Strategic transfer of intangible assets and profits shifting

Fuelled by the economic globalisation, digitalised firms are able to allocate its intangible assets in a particular jurisdiction due to take advantage from certain beneficial tax regimes, helping them to cut down their EATR significantly and henceforth, its tax burdens.

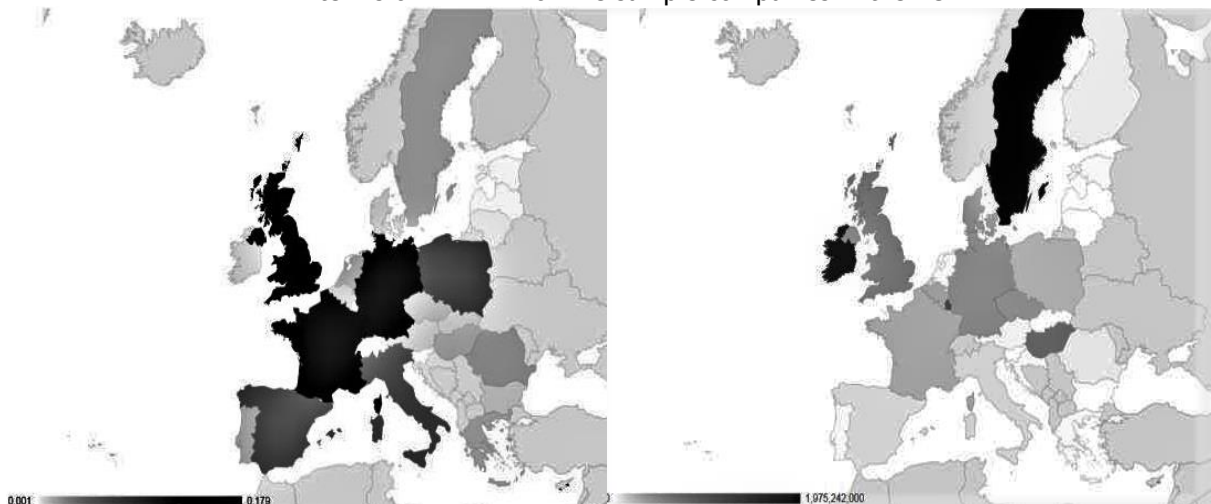
Specially, the ownership of intangible assets is a decisive factor due to determining the profit's allocation and transfer pricing. Transfer pricing arrangements are business transactions between intragroup companies which emerge potential opportunities for ATP strategies within the tax law.

First, because intangible assets are difficult to value, making likely to artificially manipulate. Second, because the preferential tax jurisdiction schemes available, influences the location of certain business activities such as researching, patenting, etc.

Notably, the econometric evidences enforce these statements and approaches the link between ATP strategies and the location of intangible assets. At this point, it is interesting to overview the annex III (Studies evidencing the link between ATP and intangible assets) where it shows eight economic analysis summaries of this evidence.

Figure 5 visually shows the tax misalignment of website user's location and the business profit location in terms of Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA). Accordingly to this comparison, business profit allocations are mainly in Ireland and in Sweden.

Figure 5: Comparison map of the geographical allocation of web visits (left) and profits (right)  
–in terms of EBITDA– of five sample companies in the EU



Source: EC Joint Research Centre, based on Bureau van Dijk Orbis database and SimilarWeb (2016)

### 2.3.2.2 Competitive distortions

Previous consequence might provoke competitive distortions that come up in different forms.

For example, considering different types of firms, it causes different grades of playing fields, not only between those companies that are more digitalised than others, but also, between digital firms that has its residency in a given EU-MS and those that are established in the same market but remotely or those whom minimise tax burden through ATP strategies.

Moreover, it exists an unfair playing CIT environment across the EU-MS tax policies. For instance, some EU-MS has more propensity to tax planning schemes than others. So, a significantly lower tax burden can enable larger digitalised enterprises to force out competitors or to put barriers to restrain new potential competitors, resulting in an economic inefficiency which damages innovation, growth and social welfare.

- Capability to access to tax planning consultancy

Enterprises able to access to tax planning advisory services have higher mark-up's, concretely, 13% higher than enterprises that cannot afford it. So, considering differences in tax burden among firms, it negatively impacts in competitive advantages for those wealthy entities. (Sorbe, S. et. al. 2017)

- Different tax treatment depending on the kindness of business model

According to Price Waterhouse Cooper (PWC) and the Centre for European Economic Research (ZEW), in principle, by extrapolating extreme values and considering similar tax law regimens applied among the EU-MS, digital businesses models face lower EATR than traditional business models.

Remarkably, considering the data of the table 3, digital business models using ATP strategies reach an EATR of -2.30%, whereas the traditional MNE's, 16,20%. This represents a difference, in relative terms, of ~800%. (Spengel, C., Nicolay, K., et. al. 2017)

Table 3: Effective average tax rate (EATR) in the EU-28 in 2017

	<b>Domestic company</b>	<b>MNE's</b>	<b>MNE's using ATP</b>
<b>Traditional business model</b>	20.90%	23.20%	16.20%
<b>Digital business model</b>	8.50%	9.50%	-2.30%

Source: Digital Tax Index, PWC and ZEW 2017

This difference is mainly caused for two reasons.

First, it is because in terms of the computation of the taxable base, favourable tax regulations emerge from the development of intangible assets. In this sense, accelerated depreciation or higher depreciation rates are more beneficial for digital based firms in front of the regular depreciation of conventional fixed assets used by traditional business.

Additionally, digital based firms usually spend more, in relative terms, on developing intangible assets -remember table 1 of the previous section 2.2-.

Second, it is because generally the EU-MS consider R&D activities and the digitalisation process as strategic economic paths of growth and prosperity. So, the EU-MS commonly set important incentives to those activities by reducing EATR of the earnings derived from them.

For further detailed information, please address to the annex IV where it is added the most relevant parts of the Digital Tax Index (DTI) report made by the PWC and ZEW analysis.

### 2.3.2.3 Detriment of public revenues

- Fraud

ATP strategies cut down public revenues, which puts at risk the sustainability of every EU-MS finances. Although it is difficult to isolate the share of digital economy activities, the subsequent paragraphs in which reports some generalist tax fraud estimations (European Commission. 2018.a).

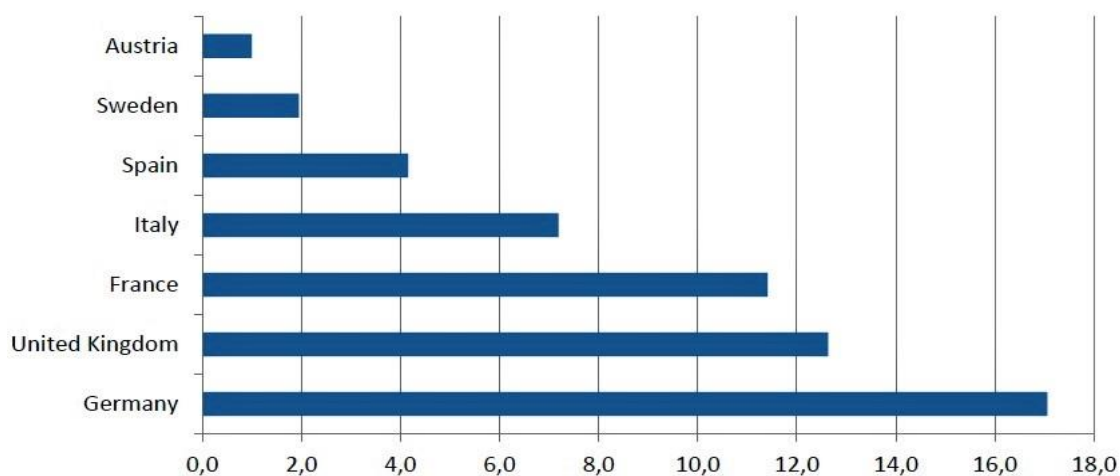
For instance, the CESifo (Center for Economic Studies Institute) estimated in 2018 the impact of CIT BEPS in the EU about 36 billion euros annually or 7.70% of total CIT revenues.

However, the European Parliament (EP) has estimated higher fraud degree. Concretely, for 2017, the EU estimated fraud were 50-70 billion euros, equivalent to 0.40% of the total EU-GDP. In comparison with the USA and Japan, with 101 and 24 billion euros, respectively.

Moreover, according to the report of Oxfam non-governmental organization of 2016, Spanish tax evasion caused by MNE's and wealthy individuals' represented 75% of the total fraud in 2015. Indeed, in the last 15 years, the company investment's in tax havens worldwide has been multiplied by four. The most used tax haven by the IBEX35 –the most important Spanish stock index- companies is Delaware, in the USA (Oxfam. 2016).

Regarding the figure 6, it shows the tax revenue losses per year to tax havens in billion euros in 2017 in absolute terms. In particular, the most affected country was Germany, with approximately 17 billion euros per year and Spain was affected by 4 billion euros.

Figure 6: Tax revenue losses per year to tax havens in billion euros in 2017



Source: Torslov, Wier and Zucman (2017)

- Political decisions to counteract the last financial crisis

The falling down of public revenues and the increasing of public deficits caused by the last economic crisis has motivated an important increment of taxes among the EU-MS. Regarding these tax increases, a trendy weight over indirect taxes has realised in detriment of direct taxes. (Viñas, J. Expansión 2017)

For example, over 28 EU-MS, 22 countries have approved a VAT hike last decade. Whereas, if we compare the CIT nominal rate between 2003 and 2017, all EU-MS have opted, to a greater or lesser extent, to mostly reduce the CIT nominal rate with only one exception, Malta.

Malta maintains a high CIT nominal rate of 35%, but it is a misleading conclusion because it has an advantageous tax regime for whom establish holdings or parent firms in Malta. For further details of these differences, please check out the annex V (Corporate income tax nominal rate comparison between 2003 vs. 2017).

Moreover, in 2003 in Spain, the general VAT and the CIT nominal rate were 16% and 35% respectively. While today, the general VAT has risen to 21% and the CIT nominal rate has fallen to 25%.

In particular, the regressive effect of opting for the increase in indirect taxation is one of the main criticisms. Even so, various studies show that addressing redistribute public policies on the spending side is more efficient and achieves better outcomes than tax policies. (Viñas, J. Expansión 2017)

#### 2.3.2.4 Social welfare and fairness

This relates to digital businesses conducting its activities in a particular State, which are benefiting from public infrastructures and four freedoms. But, non-contributing to the public budgets is seen unfairness by many and could undermine people's ethics. (Gil, I. El confidencial 2013)

As the impoverishment of public budget's raises, in part, from the unfair burden sharing across taxpayers, the society advocates for a new tax framework, more equitable and progressive, improving our social models and cohesion. In this sense, this perception is widely shared even supported by an author of the economic liberalism from two centuries before (Smith, A. 1976):

*"The subjects of every State ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State."*

Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations. March 1776

#### 2.3.2.5 Risk of market fragmentation

As long as a coordinated tax neutralization for the digital economy arrives, some of the EU-MS has called upon for national solutions and the problem has become more critical because introducing specific national tax regimes leads to distortions of competition and might result in a double taxation of cross-border businesses, apart from contributing to an uncertainty to the international environment.

Remarkably, in a public consultation done by the EC in 1Q of 2018, this risk reached 82% of the sample (European Commission. 2018.a).

#### *2.3.2.6 Tax planning strategies*

ATP strategies are tax avoidance structures within the law which MNE's has become more prevalent to use it. With the objective to sum things up, this section briefly aforementioned the seventh most important ATP structures' identified in 2016 by the EC. Its main ideas would be very helpful to assist the understanding of a paradigmatic ATP example of Apple. (European Commission. 2016.b)

1. Offshore loan: it relies on the payment of tax-deductible interest to a tax-exempt non-resident firm.
2. Hybrid loan: it takes advantage of the hybrid mismatch in the qualification of a loan and benefits from a deduction of interest payments in one State in combination with no inclusion into another State.
3. Hybrid entity: it relies on allocating interest costs to an enterprise which is considered a taxable entity in the State of incorporation, and which at the same time is considered a transparent entity for tax purposes in the State of the participants, taking advantage of tax deduction on the interest paid.
4. Interest-free-loan: in certain States do not adjust the taxable income of a company that grants an interest-free loan to a related firm in another State, while at the same time that other State allows the borrowing firm a tax deduction for a deemed interest cost.
5. Patent box or intellectual property (IP): it consists in establishing a multinational group's global operations, that benefits from the advantageous tax treatment of Intellectual Property (IP) income corresponding to a patent box or other specific tax regime, while at the same time another State allows a deduction of royalty payments and does not levy any withholding tax on the outbound royalty payment.
6. Two-tiered intellectual property: it takes advantage of mismatches in the rules on tax residence of a company incorporated in a State. Such mismatches enable the ATP structure to benefit from the deduction for royalty payments under licence/sub-licence arrangements without any inclusion of the received income.
7. IP and cost-contribution agreements: it takes advantage of the allocation of all (or most) of the royalty payments to a tax-free company, and at the same time benefits from R&D tax credit and the deduction of royalties paid in high-tax MS. It represents another example of the IP ATP channel.

In practice, it can be used one ATP strategy or a combination of many with its particular specificities. Apart from this, the previous list does not limit the ATP strategies to only those, in this way, there might be other ATP strategies that probably are not yet identified.

For more in deep information, check out the annex VI (Description of ATP by the EC), where it posts an extended analysis of previous structures.

### *2.3.2.6.1 Apple example*

As an illustration of previous consequences, a recent journalistic investigation known «paradise papers» has exhibited Apple as, a part of being one of the most profitable companies in the world, a master enterprise of tax avoidance. (Zuil, M. & Bowers S. El confidencial 2017)

According to the Apple financial statements of 2017, profits were 44.7 billion dollars outside the USA and its tax burden was 1.650 million dollars, which represents an EATR of ~3.70% approximately far from the OECD CIT EATR of 24%. But, how does Apple achieve this EATR? (Sala, A. El periódico 2017)

Obviously, over an ATP well designed. On the one hand, it is because Apple has used the «double Irish» by years, which is a tax avoidance method. The double Irish consist in creating two firms: one located in a tax haven that holds the rights of intellectual property, brand, patents, etc., and a second firm, located in Ireland where the Irish CIT nominal rate is 12.50% -the lowest in the EU-.

By doing so, the Irish firm centralise worldwide revenues by commercializing the rights of the first firm in exchange for paying a significant amount to the tax haven firm, where they would not withhold any tax or if so, at a very low tax rate.

Apart from this bi-lateral structure, Appel sets others local subsidiaries due to allocate deductible expenses and to mess-up tax offices inspectors. As it is said before, these subsidiaries won't receive any income because revenues must bill into the Irish firm, so, subsidiaries' financial statements would be negative and would not levy CIT.

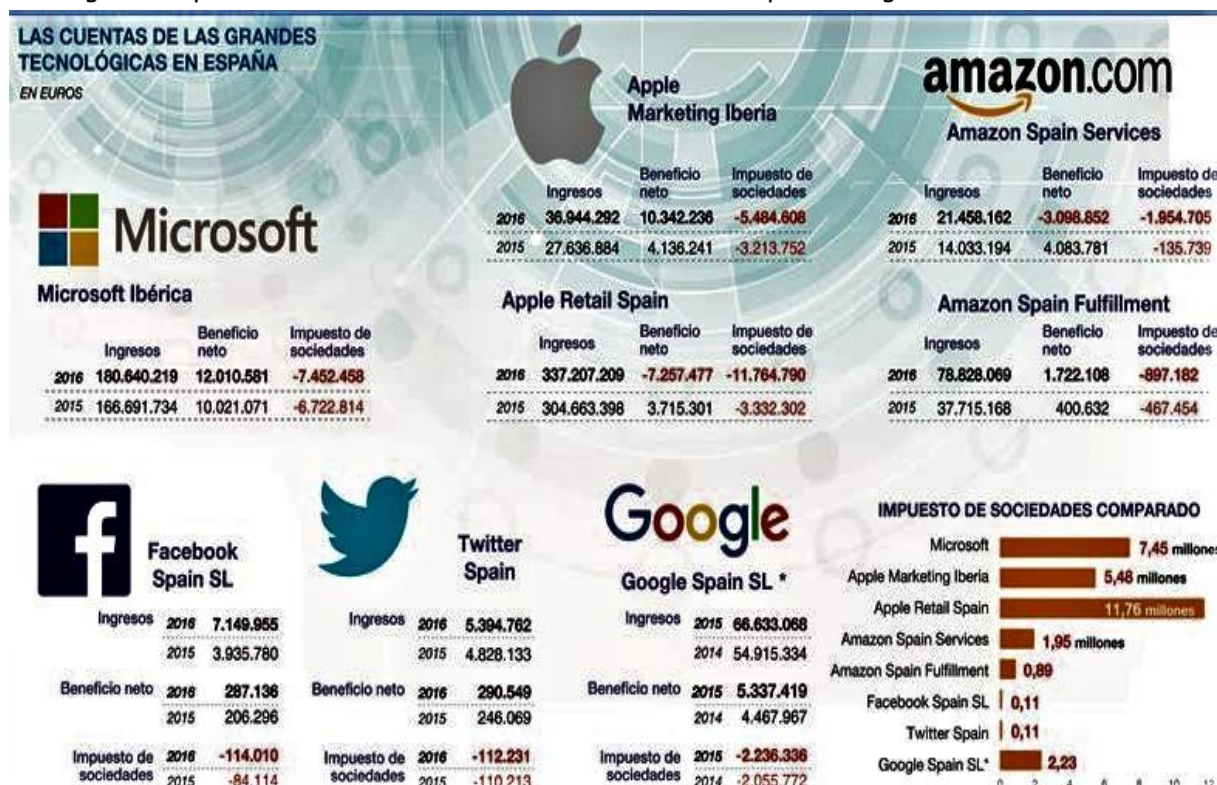
Apart from Apple, the double Irish has been used by other firms. For instance, the figure 7 –in the next page- shows the financial statements of the subsidiaries of the most important digital firms in Spain in 2015 and 2016. As you can appreciate, any of these subsidiaries has accounted positive CIT settlement for both years.

Going forward, another EU-MS that has a very advantageous tax regime is the Netherlands. The Dutch tax mechanism is called the «Dutch sandwich», which is another ATP structure more elaborate than the previous one. Notice, the Netherlands has no withholding tax on royalties, no matter where are paid.

The Dutch sandwich objective is -combined with the double Irish- to avoid the payment of taxes in Ireland by taking advantage of EU Directive exemptions. Concretely, the Dutch firm charges royalty fees for the use of the IP to the Irish firm, and then, these profits are transferred to another firm in a tax haven.



Figure 7: Spanish financial statements result of the most important digital firms in 2015-2016



Source: Sala, A. from public registry of commerce. el Periódico. 2017

After an EU investigation in 2014, Apple decided to move its financial centre in Jersey -a jurisdiction with zero CIT nominal rate- in 2015. At the same time, the Irish government has changed its tax legislation with the purpose to eliminate this ATP structure. But, the fact is that companies already operating in Ireland would still be allowed to use this advantage until 2020.

To sum things up, this illustration gives an accurate example of the causes-effects analysed in chapter II.

### III. RELAUNCHING TAX FRAMEWORKS

Beyond the anecdotal example about Apple seen in the previous section, citizens, governments and businesses are increasingly concerned about the economic imbalances fuelled by the digital economy.

For instance, during the 1Q of 2018, the EC has done an open public consultation and the survey result showed that the vast majority of the respondents (65%) as well as 16 out of 21 national tax offices agreed with the idea that the current CIT rules do not fit into the digital economy environment. Moreover, an overwhelming majority of 82% answered that actions should be done about the current international tax rules in reference to the digital economy. (European Commission. 2018.a)

So, policy makers face harmful adversities to ensure fair and effective taxation to counteract the digital economy disruption, unfolding important tax challenges that can be addressed over multiple possible solutions. These tax challenges are mainly what and where to tax the digital economy. (Centro Internacional de Estudios Fiscales. 2016)

Although the counterpart solutions could result in a negative economic effect, such as worsening businesses competitiveness, nations are looking forward for stable and modern CIT framework able to take advantage of this new market dynamic in a fair and balanced condition's.

Above all, the key tax challenging question is: how to deal with this tax problem? It is a million dollar question. As long as a global and effective solutions realises, the pressure to act would be increasing.

Chapter III overviews these international solutions, first, by briefly overviewing the OECD position and then deeply focusing on the EU perspective. At the same time, this chapter analyse the solutions of a critical technical point of view.

#### 3.1 Solution strategies from international perspective

According to the OECD, at the first stages, tax office's efforts were based on strengthening tax controls to curb new forms of fraud associated with the digital economy. Nevertheless, the OECD concluded that it is not possible to delimit the digital economy with precision, because its challenges and solutions affects basic pillars of international tax frameworks. (OECD. 2018)

There is a general acknowledgement that the digitalisation process would continue ongoing for a long time. Accordingly, the current international desire is to review –and if it is necessary, to adapt- the current tax regulations by extending fundamentals and rules generally accepted, such as OECD MTC and OECD BEPS actions over the world. (OECD MTC. 2017)

For instance, the OECD BEPS action 1 is already delivering great results since over 3 billion euros have been collected thanks to the implementation of new International VAT/GST guidelines in the EU-MS.

In 2017, the OECD received the mandated to deliver a report on the implications of digitalisation for taxation systems named «Tax challenges arising from digitalisation», and in March 2018, the OECD published an interim report which has been agreed, for now, by more than 110 OECD members. In deep, this OECD report provides an in-depth analysis of the main features of the digitalised business



models and its business value generation, as well as the potential implications for the existing international tax frameworks. (OECD. 2018)

Furthermore, the final OECD report of «Tax challenges arising from digitalisation» is planned for 2020, which would describe the complexities, the positions and the reservations due to drive an approach solution like in OECD BEPS actions in 2015. (OECD. 2018)

By the way, at least for now, the different nations' viewpoints identified in the inclusive framework of 2018 can be classified in the following groups. (OECD. 2018)

The 1<sup>st</sup> group of nations considers that the reliance on data and the user's contribution might lead to misalignments between the location in which profits are taxed and the location where value is effectively generated. However, the 1<sup>st</sup> group argues that these factors are confined only to certain business models and do not believe that these factors threaten the existing international tax pillars. Henceforth, the 1<sup>st</sup> group does consider necessary a broad CIT framework change.

The 2<sup>nd</sup> group of nations considers the digital economy and the globalisation a contemporary challenge to continue with the effectiveness of the existing international tax framework, but these challenges are not exclusive or specific for digitalised business models otherwise these challenges are generalists.

The 3<sup>rd</sup> group of nations considers the BEPS actions has largely addressed those concerns related and are generally satisfied within the existing tax system. Nonetheless, the 3<sup>rd</sup> group highlights that is still too early to evaluate OECD BEPS actions implications and they do not believe necessary to develop a significant reform of the international tax rules.

Despite these different approaches and resistances, the OECD member's majority agreed to undertake a coherent and concurrent solutions to ensure a safe environment for the digital economy. Obviously, a global and consensus-based solution would take time, but, the future OECD report would be a key milestone solution for the long-run as the OECD BEPS actions.

Even though, it would be important to continue monitoring the latest digitalisation developments.

### **3.2 Solution strategies from the EU perspective**

Regarding the EU perspective -as one core part of this thesis- a broad and modernized approach to the taxation of the digital economy is needed due to reach the goal of fair and efficient taxation framework, to sustain EU economic growth and to empower the competitiveness through the DSM. Henceforth, the EU has actively supported the OECD BEPS actions. (Loyens & Loeff. 2017.a)

In order to display the digital economy tax challenges across the EU, the EU-MS has been working on few solution approaches in accordance of an international impulse. Thus, the DSM has taken the chance to settle the following approaching objectives (European Commission. 2017.a):

- Equitable: safeguarding business profits to fair tax where the value is effectively generated. Similarly, all business operators in the EU should pay taxes in, a fair proportion, whether or not are large or small, more or less digitized, from outside of the EU or from the EU-MS.

- Competitiveness: generating the appropriate tax environment in the DSM assisting the flourish of all EU- firms, by improving their competitiveness, eliminating and avoiding current tax obstacles. The aim is to encourage innovation and the employability.
- Integrity: convergence towards a common solution due to avoid unilateral measures which would destabilize the DSM, such as market fragmenting and putting market obstacles that are likely to negatively affect the growth and the investment of EU firms.
- Sustainability: guaranteeing the tax framework at long run as much as the digital economy overcomes.

In relation to those previous fundamentals objectives, the Economic and Financial Affairs Council configuration (ECOFIN) has agreed to aim at reaching these objectives as soon as possible. In the same way, the EC released a similar communication during the Tallinn convention on last September 2017. (European Commission. 2017.c)

Going back to the OECD BEPS actions from 2015, the EC suggested to amend advanced solutions motivated by the unstoppable development of the digital economy. In this sense, EU solutions have been divided in two legislative proposals in relation to its legislative scope and time needed for its enforcement (European Commission. 2018.c)

On the one hand, by setting an interim taxes' scheme named Bit taxes that are short-term EU measures to cover the main digital activities that currently escape tax altogether. Concretely, this responds to calls from several EU-MS as a first step of a global reform, nonetheless, the digital economy is a multidimensional challenge likely to take time to reach.

On the other hand, a legislative proposal to harmonize the CIT frameworks at long run as a comprehensive reform, which is also known as CCCTB (Common Consolidated Corporate Tax Base).

The aim of both legislative proposals approaches is to capture digital business activities in the EU as an alternative way of the current international CIT framework, by emending business profits to be registered and taxed where the business value generation is effectively realised. Meanwhile, the EU would actively contribute to a global solution within the OECD.

Considering the legislative maturity of both approaches, the EU legislative proposals are in different stages. As it is explained later on, it is questionable whether a political agreement for its enforcement could be reachable afterwards.

### *3.2.1 Short-run alternatives: Bit taxes*

Bit taxes are a series of tax legislative proposals aiming to address the tax disparity of digital business activities at short-term, and it particularly focuses on non-resident firms. Bit taxes might ensure digital economic activities -which are currently not effectively taxed- to begin to generate immediate revenues for the EU-MS. (European Commission. 2018.d)

Again, these measures are still being debated, but in either case, it might be the first tax counteractions for the digital economy, until a comprehensive reform of the CIT –at long-run- would have been realised.

### 3.2.1.1 New permanent establishment definition

Up to now, the international tax rules have been using the «permanence and tangible» presence nexus to allocate tax rights among OECD nations. And contrary to the current PE seen in the chapter II, as a result of the diluting of the requirement for «permanence» and «tangible» presence, a new interpretation of this concept has come up within the EU, a «virtual or digital permanent establishment» (DPE), which represents an advanced and prominent development for the digital economy environment. (Loyens & Loeff. 2017.b)

Regarding the significant economic presence factors mentioned in the OECD BEPS action 1 (revenue-based, user-based and digital factors), table 4 shows so far an initial pros and cons of the DPE and their main considerations factor's summary. (Kgconsulting. 2017.a)

Table 4: Pros and cons of a new permanent establishment definition

Pros	Cons
<ul style="list-style-type: none"><li>• it could be added to the current international framework</li><li>• Could identify remote revenue transactions</li><li>• Reduces ATP strategies</li></ul>	<ul style="list-style-type: none"><li>• Hard to determine whether a digital factor is local</li><li>• New administrative burdens on taxpayers</li><li>• Incompatibility risk with current international trade and tax rules</li></ul>

Source: Significant Economic Presence. Loyens & Loeff. 2017

#### • Revenue-based factor

Revenues from a country steadily generated by a firm might be a potential indicator of the existence of a significant economic presence. This is based on the assumption of the user's location is generally aligned with the country of the payment. So, it might generally reflect the enterprise revenue's by country.

In relation to the transaction covered, one approach to consider is to include only revenues generated from digital transactions achieved with in-country clients through an online platform. In detail, this transactions coverage would only conclude contracts of goods and services through digital means where the contract primarily relies on automated systems. So, such approach might treat remote digital transactions different from other transactions means such as mail-order transactions or telephone transactions.

But negatively, it could create the incentive to set particular ways due to avoid DPE. For instance, it enables firms to engage in sales transactions abroad by taking advantage of ICT to reach a broader range of customers without penetrating over digital transactions; or to display products on the Internet marketplace and routing the clients into a call-centre to conclude the final purchase.

Henceforth, with the aim to ensure tax liability in comparable situations, revenues-based factor might include a threshold revenues level in accordance to the transactions concluded for non-resident firms operating remotely with in-country consumers and subject to analogous level of levy.

Regarding the revenue's threshold, a proper approach might be the gross revenues generated from remote transactions concluded with customers in each country. However, given the current mobility

and flexibility in setting the location of automated functions of digital based firms, the related revenue-generating activities and its threshold might be easier to manipulate.

With the aim of minimising this manipulation, the threshold should be represented in absolute terms in local currency and audited or monitored somehow because the main objective of setting a level of threshold should be to fix it widespread enough due to minimise the administrative burden for tax offices as well as the compliance burden and a reduction of the uncertainty level among taxpayers.

In this sense, the aggregation rule of correlated firm's group might be accurate to be introduced in order to prevent the risk of artificially fragment sales among subsidiary entities. Even though, if the taxpayer is able to demonstrate that does not artificially fragment its sales for such purpose then, this rule might not apply.

In relation to the management of the revenue's threshold by tax offices, a rigorous application of the revenue threshold would depend on the ability of the jurisdiction tax administration to identify remote sales activities of non-resident companies.

In the same way, it could be troublesome to know when business activities are taking place and at what scale. A viable approach to address this issue could be to set up a mandatory registration system and with this regard, tools introduced to ensure compliance of VAT might be useful.

Nevertheless, considering the previous technical limitations, revenues-based factor might not be a satisfactory indicator in isolation and it should be combined with other factors.

- Digital factors

The ability to establish and to maintain a purposeful and sustained interaction with consumers in a particular tax jurisdiction by online means, depends on the following digital correlated elements:

- 1) Domain name

This element relates to a non-resident firm targeting users in a particular tax jurisdiction. A domain would generally have its equivalence where the non-resident firm establishes its jurisdictional marketplace, usually taking the same or similar patterns.

As an illustration, a main corporate domain name might be «.com», but for a particular enterprise's website targeting one country or a geographic area might likely adopt a domain name reflecting countries or area delimitation such as «.es» or «.eu», with the purpose to greater appealing local or regional users. Thus, generally MNE's and cross-border businesses likely operate in a jurisdiction through a local domain name.

Under such circumstance, a local domain might be an accurate indicator of the nexus in a tax jurisdiction, despite the fact that users from other tax jurisdiction could have access to different local domains from its tax jurisdiction.

Remarkably, the domain name is a reinforced need of corporations' -digital born or not- to protect their trademarks by purchasing related corporate domain names. But, if a firm decides to establish its business without a local domain name, it might result in a negative reputation risk because of its potential domain can be squatting from not protecting its branch name and trademark across various domains.

## 2) Digital platform

The second digital factor is related to having a local digital platform, which relies to the issue in which a non-resident firm usually establishes specific websites to appeal local costumers by taking into account, for example, language and particular cultural norms. Accordingly, local digital platforms might include characteristics attempting to assist the interaction with local users.

Nevertheless, some firms might prefer not to undertake a local digital platform in preference to a global one.

## 3) Payment method

This regards to the appealing local objective of businesses forms of payment methods in its local website. By the way, this element uncovers complicated technical, commercial and legal compliances, demanding substantial business resources.

Although this factor might be less relevant in the jurisdiction's using the same currency, such as the European Monetary Union (EMU) level, it would result in a range of critical requirements in countries where there are restrains on banking regulations or currency controls.

For instance, a firm would achieve a better purchasing customer's experience if prices, taxes, duties and fees are integrated in its own local currency. Consequently, a digital firm would not undertake these investments unless it is worthy for its business development and its profitability.

### • Users factors

This relates to the users elements indicating the level of economic participation of an enterprise in a tax jurisdiction.

#### 1) Monthly Active Users (MAU)

MAU reflect the market penetration level of a firm in a country during a taxable year. This indicator measures the customer's amount in terms of size and «commitment». Even though, reliability and veracity of MAU data might need to be ensured to address fake or multiple accounts, false information volunteered provided by users, etc.

#### 2) Online contract conclusion

This element relies to the regular conclusion of contracts over the dependent agent figure of PE.

Considering chapter II analysis, the DPE might admit the nexus of an «independent agent» if a certain threshold number of contracts are concluded for a period of time.

### 3) Data collection

This element relies to the volume of digital content being collected from residential customers during a taxable year from digital means, such as personal data, searching information, content viewed, product reviews, content uploaded, etc.

But, if businesses do not maintain a separate and comprehensive record of data and it is not stored by country-by-country basis, then, the collected data might not accurately reflect the effective economic participation of a firm in a country.

Up to now, considering these previous factors, it seems irrational to choose the gross revenues as a unique factor because it would be challenging to determine a significant economic presence. Therefore, it might be easy to evidence a significant economic presence if a non-resident firm concludes contracts through a localised online platform in which users are required to sign up providing personal data and uses local payment means.

Under the current EC legislative proposal, a digital platform would be deemed to have a DPE in an EU-MS if it fulfils one of these three benchmarks (European Commission. 2018.c):

- if it exceeds a threshold of 7 million euros revenues in an EU-MS annually,
- or, if has more than 100,000 users in an EU-MS in a taxable year,
- or if over 3,000 business contracts for digital services are concluded

Confirming one of these factors in an EU tax jurisdiction, it might confirm a purposeful and sustained economic participation, leading the right to tax for the benchmark country.

#### *3.2.1.2 Withholding tax on digital transactions*

This initiative consists in a withholding tax on payments of goods and services purchased online from non-resident providers. In particular, this levy was mentioned in the OECD BEPS action 1 and supported under two approaches, as an independent gross-basis final withholding tax or, as a net-basis taxation. (OECD BEPS. 2015)

Henceforth, the EU has not yet debated about this alternative but this master thesis won't miss the opportunity to analyse it too. Even tough, table 5 –in the next page- shows so far the pros and cons of this alternative and also, for the time being, the subsequent considerations. (Kgconsulting. 2017.b) (Loyens & Loeff. 2017.c)

Table 5: Pros and cons of a withholding tax on digital transactions

Pros	Cons
<ul style="list-style-type: none"> <li>• Can target specific payments</li> <li>• Can identify taxpayers</li> <li>• Immediate revenues</li> <li>• Reduces ATP strategies</li> </ul>	<ul style="list-style-type: none"> <li>• double taxation risk</li> <li>• Tax based on the gross amount rather than profits</li> <li>• arbitrary taxation risk</li> <li>• Incompatibility risk with current international trade and tax rules</li> <li>• certain goods or services might be favoured over others</li> <li>• challenging implementation and management</li> </ul>

Source: Withholding Tax on digital Transactions. Loyens & Loeff. 2017

- The scope of the transactions covered

The most useful thing might be to know clearly when the tax applies due to ensure its compliance. That is defining the tax scope as simply as possible in order to avoid unnecessary complexities and disputes. Although defining specific or delimiting types of transaction might be very helpful, on the contrary side, it might induce disputes over transaction understanding and classification, particularly as technology goes forward. In the same way, such approach could lead into differences in the tax qualifications between economically equivalent transactions, creating incentives to organize wilful transaction's due to avoid the levy.

So, with this in mind, it seems more appropriate to have a general scope, ensuring tax neutrality between similar ways of doing business which would increase the consistency of this withholding tax scheme.

- The tax collection

The responsible agent to withhold the tax -often made by a local collector, a customer or an intermediary such as a payment processing intermediary- must adequately access to the data of the covered transactions. This means to well-know the tax scope and trust with its willingness to comply with the obligation to withhold the tax on the transaction concerned. But, certainly, it raises certain risks.

In detail, for business to business (B2B) transactions, a resident firm would reasonably easily comply within its obligations. But in contrast within the B2C transactions, requiring the payer to withhold would might be more challenging as regular consumers have less experience nor incentive to declare it.

Moreover, if this issue is not challenging enough, accomplishing with the tax collection of small amounts from large numbers of private consumers might provoke considerable costs and administrative objections.

In that case, one possible solution for business to consumer (B2C) transaction might be to require payment's processing intermediaries to withhold the tax. But again, further limitations arise because payment processing intermediary has access to the value transaction, but not very much about its description, such as the kindness of the product or the service provided or if was concluded through digital networks. So, payment's processing intermediaries might be unattainable to withhold the tax for the insufficient data.

One solution for this limitation might be to create a mandatory registration system and to set specific bank accounts whereby all non-resident remote sellers must inform about local buyers. Thus, payment's processing intermediaries would withhold the tax only from these specific bank accounts and transaction track.

However, these imply challenging requirements since apart from its compliance and administrative cost, the vast majority of these intermediaries are located in jurisdictions without connection within costumers, creating, again, opportunities for ATP strategies.

- The negative tax impact in relation to trade and other obligations

After the initial technology development and hosting of digital based businesses, the marginal cost of goods and services provisions is limited. Where this is the case, it has been argued that payments made in consideration for digital goods or services share common characteristics with royalties and fees for technical services. So, as a first supposition, the gross-basis revenue might be a predictable indicator of the net business income.

However, for many businesses, providing products and services online might require forward expenditures -such as development, marketing or costumer support expenses- due to the fast development of the ITC and also for the evolution of its market competition. For this reason, setting a withholding tax on gross revenues would might be an imperfect indicator.

Consequently, a solution to reduce this weaknesses impact might be to fix the tax rate at a relatively low amount reflecting the regular profit margins. For example, it could work out a statistical analysis of present profit margins of national taxpayers in similar market conditions.

Equally important, the imposition of a gross-basis final withholding tax to non-resident digital businesses is likely to create substantial international trade conflicts and also within the EU law.

One the one hand, because in accordance to the General Agreement on Tariffs and Trade (GATT) – for product sellers- and the General Agreement on Trade in Services (GATS) -for service providers-, it is required for non-resident sellers or providers to be taxed no less favourable than resident business operators. On the other hand, in the EU it has comparable obligations such as non-discrimination, which would not allow the application of a gross-basis final withholding tax.

Right now, DTA prevent double taxation in cases where a withholding tax is levied, however, withholding tax on digital transactions might not be enclosed by the existing treaties and consequently, a new mechanism would be needed for those countries in which this tax is introduced and also for those treaty partners involved.



Overall, the analysis of the withholding tax on digital transactions cannot be further addressed as there is not much data available. Again, a more accurate approach might be to implement as complementary enforcement within other solutions.

### 3.2.1.3 Digital Service Tax

Equalisation tax is an indirect tax on the turnover created for certain digital activities which escape from the current tax framework entirely. In addition, for the EU environment the equalisation tax is named as the Digital Service Tax (DST). Equalisation tax could be designed in a variety of forms depending on its policy objective, but briefly, there are two possible alternatives. (Rkgconsulting 2017.c)

First option could be to tax the gross value provided to in-country customers or users, paid by in-country customers, and collected by the non-resident enterprises via a simplified registration regime, or by a national intermediary agent.

As a second option, if the policy priority is to tax the value considered directly contributed by customers or users, then the levy might exacted on these data and information collected from them. However, this approach needs few indicators from in-country clients, such as the MAU or the volume of data and the information collected. In either case, accurately measuring both indicators might be technically challenging.

By the way, an existing example of this proposal is in India, where taxes 6% on payments made to non-resident service providers for the use of internet advertising space or correlated services.

Table 6 shows so far the pros and cons of the equalisation tax and the main considerations identified. (Loyens & Loeff. 2017.d)

Table 6: Pros and cons of the Digital Service Tax

Pros	Cons
<ul style="list-style-type: none"> <li>• Relatively easy and quick to implement</li> <li>• Immediate revenues</li> <li>• Reduces ATP strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Double taxation risk</li> <li>• Taxes turnovers and not profits</li> <li>• Incompatibility risk with current international trade and tax rules</li> <li>• Administrative cost</li> </ul>

Source: Equalisation Tax. Loyens & Loeff. 2017

#### • The scope of the transactions covered

It is unclear whether all digital active firms might be affected or only those active in specific branches of the digital economy. Considering the tax issue priority, a chance might be to tax all transactions concluded remotely with in-country customers, but this scope might be very presumptuous.

With the purpose of approaching the scope closely to the digital based businesses, the equalization tax should be applied only to those businesses with a significant economic presence having a DPE.

An alternative could be to delimit the scope of transactions involving through digital platforms and automated systems. Despite the fact that this would create an incentive to conduct transactions through non-digital means, it might strictly spotlight on concrete types of transactions that have generated interest.

But again, focusing excessively narrowly on specific types of transactions might overly restrain the equalisation tax scope. Accordingly, the priority is to set a balanced scope, neither restricted nor wider.

- The international trade versus the CIT framework

As well as within the consideration of the withholding tax on digital transaction regarding international trade, an equalisation tax only applying for non-resident firms might likely to raise significant discussions with respect to the international trade agreements and the EU law.

A potential solution might be to enforce the tax for resident enterprises and also for non-resident enterprises. However, if this approach is taken, presumably consideration would be needed due to mitigate the potential impact of applying both -the CIT and the equalisation tax- under the existing CIT rules.

- The economic viability versus the CIT

Those digital based firms with low-margin could see its economic viability in danger, contrary to those businesses with large fixed costs, which are able to achieve sizeable profit margins once a certain level of sales is reached. Therefore, those digital based businesses with large economies of scale might be less severely economically impacted.

In addition, imposing an equalisation tax raises the risk of double taxation, because the same income would might be levied twice: under the CIT and under the DST. This situation might arise either, in which non-resident entity is subject to equalisation tax and CIT in its residence country, or in such situation in which an entity is resident and is subject to both taxes in an EU-MS. In deep, if the profit of a non-resident firm is subject to CIT in its residence country, then, equalisation tax would be hardly to be deducted in its CIT statement.

With the aim to address this negative concern, it is necessary to design an equalisation tax with the scope clause to withhold business revenues if they would be untaxed or into a very low CIT rate at the destination country.

Going forward, the EC issued the DST on March 2018, concerning those digital business activities where users play a major role in the business value generation. Concretely, the DST shall be applied for all EU-MS since January 2020 and is to be levied on gross turnover at a uniform tax rate of 3 % from the following digital service categories (European Commission. 2018.e):

- Offering advertising space for advertising that is aimed at users of an interface. e.g. *Google*
- Intermediation services directly between (end-)users. e.g. *Airbnb*
- sale or other form of transmission of data collected about users and generated from users' activities.

By contrast, e-commerce platforms and firms providing media content or other digital services are out of DST scope. e.g. *Amazon*

Due to the EU law and non-discrimination clauses of the World Trade Organization (WTO), the DST should apply to all companies without any distinction –residents or non-residents-. However, it is fixed a revenue threshold, which would specifically apply to all these companies meeting a total worldwide revenues up to 750 million euros and EU revenues up to 50 million euros for a financial year. Regarding both revenue thresholds, the DST mainly falls upon USA MNE's and only a few EU firms are affected, predominantly from the media industry.

In the political ground, this legislative proposal has been made by France and it has been supported by 9 other EU-MS, including Germany, Italy and Spain. The estimated revenues for a year is forecast about 5 billion euros for wholly EU-MS. By the way, according to the last announcements made by the public finances Spanish minister, Spain public budget relies on this proposal due to sustain public retirement pensions.

### 3.2.2 Long-run alternatives: CCCTB & CCTB

The current CIT framework obligates the EU firms to meet the requirements of 28 different CIT regimes, which entails a considerable administrative cost and blocks the freedom of cross-border investment within the EU. Moreover, as it is said in the previous chapter II, the ATP strategies -often used by MNE's- has a negative effect on the competitive position of the Small and medium-sized enterprises (SME's), since the SME's cannot afford the high costs of international tax consultancy fees due to reach its businesses abroad efficiently in tax terms.

Therefore, the EU has intended to build a CIT framework oriented towards the future and supported by the amendments made by the OECD related to the governing taxable presence and profit allocation – OECD BEPS Actions-. (OECD BEPS. 2015)

The main compressive tool to drive this objective across the EU is the Common Consolidated Corporate Tax Base (CCCTB), a legislative proposal recently relaunched but that has been debating for a long time. Nevertheless, other comprehensive alternatives has been contemplated. For further details, see the annex VII (Summary of retained and discarded comprehensive policy options). (European Commission. 2018.a)

The CCCTB is a single set of rules to calculate the CIT statement across the EU-MS. Thanks to CCCTB, a cross-border company would might only have to comply with only one CIT statement with just one EU-MS, rather than many different national rule books. Similarly, as the VAT mini one-stop-shop enforced in 2015.

Precisely, under CCCTB a firm filing one tax statement for all of EU business activities would be able to compensate losses from one EU-MS against profits from another EU-MS. Furthermore, in each EU-MS where a firm is participating, it would entitle these hosting EU-MS to withhold, at its own CIT rate, but just the fair jurisdictional profit share of the final firm's financial statement result.

Overviewing the CCCTB origin, the EC launched a broad public debate and it held a series of consultations before publishing two reports about the fiscal barriers on the internal EU market between 2001 and 2003, which triggered the CCCTB legislative proposal. At that time, the euro currency was recently introduced and the desire to make greater Europe was overwhelming.

In September 2004, the ECOFIN gave the mandate to create a working group due to create the most ambitious directive in direct taxation, which had a great participation among EU-MS. (Poza R., Prieto M<sup>a</sup> I. 2012)

In March 2011, the draft of the CCCTB directive was published and it was debated into all EU national parliaments and also, into the EU-Council. Remark here that the opinions expressed by each national parliaments must express its position -in favour or against- of the legislative proposal and their reasoned opinions.

As this legislative proposal was a very ambitious project at that time and it held strong arguments showing that the CCCTB legislative proposal was unlikely to entirely pass in one go. Unfortunately, the CCCTB legislative proposal did not reach the necessary support of the EU-Council. The Council disapproved the legislative proposal adducing that the CCCTB did not meet the principles of subsidiarity and proportionality of the EU treaty.

After reviewing the legislative proposal, between 2012 and 2013, the EU-MS willingness was to develop the CCCTB legislative proposal in a gradual approach and therefore, the Council discussed how to set a headway. In this sense, in June 2013, the Irish Presidency of the Council set a CCCTB roadmap - endorsed by the ECOFIN-, which introduced a two-step approaches blocks.

Concretely, the first five blocks (general issues, basic elements of the common base, anti-avoidance issues, international issues, and operational issues) might be addressed firstly. In relation to the second block, it might be conducted the consolidation and the apportionment among EU-MS, notably when the development of the first five blocks would might be sufficiently advanced and agreed.

Shortly after, in 2015, the EC presented an action plan for a fair and efficient CIT: key areas for action, to fundamentally reform corporate taxation, etc. The EC decided to slash the CCCTB legislative proposal into a two-staged directives due to promote its accelerated progress and improve its management. This slash set as a first step, a Common Corporate Tax Base (CCTB) and as a second step, a «new CCCTB», which should be introduced latterly (European Commission. 2015.b).

The aim of the first directive –CCTB- is to create a single set of rules for calculating a company's taxable profits for January 2019, whereas, the second directive –CCCTB- aims to consolidate profits and to set an apportion mechanism among the EU-MS involved in January 2021.

Both proposed directives would might be mandatory for firms belonging to beyond a certain size of its financial statements. With the objective to reach a degree of coherence between two steps legislative approaches, firms might need to meet the conditions for consolidation in order to fall within the mandatory scope of the CCTB, which would ensure that once the CCCTB initiative realises, all taxpayers under the rules of the common base –CCTB- would automatically move into the CCCTB scheme.

In order to ensure a correct functioning of the EU internal market, the EU CIT framework should shape in accordance with the principle that firms should proportionally pay tax into the jurisdictions' where their profits are generated.

Thus, even though the approval of these directives is a hard nut to crack, the EP agreed the need of ensuring the simultaneous entrance on force of both directives, because, together are aimed to plugging the referred tax gaps which allow digital based firms and MNE's to drastically reduce their tax burden.

With this in mind, the last advance on this issue was during the 1Q of 2018, when the EP approved -in a consulting procedure- both directives, amending its simultaneously transposing Directive provisions and effective implementation on January 1<sup>st</sup> of 2020. Even though, both directives would pass in the Council debate for its consideration requiring its unanimous agreement (European Parliament. 2018.a).

#### *3.2.2.1 Common Corporate Tax Base (CCTB)*

The CCTB directive is one of the two-stage approach towards an EU CIT framework harmonization in accompaniment of the CCCTB legislative proposal. The essence of the CCTB is to fix the same rules for calculating the CIT base, including certain provisions against tax avoidance and international dimensions. Highlight that the CCTB might not harmonize CIT nominal rates -ranging from 10% in Bulgaria to 35% in Malta in 2017 (European Parliament. 2018.b).

Point out that, in accordance with the EC, the CCTB should be in force since 2019 and not simultaneously within the CCCTB but after an EP consultation in 2018, there is a chance that the enforcement would might be simultaneously in 2020. Regarding the text adopted by the EP in 2018, next points summarize the CCTB legislative proposal (PWC. 2018):

- The scope

The CCTB shall concern the group of firms established under the laws of an EU-MS, whose consolidated turnover exceeds 750 million euros of the preceding year. Similarly than the revenue threshold of the Digital Service Tax (DST). However, companies that remain below this threshold might be able to adopt it too. Also, it is remarkable that CCTB revenue threshold shall be lowered to zero over a maximum period of seven years.

More accurately, the CCTB should be applicable to firms established under EU-MS laws -including its PE in other EU-MS - and for PE's of a company established under the laws of a third countries that are located in an EU-MS.

- The Digital Permanent Establishment (DPE)

As a further step of the previous DPE seen on the short-term solutions, DPE of the CCTB shall be wider. So, DPE pursues the following benchmarks:

### 1) Revenues-based factor

Exceeding annual revenue of 5 million euros yearly from remote transactions generated from digital platforms in EU-MS without being resident for tax purposes.

### 2) Digital-based factor

- or, at least, 1.000 registered MAU visited the digital platform,
- or, at least one hundred digital contracts monthly concluded within the EU-MS customers
- or, the volume of digital content collected by the taxpayer in a taxable year exceeds the 10% of the group's overall stored digital content.

## • The deductible expenses borderline

### 1) Research and Development expenses

Firms expending up to 20 million euros in R&D expenses in a taxable year, shall be entitled to receive a tax credit of 10% of the costs incurred, including staff cost -wages, subcontractor's agency workers and freelancers-.

### 2) Borrowing costs

Exceeding borrowing costs shall be deductible in the taxable year in which they are incurred, whichever of these variables is higher:

- a maximum of 10% of the EBITDA
- or, a maximum amount of 1 million euros

### 3) Non-deductibility of expenses paid to beneficiaries in a tax haven's

The CCTB limits the deductibility of those expenses paid to beneficiaries located in a non-cooperative jurisdictions for tax purposes according to the EU list of March 25<sup>th</sup>, 2018. The current countries in the list below are those that refused to engage with the EU to address tax good governance. In agreement with the Council, this list is yearly revised. However, it can be updated at any time (European Commission. 2018.f):

American Samoa



Samoa



Guam



Trinidad and Tobago



Namibia



US Virgin Islands



Palau



- Specific exemptions

Retained earnings by cooperatives and consortiums are deductible whenever the relief is allowed by fiscal national CIT law.

- Losses incurred

Losses incurred in a taxable year by a resident taxpayer or a PE of a non-resident taxpayer might be carried forward and deducted in subsequent tax years, up to a maximum period of 5 years.

- Classification changes of Controlled Foreign Company (CFC)

An entity or a PE which its profits are not liable to CIT or are exempted in the EU-MS of its headquarters, shall be treated as a CFC and would be subject to CIT a maximum rate of 15 %. In any case, this limit shall be revised in line with the economy developments.

- EU Tax Identification Number (TIN)

The CCTB emends to the EC to legislate for a harmonised common EU TIN before 2019, in order to make automatic exchange of tax information more efficient and reliable across the EU-MS.

- Measures against tax treaty abuses

The CCTB directive introduces measures against tax treaty abuse by recommending the amendment of bilateral tax conventions, containing the following:

- a clause ensuring that treaty parties undertake the commitment to establish measures whereby the CIT rely where economic activities take place and where value is created
- a commitment to fight against tax evasion and ATP
- a clause for a principal purpose test based on a general anti-tax avoidance directive rules

- The automatic tax exchange information system

In order to guarantee full transparency and the proper implementation of the CCTB legislative proposal, the information tax exchange shall be automatic and compulsory, as laid down by Council Directive 2011/16/EU.

Therefore, the EU-MS shall allocate adequate staff, expertise and budget resources to their national tax offices as well as resources for the training of its tax staff focusing on cross-border tax cooperation and on automatic exchange of information in order to ensure full effective implementation.

- The reporting

The EC shall, in ten years after the entry into force, to communicate its findings in a report aiming to take those findings into account for the design and implementation of national CIT, accompanied, if it is necessary, by a legislative proposal to amend this CCTB directive.

In accordance of the CCTB supports, the Parliament's Committee on Economic and Monetary Affairs (ECON) has endorsed it in February 21<sup>st</sup> 2018 by with 39 votes. Afterwards, in March 15<sup>st</sup> of 2018, the EP, approved CCTB by 451 votes to 141, with 59 abstentions (European Parliament. 2018.b).

### *3.2.2.2 Common Consolidated Corporate Tax Base (CCCTB)*

The CCCTB legislative proposal is the second stage approach towards an EU CIT framework harmonization, which is built in correlation to the CCTB –first approach-. The CCCTB sets technical tax rules to the consolidation of the tax base and the apportionment of the consolidated base among the EU-MS (European Parliament. 2018.c).

Point out that, in accordance with the EC, the CCCTB should be in force since 2021 and not simultaneously within the CCTB. But after an EP consultation in 2018, there is a chance that the enforcement would might be simultaneously in 2020.

Regarding the text adopted by the EP in 2018, there are some of the characteristics shared within the CCTB legislative proposal, such as the turnover threshold and the DPE. Next points summarize the CCTB legislative proposal (PWC. 2018):

- The consolidation and losses incurred

The consolidated tax base of an EU group of companies during a computable tax period is assigned to one single entity. Therefore, the aggregate tax basis of a group might be retreated in order to eliminate all profits and losses, whatever its nature, between firms within the same group. If the consolidated tax base is negative, the group shall be compensated for next positive results for a maximum period of five years.

- The apportionment

Taxable profits shall be shared between the different EU-MS where the company operates. Regarding the formula for the allocation of the consolidated tax base of the EC, the following three factors are taken into account, which have an equal weight and shall be measured at the end of the tax year in each operating EU-MS.

- 1. labour,
- 2. assets,
- 3. sales,

In addition, considering the last consultation of the EP, a fourth factor is added in the CCCTB legislative proposal, which is the data collected and exploited by digital content users.



- The compensation system

In order to compensate among EU-MS for sudden public revenues shocks arising from fiscal gains and losses caused by the transition into this new CIT regime, the EC should establish a temporary compensation mechanism for an initial period of seven years and financed by the fiscal surplus from those EU-MS that experience gain fiscal revenues. This compensation mechanism shall be yearly adjusted in accordance with the CCCTB development.

In detail, the EC is amended to propose the terms and conditions to allocate a part of the fiscal revenues generated by the CCCTB to the budget of the EU in order to proportionally reduce EU-MS contributions to the same budget.

- The implementation report and review

The EC shall, in five years after the entry into force the CCCTB, assess its application and reporting to the EP and also to the Council about the CCCTB operations and the results.

In accordance to the CCCTB supports, the EP was approved on March 15<sup>th</sup>, 2018 by 438 votes to 145 votes, with 69 abstentions -which is only consulted- (European Parliament. 2018.c).

Table 7 shows so far the pros and cons and their considerations of both legislative proposals altogether.

Table 7: Pros and cons of the CCTB and the CCCTB

Pros	Cons
<ul style="list-style-type: none"> <li>• Promotes cross-border business activity, trade and investment</li> <li>• Avoids the risks of a double taxation</li> <li>• Reduces ATP strategies</li> <li>• Guarantees consistency of EU-MS budgets</li> <li>• Reduces administrative cost,</li> <li>• Empowers firms and legal certainty</li> </ul>	<ul style="list-style-type: none"> <li>• apportionment mismatch</li> <li>• limited scope</li> <li>• loss of sovereignty</li> <li>• reluctance to transformation</li> <li>• unclear tax collection</li> <li>• Incompatibility risk with current international trade and tax rules</li> </ul>

Source: own creation based on the data of 2016/0337(CNS) and 2016/0336(CNS) of the EP 2018

- Limited scope

Both directives does not offer a structural solution to tax challenges of the digital economy because companies not subject to its scope, might remain subject to the standard profit allocation rules. For instance, a non-resident firm in the EU without DPE or significant economic presence in any EU-MS, might not be liable to tax under CCCTB.

However, even companies applying the CCCTB scheme, tax problems with digital economy remain. Similarly, if a firm has sales in few EU-MS but with only one DPE, the consolidated profit should be allocated on this unique DPE, excluding the tax share of other EU-MS even though the company carried out activities in their jurisdiction.

- The apportionment mismatch concentration

If a firm has subsidiaries in all or in a few EU-MS, but it has its network concentrated in one particular EU-MS, the formula of apportionment might unfairly allocate the entire tax base of a company group where the main business network is allocated, which unfairly catch-up the tax share from other EU-MS subsidiaries.

- The economic improvement and certainty

Both legislative proposals shall be very helpful for a stable and transparent wide CIT system -enshrined in the EU law-, empowering legal certainty, economic stability and fairness among EU-MS, for these three reasons.

First, because it might provide companies a much greater legal certainty by reducing tax obstacles such as double taxation and trade conflicts.

Second, it might improve the EU market: firms might have a higher degree to innovate, to develop and to grow as market competition rises, resulting in a higher level of productivity, employment and economic prosperity. Concretely, it is forecast that the investment and employment thanks to the CCCTB might grow ~3.60% and ~0.50%, respectively, and the EU-GDP might increase up to 1.30%.

And third and as a last argument, time and cost compliance are expected to decrease 10% and 2.50%, respectively, while the time spent in setting up a subsidiary might decrease up to 67%, making easier to set up an international business.

### **3.3 Strategies headed for a failure**

Previous EU solutions might seem fantastic improvements to solve the digital economy tax problem, but regrettably, there are some supporters and opponents to them.

Firstly, it is unclear what consequences might bring these strategies on the tax collection and for how much each EU-MS stand to win or lose. Indeed, under the banner of fighting tax avoidance, some policy makers may be attempting to rewrite the CIT rules in the benefit of large EU-MS because they feel that they deserve their piece of this new tax pie.

So, proposals receive scepticism arguments and reservations, because of some legislative proposals have not worked in the past and also, some of them has brought «experiments» likely to repeat to failure as the original CCCTB few years ago. For instance, Denmark, Ireland, Luxembourg, the Netherlands and Sweden oppose both legislative proposals on grounds that it goes against the principle of subsidiarity (European Parliament. 2018.c).

Secondly, there are a lot of concerns and hesitations among EU-MS. Henceforth, legislative proposals are subordinate to the unanimity rule of the EU-Council and regarding the ambitious timeline for its adoption, it is unforeseeable the scenario of its enforcement which adds more pressure to act at national level.

Thirdly, a lobbying coalition of MNE's has warned about EU legislative tax reforms and has tipped-off that if these legislative proposals realise, they would move forward to counteract them as like as Apple did in 2015.

As a last worsening note, a rising of Euroscepticism is also threatening the EU stability and its policies, and in this sense, Brexit does not help at all. So, the update of the international tax regulations to counteract the digital economy is facing cogs in the wheels.

## IV. CONCLUSIONS

- **The digital economy has revolutionized the economic environment.** It is imperative to realize the entire economic value generated during the last twenty years, thanks to the Internet and the information and communication technology, which are key factors of the digital economy disruption. Likewise the previous industrial revolutions, this new economic environment have brought up higher social welfare and economic growth, and further developments would lead a major global large-scale economic convergences. So, we should make use of this great opportunity to reinforce the future of our economies and tax frameworks.

- **The future development of the digital economy follows a forceful growth path.** Judging the exponential trend of the digital economy over these years, the digital economy is not a passing fad and its development would continue raising as long as the information and communication technology advances, which would surely realise new business opportunities. Therefore, traditional firms would become more and more digital, restructuring themselves into a modern digitalised business.

- **The current tax frameworks are ineffective to properly tax the digital economy.** The current tax framework was created for «brick and mortar» businesses –having physical presence and tangible assets–, but, caused by the boost of new forms of doing business of this new economic environment, the current corporate income tax framework has become obsolete. Correspondingly, digital based firms do not rely on traditional residency nexus precepts, leading a misalignment allocation between the value generation and the jurisdiction tax right. Moreover, even if there is a permanent establishment nexus, taxes can be avoided by using aggressive tax planning strategies thanks to the existent advantageous tax regimes, which pushes tax burdens down.

- **New subjects liable to tax.** Originally, business value generation was made by suppliers, whereas, in the digital economy, consumers contribute, either actively or passively, to the business value generation. So, the digital economy change's creates tax barriers in determining where and by whom business value is created. Apart from this, in a foreseeable future, robots and artificial intelligence could substitute our jobs and become liable to tax too.

- **The sustainability of public finances is at risk.** Tax evasion, tax avoidance and aggressive tax planning strategies provoke unfair tax burden sharing across taxpayers, constraining budgeting to finance our social estate and impoverishing welfare. In this sense, non-contributing taxpayers are unfair and seldom considered immoral, otherwise, they are considered smarter. So, the social commitment should be to fiercely fight against social injustices due to reach the maximum social welfare of Pareto-optimality.

- **An international common and coordinated approach is desired.** Offering country-specific tax solutions for the digital economy conduce to negative economic impacts such as business uncertainty, double taxation, market fragmentation, etc. By setting a common and coordinated international approach, the digital economy would not find arrangements to circumvent its tax liability and thereupon, the taxpayers would might proportionally financing the public budget. If not, the digital economy might lead an increasing political pressure to raise taxes and cut down public expenditure. However, enforcing an international tax solution might require harmful efforts and uncertain demanding adjustments in relation to its compatibility with the WTO, OECD and other international agreements.

**- The enforcement of the EU tax legislative proposals is destined towards failure.** Many legislative proposals are being debated in the EU, which is creating a bottleneck to faster counteract the digital economy tax problems. In this sense, it is unpredictable if the current legislative proposals would realise with a reasonable time span since its legislative scope is narrow and face many technical limitations. So, EU-MS are reluctant to its enforcement because there are opposed interests and it is unclear for how much each EU-MS would benefit or loss.

**- Solutions are projected towards obsolescence.** The main goal of the EU legislative proposals is to come up with a fair and efficient taxation system, adapted to the 21st century economy. Nonetheless, the time path of its legislative procedures is slower than the speedy development of the digital economy. While governments struggle with the scarcity of legal and technical tools of the tax solutions, globalization and ICTs are advancing far faster, which might make new tax laws and reforms quickly becoming obsolete.

Considering the whole master thesis, the author makes the following final personal judgments.

**- The modernization of public tax offices is crucial.** Public tax offices cannot remain on the sidelines of the digital economy. Subsequently, the key factor for the public tax management is its digitalisation, with the aim to provide an efficient service, saving taxpayer's time, expenses and troubles. Moreover, it might reduce tax collection costs, enhance tax compliance and fight against fraud. So, with the aim to reach these objectives, tax offices need to hire and prepare personnel specialized in tax management, well-prepared in languages and high ICT skills.

**- The EU fiscal union is needed.** The financial crisis of 2008 and the European debt crisis of 2012 has evidenced that the European monetary union cannot work without an EU fiscal union. Even though the legislative proposals seen on this master thesis are in line to reach the ambitious fiscal union somehow, taking advantage of the unforeseeable setting of EU tax solution for the digital economy, the EU could seeding the fiscal union due to take the edge off unpredictable future macroeconomic crisis.

**- Tax law should amend tax ethics into firm's corporate social responsibility policies.** It should be mandatory for firms publish tax compliance information in its CSR report, because while some firms spend millions euros in «voluntary charitable donations», at the same time they are able to evade taxes for many millions more which is far from ethical.

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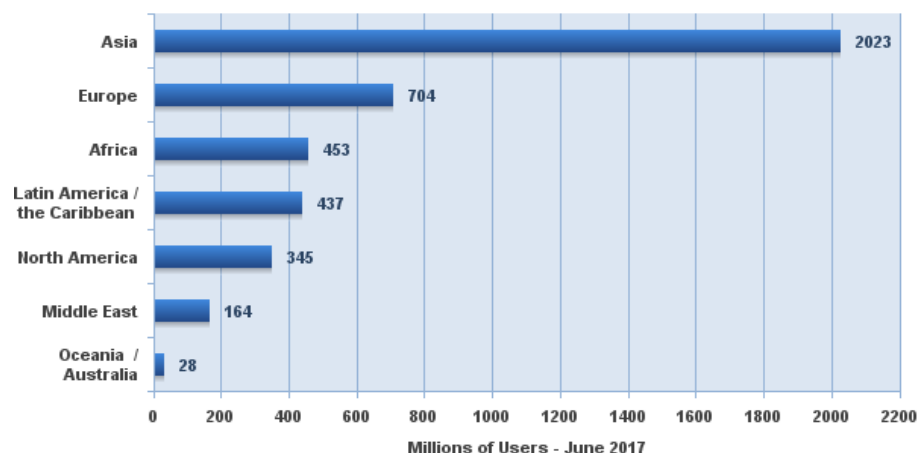
## ANNEX

### Annex I: World Internet usage and population statistics 2017

World Regions	Population (2018 Est.)	Population %	Users 2017	Penetration (% Pop.)	Growth 00'-18'	Users %
Africa	1,287,914,329	16.9 %	412,150,114	32.0 %	9,029.7%	10.2 %
Asia	4,207,588,157	55.1 %	1,992,360,400	47.4 %	1,643.0%	49.2 %
Europe	827,650,849	10.8 %	700,150,752	84.6 %	566.2%	17.3 %
Latin America / Caribbean	652,047,996	8.5 %	424,628,388	65.1 %	2,250.0%	10.5 %
Middle East	254,438,981	3.3 %	147,117,259	57.8 %	4,378.7%	3.6 %
North America	363,844,662	4.8 %	345,660,314	95.0 %	219.8%	8.5 %
Oceania / Australia	41,272,958	0.6 %	28,180,356	68.3 %	269.8%	0.7 %
WORLD TOTAL	7,634,757,932	100.0 %	4,050,247,583	53.1 %	996.1%	100.0 %

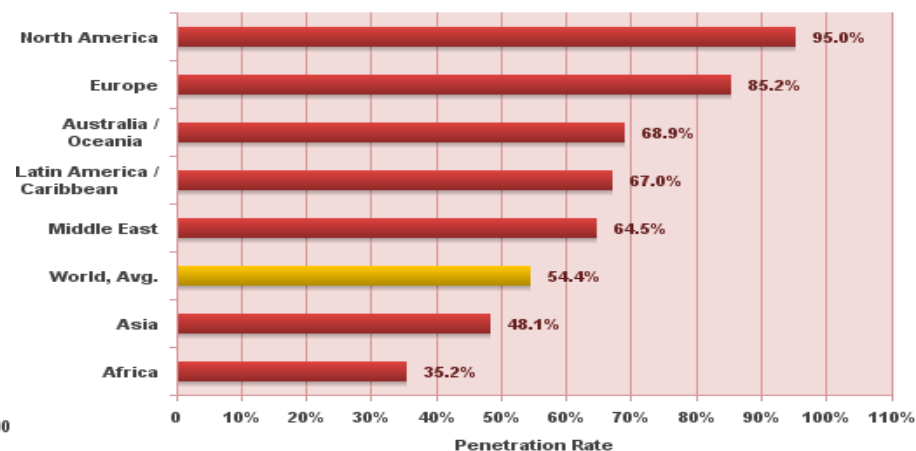
Source: Internet World Stats 2017

**Internet Users in the World  
by Geographic Regions - December 31, 2017**



Source: Internet World Stats - [www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm)  
Basis: 4,156,932,140 Internet users estimated in December 31, 2017  
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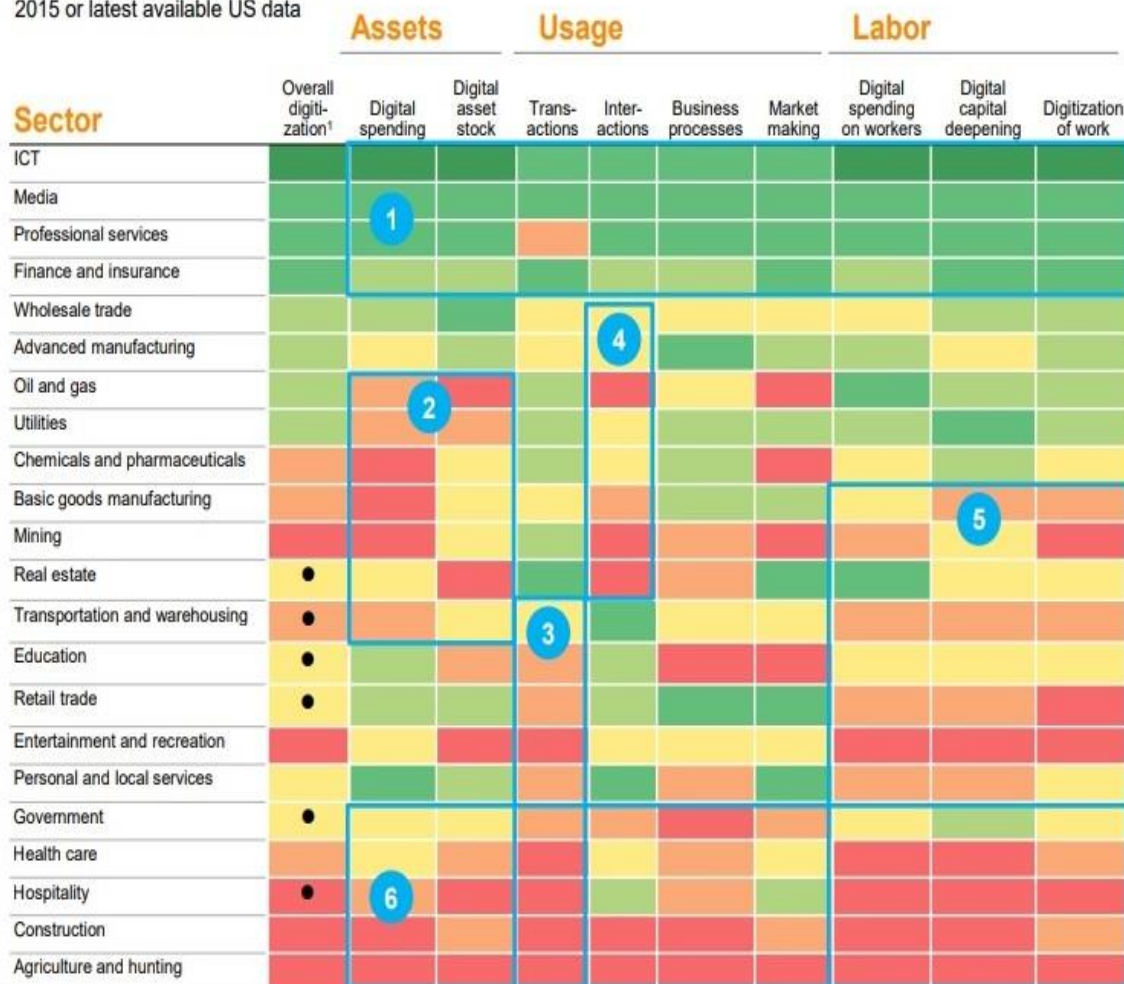
**Internet World Penetration Rates  
by Geographic Regions - December 31, 2017**



Source: Internet World Stats - [www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm)  
Penetration Rates are based on a world population of 7,634,758,428 and 4,156,932,140 estimated Internet users in December 31, 2017.  
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# Extent of Digitization varies by sector

MGI Sector Digitalization Index  
2015 or latest available US data



Relatively low digitization Relatively high digitization

• Digital leaders within relatively un-digitized sectors

- 1 Knowledge-intensive sectors, highly digitized
- 2 Capital-intensive, potential to further digitize their assets
- 3 Service sectors with long tail of small firms having room to digitize customer transactions
- 4 B2B sectors with the potential to digitally engage and interact with their customers and users
- 5 Labor-intensive sectors with the potential to provide digital tools and skills to their workforce
- 6 Large, localized, low productivity could transform for productivity and delivery of services

**Annex III: Studies evidencing the link between ATP and intangible assets**

Author	Place & Time	Variable	Conclusion
Dischinger & Riedel (2011)	EU (1995-2005)	Intangible assets in the balance sheets	- 1 p.p. increase in the average tax difference to all other group affiliates increases the subsidiary's intangible assets in the balance sheet by about 1.7%
Karkinsky & Riedel (2012)	Europe (1978-2007)	Patent holdings	+1 p.p. of CIT rate decreases patent applications by about 3.5%-3.8% (depending on the empirical model)
Griffith et al. (2014)	Europe (1985-2005)	Patent holdings	+1 p.p. of CIT rate decreases patent applications by about 0.5%-3.9% (depending on the location)
Beer and Loeprick (2015)	World (ORBIS) (2003-2011)	Tax sensitivity of reported profits and endowment of intangible assets	Tax sensitivity of reported profits to 1 p.p. increase of the CIT rate increases from 0.76% to 1.2% for subsidiaries with an above median intangible assets endowment.
Böhm et al. (2012)	Europe (1978-2007)	Probability of patent relocation to tax haven and effectiveness of CFC legislation	An increase of 1 standard deviation of patent value increases the probability of patent relocation in a tax haven by about 16%. This probability of patent relocation in a tax haven is reduced by about 1/3 by CFC legislation.
Alstadtsaeter, Barrios, Nicodeme, Skonieczna and Vezzani (2018)	World (2000-2011) top 2,000 corporate R&D investors	Patent holdings	+ 1 p.p. of CIT rate decreases patent applications by about 13.1% (pharmaceutical), 1.5% (ICT sector) and 5.4% (car sector). The presence of patent boxes has a strong and significant effect on patent applications.
Skeie et al. (2016)	World (ORBIS and OECD-PATSTAT) (2004-2010)	Tax sensitivity in patent location	5p.p. of preferential tax rate on patent income is associated with 6% increase in patent applications.
Sorbe and Johansson (2016)	World industry level (world Input-output Database) (1995-2011) and firm level (ORBIS) (2009)	Impact of strong anti-avoidance rules on tax sensitivity of investment	At the 75th percentile of the distribution of industries on profit-shifting incentives, moving from a moderate anti-avoidance strength to a strong stance is associated to about tripling the tax sensitivity of investment.

Source: Table 3 in SWD(2015) 121 final

## Annex IV: Digital Tax Index 2017

It shows the overall results of the last year. In detail, countries are analysed in tax-related factors which include the calculation of the effective average tax rate (EATR) and the Cost of Capital (CoC) of basic types of investments in digital business models. Then, countries are ranked on the EATR by considering the most favourable tax regulations, that is, including special tax regimes for R&D.

- The CoC expresses the return that a marginal investment must generate before tax in order to be worthwhile for an investor. A lower CoC signifies a lower minimum pre-tax yield, and thus a more attractive location for enhancing investment volume.
- The EATR expresses the change in the capital value of a profitable investment caused by the tax burden. A lower EATR indicates that an investment at the relevant location is more worthwhile for investors and the location is thus more attractive for profitable investments.

The following are the main conclusions:

1. Ireland, Italy and Hungary are at the top of the 2017 digital tax index. The negative effective burdens reflect the application of R&D incentives and IP Box regimes, which lead to investments in digital business models being more profitable after tax than before tax.
2. As a traditionally low-tax country, Ireland is highly attractive and, compared to traditional rankings, edges up three places to the very top of the list. Hungary and especially Italy, which traditionally have rather high tax levels, are able to greatly enhance their attractiveness as locations by using tax incentives to steeply reduce the effective burden for digital business models.
3. Germany, the USA and Japan are at the bottom of the list with very high effective burdens of more than 22%. The low level of attractiveness of these locations is due to both high tax rates and either minor tax incentives or a complete lack of special tax regimes.
4. The EATR for digital business models lies between –10% and 25%. On average, digital business models are taxed at 10.20%, which is 11.73% lower than traditional business models. The reason for this is an assumed higher proportion of costs that do not require capitalisation in the investment structure (in particular software developed in-house and intangible assets) as well as more favourable depreciation rules for digital capital goods and the applicability of special tax incentives for research, development and innovation.
5. The front runners in the mid-range are primarily Eastern European countries, due to their low tax rates, and the Scandinavian countries as well as Belgium, Switzerland, Cyprus and Luxembourg. Belgium, Norway and Luxembourg have most greatly enhanced their attractiveness as locations for digital business models through generous R&D incentives and IP Box regimes.
6. The CoC for digital business models falls between –4% and almost 6%. On average, this is 2.95% lower than for traditional business models. The results suggest that in most countries additional investment is worthwhile compared to alternative investments in the capital market (5%).



7. The group leaders, measured in terms of the CoC, are Italy, France and Hungary, each with negative CoC. In Hungary, Belgium, Norway, Portugal, Spain, Malta, Greece and the US, the CoC for digital business models is very low, which implies a higher degree of attractiveness for expanding investment. The low CoC results from generous regulations for determining the tax base, such as granted immediate deductions for investments in acquired hardware and software or R&D incentives which are derived from the tax base.
8. In Germany, both the EATR and the CoC for digital business models are declining. However, when compared with other countries and viewed in terms of the more attractive conditions available there, Germany only ranks 31st out of a total of 33 countries (EATR) and 28th out of 33 (CoC).

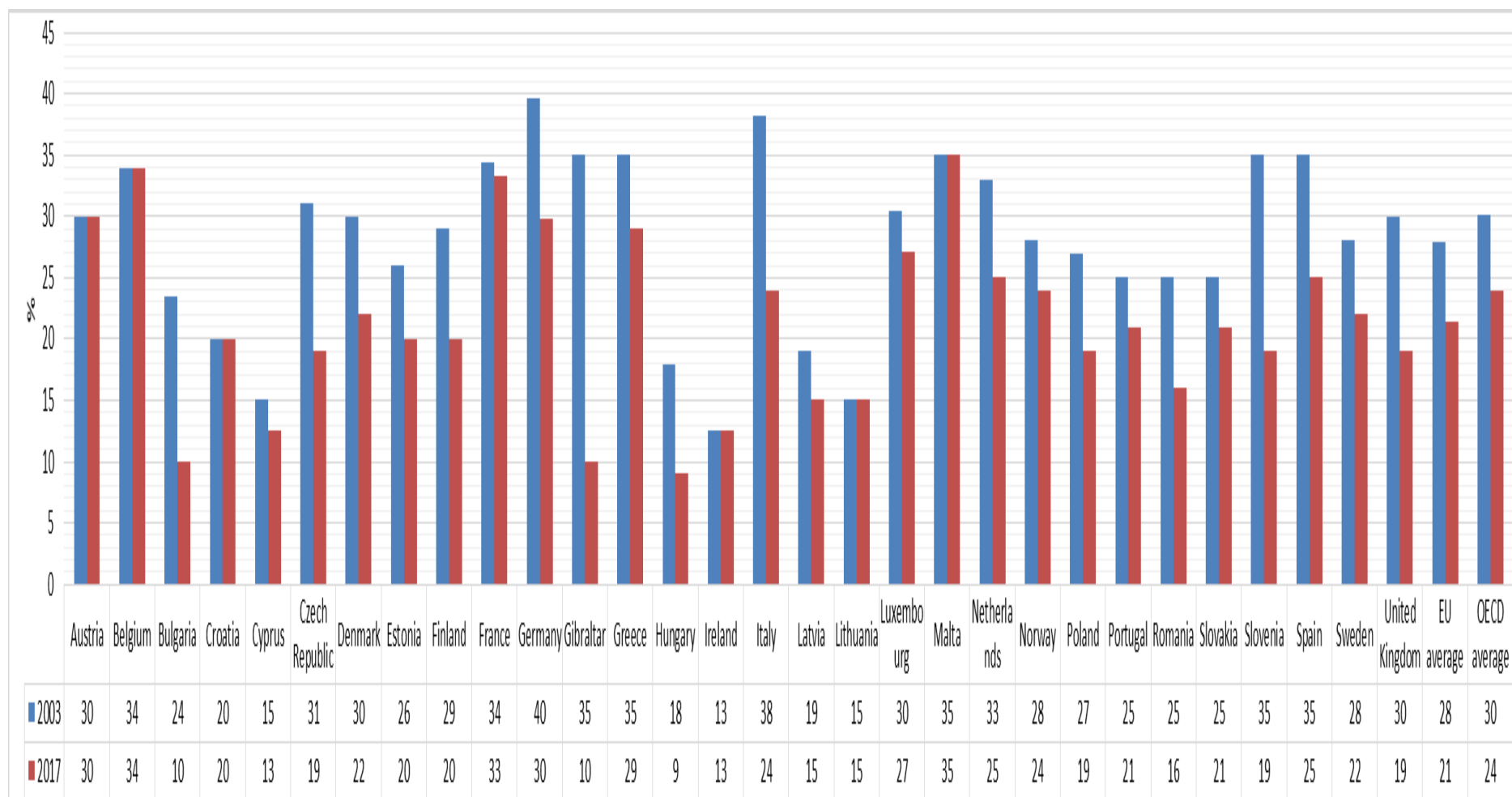
Source: various authors, Digital Tax Index, 2017

Country	EATR				CoC			
	Rank	Ø	Δ Rank	Δ in percentage points	Rank	Ø	Δ Rank	Δ in percentage points
Ireland	1	-10.32%	↗ 3	-24.44	4	0.24%	↗ 6	-5.46
Italy	2	-8.84%	↑ 20	-32.43	1	-4.09%	→ 1	-9.28
Hungary	3	-6.85%	↑ 11	-26.18	3	-0.15%	↑ 16	-6.15
Latvia	4	0.33%	→ 1	-13.94	8	2.25%	↗ 4	-3.46
Lithuania	5	0.44%	↘ -2	-13.18	9	2.27%	↘ -3	-3.29
Belgium	6	2.28%	↑ 22	-26.07	5	1.29%	↑ 11	-4.57
Croatia	7	5.19%	↗ 2	-11.28	12	2.49%	↘ -7	-2.88
Romania	8	6.62%	↘ -2	-8.11	16	3.55%	↘ -8	-2.10
Czech Republic	9	7.48%	→ 1	-9.18	14	3.23%	↘ -7	-2.36
Norway	10	8.02%	↑ 11	-15.27	7	2.22%	↑ 16	-3.99
Switzerland (Zurich)	11	8.39%	→ 1	-10.25	13	3.09%	↘ -2	-2.61
Cyprus	12	8.73%	↘ -10	-4.38	26	4.64%	↘ -23	-0.69
Slovenia	13	9.51%	↘ -6	-5.96	19	4.08%	↘ -10	-1.58
Bulgaria	14	9.52%	↘ -13	0.52	30	5.18%	↘ -26	-0.15
Luxembourg	15	10.76%	↑ 9	-14.76	27	4.82%	↘ -6	-1.20
United Kingdom	16	11.11%	↗ 2	-10.44	22	4.45%	↗ 4	-2.18
Portugal	17	11.63%	↗ 8	-14.99	11	2.47%	↑ 13	-3.80
France	18	12.39%	↑ 15	-25.96	2	-0.72%	↑ 28	-8.14
Poland	19	12.63%	↘ -8	-4.86	23	4.53%	↘ -9	-1.27
Spain	20	12.85%	↑ 9	-17.43	10	2.39%	↑ 22	-5.48
Malta	21	13.12%	↑ 9	-19.12	6	1.45%	↑ 23	-5.39
Netherlands	22	13.61%	↘ -3	-8.93	18	3.84%	↗ 2	-2.17
Denmark	23	14.81%	↘ -6	-5.23	24	4.58%	↘ -7	-1.33
Slovakia	24	15.09%	↘ -8	-4.48	25	4.62%	↘ -12	-1.16
Austria	25	15.16%	↘ -5	-7.93	20	4.14%	↗ 2	-2.02
Finland	26	15.86%	↘ -13	-3.04	29	5.18%	↘ -11	-0.80
Canada (Ontario)	27	16.05%	↘ -4	-9.07	21	4.29%	↗ 7	-2.35
Estonia	28	16.27%	↘ -20	0.57	32	5.27%	↘ -31	0.10
Greece	29	16.73%	↘ -3	-10.84	17	3.76%	↑ 10	-2.88
Sweden	30	16.93%	↘ -15	-2.50	31	5.22%	↘ -16	-0.63
Germany	31	22.81%	↘ -4	-5.41	28	5.13%	↘ -3	-1.32
USA (California)	32	22.82%	→ 0	-13.70	15	3.32%	↑ 16	-4.30
Japan	33	25.46%	↘ -2	-8.79	33	5.76%	→ 0	-2.34
Average		10.20%		-11.73		3.18%		-2.95

Germany is ranked 31<sup>st</sup> based on to its EATR. In comparison to traditional business models Germany even loses 4 places. In other words: The EATR for digital business models is 5.41 percentage points lower than for traditional ones. Regarding capital costs Germany ranks 28<sup>th</sup> with a CoC of 5.13%. This means Germany ranks three positions worse compared to the CoC of traditional business models.

Source: PwC, the University of Mannheim and the Centre for European Economic Research (ZEW)

## Annex V: Corporate income tax nominal rate comparison between 2003 vs. 2017



Source: own creation based OECD Database 2017

## Annex VI: Description of Aggressive Tax Planning structures by the EC

This section contains a description of the seven model ATP structures from which the ATP indicators are derived.

### Structure 1 - Offshore loan ATP structure

This ATP structure is a simple one that is designed to illustrate some basic ATP indicators. As the structure is rather illustrative and generic, the authors have found no direct reference in the literature; however, it exemplifies a simple structure falling under the debt-shifting ATP channel.

The ATP structure relies on the payment of tax-deductible interest to a tax-exempt company resident outside the EU. There is no hybrid mismatch in qualification, whether of a financing instrument or of an entity. The ATP element of the structure is derived from the tax exemption of an offshore entity that is included in the structure, in combination with the tax treatment of interest in the MS of the intermediate holding company. Hence this ATP structure takes advantage of situations where interest can be fully deducted in one MS whereas only a small interest spread is being taxed in the other MS, because this other MS does not impose withholding tax on the interest paid to the offshore (low-taxed) entity.

#### Introduction

The ATP structure is established in connection with a multinational group's acquisition of an operating company in MS C. However, it is worth observing that in many situations, it could also have been established in an existing MNE group outside the context of an acquisition.

The structure is intended to obtain tax relief for *internal (artificially created) financing costs* which do not reflect any external financing costs for the MNE group. This is achieved by contributing capital into a tax-exempt offshore company which in turn on-lends the funds as interest-bearing loans to other member companies of the group.

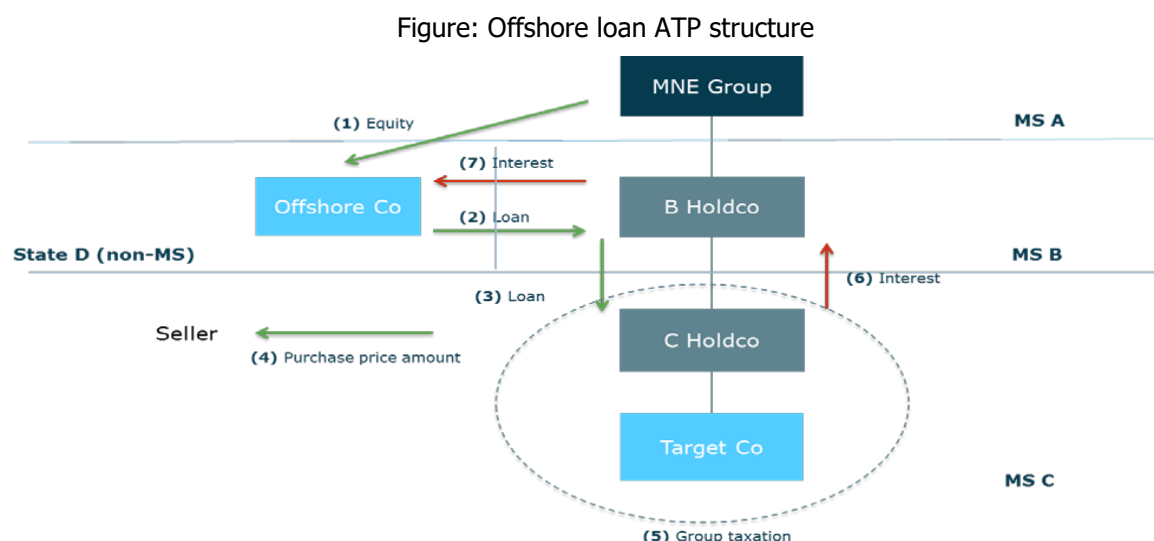
#### The mechanisms of the structure

The ATP structure is established by means of the following transactions:

1. The MNE group, a multinational parent company headquartered in MS A, sets up a tax-free company, Offshore Co, in State D, which is a non-MS, and contributes a large amount of share capital. In addition, the MNE group sets up B Holdco in MS B with a minimum share capital.
2. B Holdco takes out an interest-bearing loan from Offshore Co.
3. C Holdco is established in MS C as a wholly-owned subsidiary of B Holdco with a minimum share capital. C Holdco takes out an interest-bearing loan from B Holdco.
4. C Holdco enters into a share purchase agreement with the sellers of the shares in Target Co, and uses the funds borrowed to pay the purchase price.
5. Since C Holdco is purely a holding company with no income-generating activities of its own, the utilization of its tax deductions for interest on the loan has to be achieved by means of a local tax grouping (consolidation) with Target Co<sup>43</sup>. Target Co is assumed to have sufficient taxable profits to shelter the interest deductions of C Holdco.



6. Interest on the loan from B Holdco is paid or accrued, and C Holdco claims a local tax deduction in MS C for the interest. The interest is included in B Holdco's taxable income in MS B. It is assumed that MS C does not levy any withholding tax on the payment of interest<sup>44</sup>.
7. B Holdco pays interest on the loan from Offshore Co, and claims a deduction against its taxable income in MS B. The deduction leaves no or only a small taxable income in MS B. It is assumed that MS B does not levy any withholding tax on interest.



### Discussion of the ATP indicators

Below, we highlight the factors and characteristics which can either facilitate or restrict ATP in the structure set out above. The discussion follows the order of the transactional steps.

#### Step 1

The MNE group's equity investment in Offshore Co would typically not trigger any direct tax consequences in either MS A or State D.

#### Step 2

The granting of an interest-bearing loan from Offshore Co to B Holdco would normally not directly trigger any tax consequences in MS B or in state D. The tax consequences with respect to the interest are discussed below under Step 7.

#### Step 3

The granting of an interest-bearing loan from B Holdco to C Holdco would normally not trigger any tax consequences in MS B or in MS C. The tax consequences with respect to the interest are discussed below under Step 6.

#### Step 4

The sale of shares by the Seller would, as a main rule, be tax-exempt in many MSs, assuming that the Seller has been the sole shareholder prior to the sale. The actual receipt of cash payment by the Seller

should not trigger any tax consequences. The acquisition of the shares by C Holdco would, as a main rule, not trigger any tax consequences in MS C.

#### Step 5

To ensure the overall economic benefit of the leveraged acquisition ATP technique, C Holdco should be able to offset the deductible interest payments against taxable income. Being a holding company, C Holdco is unlikely to generate taxable income on a stand-alone basis. Therefore, the economic benefit is typically ensured by the application of domestic group taxation regimes (also referred to as fiscal unity, tax grouping, group tax relief or joint taxation) through which the interest payments in C Holdco can be offset against the taxable operating profits of Target Co.

#### Step 6

A critical aspect of the structure is the fact that MS C allows C Holdco a tax deduction for the interest on the loan from B Holdco. Such tax deduction can be restricted under various forms of local thin-capitalization rules or interest-limitation rules in MS C.

It is also a critical aspect of the structure that MS C does not levy any withholding tax on the interest. The simplest situation would be if the domestic law of MS C does not provide for any withholding tax. A more complex situation would arise if MS C does levy a withholding tax; such a tax would then have to be suspended either under the EU Interest/Royalty Directive or a tax treaty between MS B and MS C. However, in the latter case, it remains to be tested whether B Holdco would qualify as the beneficial owner of the interest. Given the back-to-back character of the loans going through B Holdco, in practice B Holdco would be unlikely to qualify as the beneficial owner of the interest from C Holdco.

Finally, it is assumed that the interest is included in B Holdco's taxable income in MS B.

#### Step 7

It is a critical assumption that MS B allows B Holdco a tax deduction for the interest on the loan from Offshore Co and does not impose any withholding tax, regardless of the offshore location of the creditor. Typically, B Holdco would have obtained a binding ruling from the tax authorities in MS B to that effect; also agreeing with the authorities what interest spread should be left for taxation in MS B.

#### Other comments

It should be noted that the ATP structure set out above assumes that MS A does not apply any CFC rules to the structure. Generally, if CFC rules exist in MS A, they would normally prevent the ATP structure, since the MNE group would be required to include in its own taxable income in MS A the interest received on the loan by Offshore Co.

The ATP structure could also be applied if the MNE group's parent company is resident outside the EU.

#### Extraction of the ATP indicators

The table below extracts from the discussion above the ATP indicators relating to the ATP structure. For the purpose of creating an overview of the listed indicators, it is helpful to distinguish between State A, State B, State C and State D, as the rules depend on the character of the income or cost involved in each tier of the structure.

Table: Indicators resulting from Structure 1

State A	State B	State C	State D
-Too generous tax-exemption of dividends received.	-Tax deduction for interest costs.  -Tax deduction does not depend on the tax treatment in the creditor's state.	-Tax deduction for interest costs.  -Tax deduction does not depend on the tax treatment in the creditor's state.	-No withholding tax on dividends paid.  -Nil corporate tax rate.
-No CFC Rules.	-No interest-limitation rules and no thin-capitalization rules.  -No withholding tax on interest payments.  -No beneficial-owner test for reduction of withholding tax.  -Unilateral ruling on interest spread.  -No general or specific anti-avoidance rules to counter the model ATP structures.	-No interest-limitation rules and no thin-capitalization rules  -No withholding tax on interest payments.  -No beneficial-owner test for reduction of withholding tax.  -Group taxation with acquisition holding company allowed.  -No general or specific anti-avoidance rules to counter the model ATP structures.	

## Structure 2 - Hybrid loan ATP structure

This ATP structure is a variation of an example presented in the OECD BEPS reports<sup>45</sup>. The publicly available literature identified that addresses this structure includes "Neutralising the Effects of Hybrid Mismatch Arrangements", pp. 33-34 (OECD, Action 2: 2014 Deliverable). This structure describes a debt-shifting ATP channel.

The ATP structure takes into account the revision of the Parent/Subsidiary Directive.<sup>46</sup> This ATP structure takes advantage of the hybrid mismatch in the qualification of a financing instrument. Accordingly, the ATP structure benefits from a deduction of the payment in one MS (e.g. as interest) in combination with no inclusion in the other MS.

### Introduction

The ATP structure is established in connection with a multinational group's acquisition of an operating company in MS C, but it is worth observing that in many situations, it could also have been established in an existing MNE group outside the context of an acquisition.

The structure assumes that the MNE group, a multinational parent company headquartered in MS A, has agreed to acquire a profitable operating company, Target Co, resident in MS C. The purchase price is EUR 1,000 million. EUR 400 million is funded by means of funds that the MNE group already has

available to it, whereas the remaining EUR 600 million has to be borrowed from an external bank on normal market terms. The structure has two tax objectives<sup>47</sup>:

Firstly, it aims to obtain tax relief in MS C for the external financing costs of the acquisition. This objective should not in itself generally be considered aggressive, as it normally just seeks to align the location of the tax deduction for the external financing costs with the location of the taxation of the profits of the acquired company. Therefore, it does not lead to any undue tax benefit for the MNE group<sup>48</sup>.

Secondly, the structure aims to obtain additional tax relief for *internal (artificially created) financing costs* which do not reflect any external financing costs of the MNE group. This is achieved by means of a hybrid loan that produces an additional tax deduction for interest in the hands of the borrower company in MS C, but triggers no taxation of the corresponding income in the hands of any other member company of the MNE group (nor by any external lender). Clearly, given the exploitation of a mismatch in tax treatment as well as the artificial nature of the hybrid loan, this is the element that makes it an ATP structure.

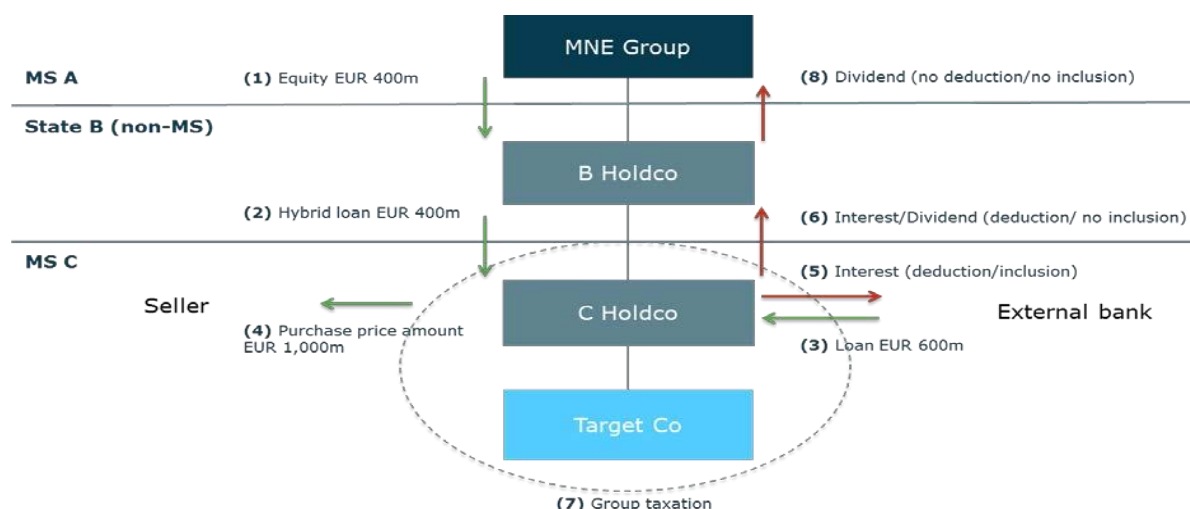
#### The mechanisms of the structure

The ATP structure is established by means of the following transactions:

1. A holding company, B Holdco, is established in State B – a state outside of the EU – as a wholly-owned subsidiary of the MNE group. The MNE group subscribes to a share capital in B Holdco of EUR 400 million.
2. A holding company, C Holdco, is established in MS C as a wholly-owned subsidiary of B Holdco. B Holdco subscribes only to a nominal (minimal) share capital in C Holdco. In addition, C Holdco takes out a loan from B Holdco in the amount of EUR 400 million. The loan is structured on such hybrid terms and conditions<sup>49</sup> that for local tax purposes, State B qualifies the loan as an investment in shares whereas MS C qualifies it as debt. As a result, MS C allows a tax deduction for the interest accrued (or paid); whereas State B does not tax the interest received but instead treats it as a tax-exempt dividend from a shareholding.
3. C Holdco takes out an interest-bearing loan from an external bank in the amount of EUR 600 million. The loan is obtained on normal market terms and conditions, backed by a guarantee issued by the MNE group. C Holdco pays a guarantee fee to MNE Group.
4. C Holdco enters into a share purchase agreement with the sellers of the shares in Target Co and pays the purchase price of EUR 1,000 million.
5. Interest on the bank loan is accrued and paid. C Holdco claims a tax deduction in MS C for the interest accrued/paid. (The external bank is taxed on the interest income under the normal tax rules of its home Member State<sup>50</sup>.) Also, C Holdco claims a tax deduction for the guarantee fee paid to MNE Group.
6. Interest on the hybrid loan from B Holdco is accrued, and C Holdco claims a local tax deduction in MS C for the interest as it accrues. B Holdco is not taxed on the interest income either in State B or in MS C.<sup>51</sup>
7. Since C Holdco is a pure holding company with no income-generating activities of its own, the utilization of its tax deductions pertaining to the interest on the bank loan and the hybrid loan has to be achieved by means of a local tax grouping (consolidation) with Target Co<sup>52</sup>. Target Co is assumed to have sufficient taxable profits to shelter the interest deductions of C Holdco.
8. To the extent that C Holdco makes actual payment of the interest accruing to B Holdco on the hybrid loan, B Holdco would generate cash that could be used to pay a dividend to MNE Group. Such a dividend would not be taxable in the hands of MNE Group under MS A's tax rules, nor would

it be tax-deductible to B Holdco under State B's tax rules. Moreover, it is assumed that State B does not levy any withholding tax on the dividend.

Figure: Hybrid loan ATP structure



#### Discussion of the ATP indicators

Below, we highlight the factors and characteristics which can either facilitate or restrict ATP in the structure set out above. The discussion follows the order of the transactional steps.

##### Step 1

MNE Group's equity investment in B Holdco would typically not trigger any direct tax consequences in either MS A or State B. However, there can be an indirect tax consequence to MS A in that the funds might have generated taxable interest or similar return on investment before they were transferred to B Holdco. After their transfer to B Holdco, the investment return would normally only come back to MS A in the form of a tax-exempt dividend. The tax consequences of dividend payments are discussed in further detail below under Step 8<sup>53</sup>.

##### Step 2

The subsequent use of the proceeds from the capital increase as a hybrid loan from B Holdco to C Holdco would normally not directly trigger any tax consequences in State B or MS C upon issuance of the hybrid instrument. The tax consequences with respect to the yield are discussed below under Step 6.

##### Step 3

The loan obtained by C Holdco from a third-party bank would typically not directly trigger any tax consequences in MS C upon issuance.

##### Step 4

The sale of shares by Seller would, as a main rule, be tax-exempt in many MS, assuming that the Seller has been the sole shareholder prior to the sale. The actual receipt of cash payment by the Seller should not trigger any tax consequences. The acquisition of the shares by C Holdco would, as a main rule, not trigger any tax consequences in MS C.

#### Step 5

The yields on the third-party bank loan, in the form of interest payments, can be assumed to be deductible for tax purposes in most (if not all) MSs. This is a crucial feature in the overall tax benefits of leveraged acquisitions. A number of MSs have introduced tax rules to restrict interest deductions. Some of these rules apply only to interest on inter-company loans, but that can include external loans guaranteed by other member companies of the group. Other rules (e.g. EBITA and EBIT rules) apply to the interest on all loans, including third-party debt.

#### Step 6

In the ATP structure set out above, the yield on the hybrid loan instrument would take the form of tax-deductible interest in the hands of C Holdco in MS C and tax-exempt dividends in State B in the hands of B Holdco. Such a mismatch can arise because the classification of hybrid instruments largely depends on domestic case law in each state. For example, a mismatch of tax qualification can arise if MS C treats the instrument in accordance with its legal form and maintains the debt classification, while State B views the instrument in accordance with its economic substance and classifies it as equity. Accordingly, in State B the yield constitutes dividend, which falls under the scope of State B's domestic-law participation exemption regime, i.e. it is tax-exempt. As another example, the same result could be obtained via hybrid equity where State B maintains the legal form as equity (certain variations of preference shares) while MS C classifies the instrument in accordance with its economic substance as debt, and accordingly treats the yield as deductible interest payments.

In this ATP structure, it is assumed that State B is not an MS and therefore is not affected by the change of the Parent/Subsidiary Directive<sup>54</sup>.

If B Holdco is the beneficial owner of the yield of the hybrid instrument, the payment of the interest from C Holdco to B Holdco would normally not trigger any withholding tax on the interest in MS C. This could follow either from an applicable double tax treaty between State B and MS C, or from the fact that MS C does not levy any interest withholding tax under its domestic law.

#### Step 7

To ensure the overall economic benefit of the leveraged acquisition ATP technique, C Holdco should be able to offset the deductible interest payments. Being a holding company, C Holdco is unlikely to generate taxable income on a stand-alone basis. Therefore, the economic benefit is typically ensured by the application of domestic group taxation regimes (also referred to as fiscal unity, tax grouping, group tax relief or joint taxation) through which the interest payments in C Holdco can be offset against the taxable operating profit of Target Co.

#### Step 8

A dividend payment to the MNE group would normally not trigger any tax consequences in MS A due to the existence of participation exemption type legislation, which would effectively exempt the income from taxation. If a double tax treaty (based on the OECD Model Tax Convention) is in place between MS A and State B, Article 10 of the double tax treaty would normally result in 0% or 5% withholding tax in State B.

#### Absence of CFC taxation

Finally, it should be noted that the ATP structure set out above assumes that MS A does not apply any CFC rules to the structure. Generally, if CFC rules exist in MS A, they would normally prevent the ATP

structure since MNE Group would be required to include in its own taxable income in MS A the interest (treated as dividend in State B) received by B Holdco on the hybrid loan<sup>55</sup>.

#### Extraction of the ATP indicators

The table below extracts from the discussion above the ATP indicators relating to the ATP structure. For the purpose of creating an overview of the listed indicators, it is helpful to distinguish between State A, State B and State C, as the rules depend on the character of the income or the cost involved in each tier of the structure.

Table: Indicators resulting from Structure 2

State A	State B	State C
-Too generous tax-exemption of dividends received.	-No withholding tax on dividends paid.	-Tax deduction for interest costs.
-No CFC rules.	-Income from certain hybrid instruments can be treated as tax-free dividend or similar.	-Tax deduction does not depend on the tax treatment in the creditor's state.
	-Too generous tax-exemption of dividends received, regardless of deduction by the distributing company (hybrid loan).	-No interest-limitation rules and no thin-capitalization rules.
		-No withholding tax on interest payments.
		-No beneficial-owner test for reduction of withholding tax.
		-Group taxation with acquisition holding company allowed.
	- No general or specific anti-avoidance rules to counter the model ATP structures	-No general or specific anti-avoidance rules to counter the model ATP structures.

#### **Structure 3 - Hybrid entity ATP structure**

This structure is a variation of the OECD example referred to in paragraph 72 of "Neutralising the Effects of Hybrid Mismatch Arrangements: Action 2: 2014 Deliverable". The structure falls into the debt category.

The ATP structure relies on allocating interest costs to a company which is considered a taxable entity in the state of incorporation, and which at the same time is considered a transparent entity for tax purposes in the state of the participants. Such a mismatch in tax subjectivity is often referred to as a hybrid entity (or rather, in the case at hand it is a *reverse* hybrid). Therefore this ATP structure takes advantage of the hybrid mismatch in the qualification of an entity, which results in a tax deduction for interest in one MS without any inclusion of the payment in the other MS.

#### - Introduction

The ATP structure is established in connection with a multinational group's acquisition of an operating company in MS B, but it is worth observing that in many situations, it could also have been established in an existing MNE group outside the context of an acquisition. The structure assumes that MNE Group, a multinational parent company headquartered in State A (MS or non-MS), has agreed to acquire a profitable operating company, Target Co, resident in MS B.

The structure aims to obtain tax relief for *internal (artificially created) financing costs* which do not reflect any external financing costs of the MNE group. This is achieved by means of a hybrid entity in MS B that takes out a loan from the MNE Group in state A. This produces a tax deduction for interest in the hands of the borrower company in MS B without any taxation of the corresponding income in the hands of the MNE group in State A.

This ATP structure can either be a result of: (1) different classification of partnerships for tax purposes in the states involved, or (2) check-the-box rules or similar legislation.

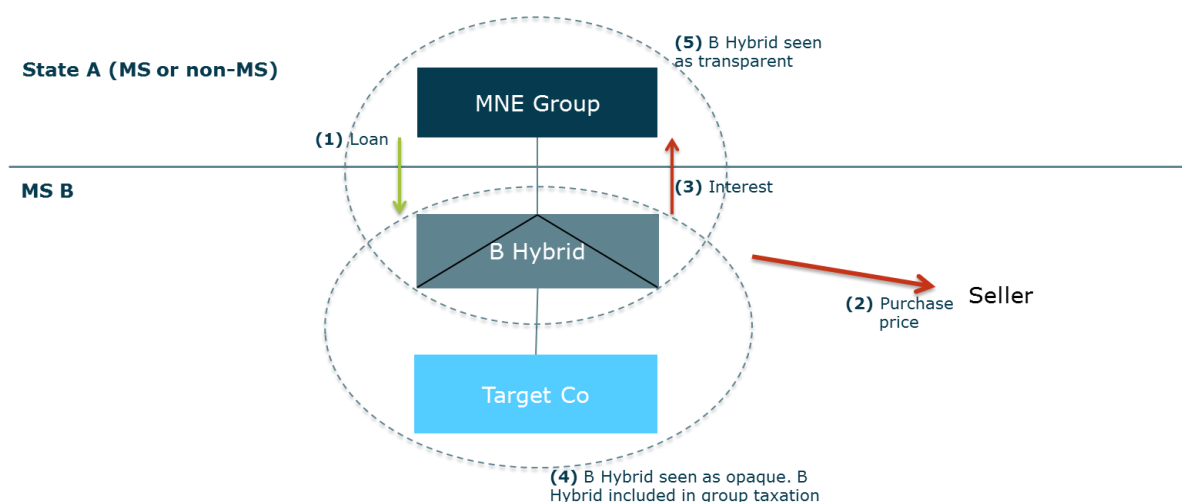
As none of the EU MSs currently have legislation similar to the US check-the-box rules, State A cannot be an EU MS in the second scenario. Thus, State A is considered to be an MS in Scenario 1 and non-MS in Scenario 2.

#### - The mechanisms of the structure

The ATP structure is established by means of the following transactions:

1. MNE Group establishes a legal entity, B Hybrid, in MS B. B Hybrid takes out an interest-bearing loan from MNE Group.
2. B Hybrid uses the funds borrowed to pay the purchase price for the shares in Target Co and acquires 100% of the shares.
3. In its state of incorporation, MS B, B Hybrid is treated as a taxable entity. B Hybrid claims a local tax deduction in MS B for the interest as it accrues<sup>56</sup>.
4. Since B Hybrid has no income-generating activities itself, the utilization of its tax deductions for interest on the loan has to be achieved by means of a local tax grouping (consolidation) with Target Co. Target Co is assumed to have sufficient taxable profits to shelter the interest deductions of B Hybrid.
5. In the State of its owner, State A, B Hybrid is seen as a transparent entity and is therefore regarded as an integral part of MNE Group. Consequently, the interest income from B Hybrid is seen as stemming from the taxpayer itself and hence is ignored for State A's tax purposes.<sup>57</sup>

Figure: Hybrid entity ATP structure



#### Discussion of the ATP indicators

Below we highlight the factors and characteristics which can either facilitate or restrict ATP in the structure set out above. The discussion follows the order of the transactional steps.



#### Step 1

In many cases, B Hybrid would be a limited partnership. This would normally require more than one owner, including a limited partner. In such cases, it is assumed that MNE Group would hold the largest possible degree of ownership/profit participation rights in C Hybrid. The granting of the loan by MNE Group to B Hybrid has no tax implications in itself.

#### Step 2

Payment of the consideration for the shares in Target Co has no tax implications in itself.

#### Step 3

Interest payments should be deductible for tax purposes in most MSs. This is a crucial feature in the overall tax benefits of leveraged acquisitions. Many MSs have introduced tax rules to restrict interest deductions in cases of so-called thin capitalization. Some of these rules apply only to interest on inter-company loans; other rules (e.g. EBITA and EBIT rules) apply to interest on all loans, including third-party debt. While such restrictions would have to be observed by the MNE group, they might not necessarily work to disallow all interest deductions.

#### Step 4

Subject to thin-capitalization restrictions, if any, B Hybrid claims a tax deduction in MS B for the interest cost on the loan from MNE Group.

The interest deduction is passed on to Target Co by means of domestic group taxation in MS C (also referred to as fiscal unity, tax grouping, group tax relief or joint taxation). This is a critical factor for the tax benefit of the structure.

It is critical that MS B does not levy any withholding tax on the interest paid to MNE Group in state A. Such exemption from withholding tax might follow either from domestic law, a tax treaty between State A and MS B, or the EU Interest/Royalty Directive.

#### Step 5

Most MSs apply their own tax qualification of foreign companies and partnerships when determining whether a resident owner (partner) should include the income and cost items of the foreign entity in the taxpayer's local tax return. Typically, such qualification would be based on the same criteria that are applied to domestic entities established/incorporated in that MS. Such qualification is rarely linked to that of the other MSs. Therefore, the qualification of a foreign entity in the owner's MS can differ from that of the entity's MS (state of residence/incorporation).

In the case at hand, it is assumed that State A qualifies B Hybrid as a partnership and hence as a tax-transparent entity. In general, this would normally imply that the owner, MNE Group, would have to include in its own taxable income the income and cost items of B Hybrid. However, most MSs would probably ignore the interest cost and income from the loan between MNE Group and B Hybrid. Either way, in effect there would be no taxation in State A of the interest received from the loan.

#### - Extraction of the ATP indicators

The table below extracts from the discussion above the ATP indicators relating to the ATP structure. For the purpose of creating an overview of the listed indicators, it is helpful to distinguish between State A and State B, as the rules depend on the character of the income or cost involved in each tier of the structure.

Table: Indicators resulting from Structure 3

State A	State B
-No general or specific anti-avoidance rules to counter the model ATP structures.	-Tax deduction for interest costs.
-Tax qualification of the foreign entity does not follow that of the foreign	-Tax deduction does not depend on the tax treatment in the creditor's state.
	-No interest-limitation rules and no thin-capitalization rules.
	-No withholding tax on interest payments.
	-Group taxation with acquisition holding company allowed.
	-No rule to counter a qualification mismatch of a local company.

#### Structure 4 – Interest-free-loan ATP structure

This ATP structure takes advantage of the fact that certain MSs do not adjust the taxable income of a company that grants an interest-free loan to a related company in another MS, while at the same time that other MS allows the borrowing company a tax deduction for a deemed interest cost.

Economically, the structure falls both into the debt category and the transfer pricing category.

##### Introduction

The ATP structure is established in connection with an operating subsidiary's need for funding. Normally, it is not crucial to the structure whether the need for funding arises in connection with an acquisition or simply for general operational investment purposes.

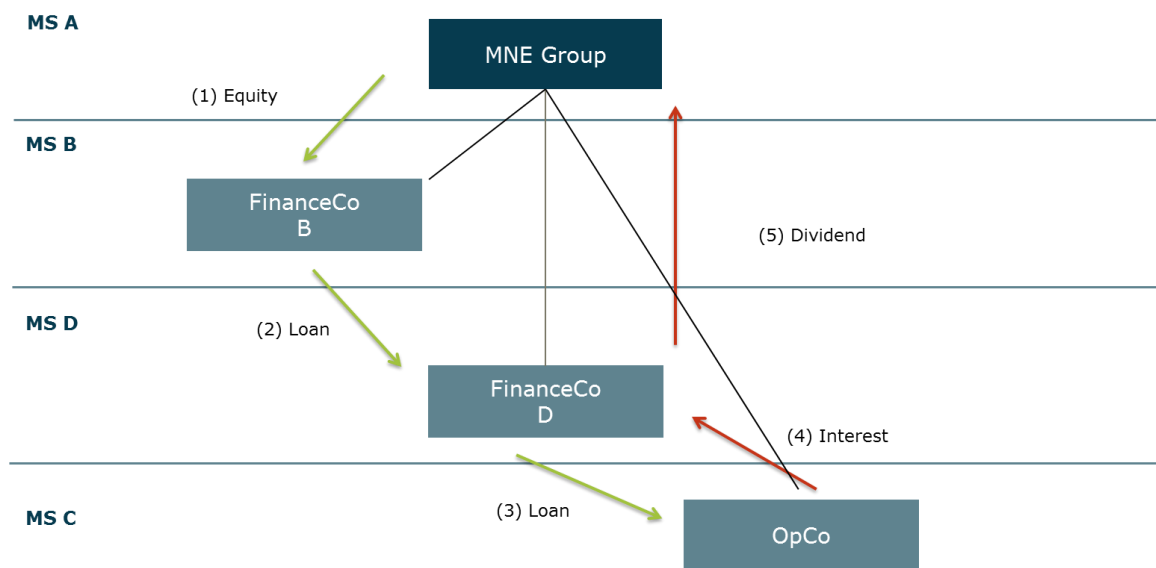
The structure aims to obtain tax relief for *internal (artificially created) financing costs* which do not reflect any external financing costs of the MNE group. This is achieved by means of an interest-free loan which gives rise to a tax deduction for deemed interest on the one hand, but no income pick-up on the other hand.

The mechanisms of the structure

The ATP structure is established by means of the following transactions:

1. FinanceCo B is established in MS B as a wholly-owned subsidiary of MNE Group and capitalized with 100% equity capital.
2. FinanceCo D is established in MS D as a wholly-owned subsidiary of MNE Group. FinanceCo D takes out a loan from FinanceCo B. The loan is free from interest. Nonetheless, because of transfer pricing rules in MS D, FinanceCo D can claim a tax deduction for the hypothetical (deemed) interest that it should have paid had the interest-rate terms of the loan been on an arm's-length basis. By contrast, MS B does not make any corresponding adjustment of FinanceCo B's taxable income in MS B. This can be because of the absence of transfer pricing regulations or for other reasons.
3. FinanceCo D on-lends the loan to an existing member company of the group, OpCo, in MS C. The loan is interest-bearing and on arm's-length conditions.
4. OpCo pays interest to FinanceCo D and claims a local tax deduction in MS C for the interest – either as it accrues or as it is paid<sup>58</sup>. FinanceCo D in turn includes the interest in its taxable income in MS D, but the income is wholly or partly offset by the deemed interest deduction under paragraph 2 above.
5. FinanceCo D uses the funds received as interest from OpCo to pay a dividend to MNE Group.

Figure: Interest-free-loan ATP structure



#### Discussion of the ATP indicators

Below, we highlight the factors and characteristics which can either facilitate or restrict ATP in the structure set out above. The discussion follows the order of the transactional steps.

##### Step 1

The capital contribution from MNE Group to FinanceCo B should have no tax implications in itself.

##### Step 2

It is critical to the structure that MS D allows a tax deduction for deemed interest which is neither contractually provided for nor paid between the parties<sup>59</sup>. Further, it is critical that the non-payment of interest is not considered a taxable contribution from FinanceCo B to FinanceCo D.

It is also critical that deducted non-paid interest is not picked up as taxable income in MS B. Finally, it is critical that FinanceCo B would not fall under any CFC rules of MS A. Failing to satisfy these conditions might render FinanceCo B taxable on a deemed interest income in another MS.

##### Step 3

The granting of the loan from FinanceCo D to OpCo should have no tax implications in itself.

##### Step 4

Interest payments should be deductible for tax purposes in most MSs. This is a crucial feature in the overall tax benefits of leveraged acquisitions. Many MSs have introduced tax rules to restrict interest deductions in cases of so-called thin capitalization. Some of these rules apply only to interest on inter-company loans; other rules (e.g. EBITA and EBIT rules) apply to interest on all loans, including third-party debt. While such restrictions would have to be observed by the MNE group, they might not necessarily work to disallow all interest deduction.

It is critical that MS C does not levy any withholding tax on the interest paid to FinanceCo D in MS D. Such exemption from withholding tax might follow either from domestic law, a tax treaty between MS D and MS C, or the EU Interest/Royalty Directive. Thus, it might be a requirement that FinanceCo D is considered the beneficial owner of the interest payment made by OpCo.

## Step 5

A dividend payment to the MNE group would normally not trigger any tax consequences in MS A, due to the existence of participation exemption which should effectively exempt the income from taxation. Also, no withholding tax should be incurred in MS D, either as a result of a tax treaty between MS A and MS D or the EU Parent/Subsidiary Directive as implemented in domestic law.

### Extraction of the ATP indicators

The table below extracts from the discussion above the ATP indicators relating to the structure. For this purpose, it is helpful to distinguish between State A, State B, State C and State D, as the rules depend on the character of the income or cost involved in each tier of the structure.

Table: Indicators resulting from Structure 4

State A	State B	State D	State C
-Too generous tax-exemption of dividends received.	-No deemed income from interest-free loan (non-arm's-length transactions).	-No withholding tax on dividends paid. -Tax deduction for interest costs. -Interest deduction allowed for deemed interest costs on interest-free debt. -No taxation of benefit from interest-free debt. -No interest-limitation rules and no thin-capitalization rules -No general or specific anti-avoidance rules to counter the model ATP structures.	-Tax deduction for interest costs. -No interest-limitation rules and no thin-capitalization rules. -No withholding tax on interest payments. -No beneficial-owner test for reduction of withholding tax on interest. -No general or specific anti-avoidance rules to counter the model ATP structures.
-No CFC rules.			

### **Structure 5 - Patent box ATP structure**

The ATP structure is established in connection with a multinational group's global operations using IP rights under an IP/patent box regime. This ATP structure benefits from the favourable tax treatment of IP income corresponding to a patent box or other specific tax regime in one MS, while at the same time the other MS allows a deduction of royalty payments and does not levy any withholding tax on the outbound royalty payment.

As the structure is rather illustrative and generic, the authors have found no direct reference in the literature. This structure exemplifies the IP ATP channel.

### Introduction

The structure assumes that MNE Group, a multinational company headquartered in MS A, owns IP rights and plans to develop new IP rights. For the purpose of minimizing the taxation of its global IP income, IP is transferred to a subsidiary resident in an MS that offers preferential tax treatment of IP income according to an IP/patent-box regime.

### The mechanisms of the structure

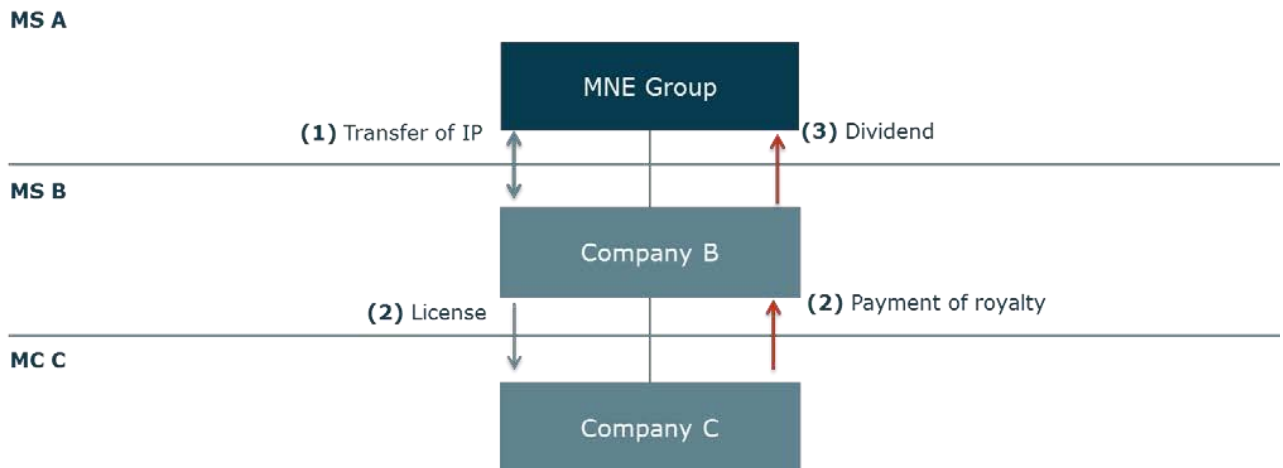
The ATP structure is established by means of the following transactions and actions:

1. MNE Group establishes Company B as a wholly-owned subsidiary based in MS B and transfers all its existing IP rights to Company B. Furthermore, it is agreed that all future research and

development activities for the MNE group is to be carried out and owned by Company B. The transfer of the existing IP rights takes place either directly as a sale (contribution at fair market value) or pursuant to a cost-sharing agreement (on an arm's-length basis).

2. Company B licenses IP rights to Company C, an operating group company resident in MS C. Accordingly, Company C pays royalties to Company B and claims a tax deduction for the licence pertaining to the MNE Group's IP rights. Because of the IP/patent-box regime in State B, the royalty income received by Company B is subject to preferential tax treatment.
3. Profits of Company B are distributed as dividends to MNE Group.

Figure 2.5: Patent box ATP structure



#### Discussion of the ATP indicators

Below, we highlight the factors and characteristics which can either facilitate or restrict ATP in the structure set out above. The discussion follows the order of the transactional steps.

##### Step 1

The establishment of Company B would typically not trigger any direct tax consequences in either MS A or MS B.

The transfer of existing IP from MNE Group to Company B would take place either directly as a sale or pursuant to a cost-sharing agreement under which Company B is obliged to make a buy-in payment to MNE Group on arm's-length terms. The buy-in payment might be structured either as a lump-sum payment or as a royalty. Normally, MNE Group would be taxed in MS A upon disposal of its IP. Such taxation can be a critical tax issue that needs to be addressed by MNE Group, particularly if the transfer relates to mature and highly valuable IP60.

##### Step 2

The royalty paid by Company C to Company B for the licence relating to the IP rights is deductible in MS C. In addition, the royalty payment is free of withholding tax in Country C, i.e. for payments between EU MSs this follows from the EU Interest-/Royalty directive if Company B is considered to be the beneficial owner.

As Company B is eligible for the IP/patent-box regime in MS B, which allows a preferential treatment of IP income, the received royalty payments are subject to low taxation in MS B.

### Step 3

Dividends distributed from Company B to MNE Group are subject to participation exemption, i.e. no withholding taxes are levied in MS B, and no corporate income tax is imposed in MS A.

#### Absence of CFC taxation

The ATP model relies on the absence of CFC legislation in MS A, which might otherwise include the income of Company B in the income of MNE Group.

#### Extraction of the ATP indicators

The table below extracts from the discussion above the ATP indicators relating to the ATP structure. For this purpose, it is helpful to distinguish between State A, State B and State C, as the rules depend on the character of the income or cost involved in each tier of the structure.

Table: Indicators resulting from Structure 5

State A	State B	State C
-Too generous tax-exemption of dividends received.	-No withholding tax on dividends paid.	-Tax deduction for royalty costs.
		-No withholding tax on royalty payments.
-No or low taxation of capital gain (fair market value) upon disposal of IP.	-Patent box or other preferential tax treatment of income from IP.	-No beneficial-owner test for reduction of withholding tax.
-No CFC rules.		-No general or specific anti-avoidance rules to counter the model ATP structures.

### **Structure 6 - Two-tiered IP ATP structure**

This ATP structure is a variation of the OECD example referred to in Annex C of the BEPS report<sup>61</sup> and in other OECD literature<sup>62</sup>.

This structure exemplifies another type of IP ATP channel.

The ATP structure takes advantage of mismatches in the rules on tax residence of a company incorporated in an MS. Such mismatches enable the ATP structure to benefit from the deduction for royalty payments under licence/sub-licence arrangements without any inclusion of the received income.

#### Introduction

The ATP structure is established in connection with a multinational group's global operations and its use of IP rights. The structure assumes that MNE Group, a multinational company headquartered in MS A, owns IP rights and plans to develop new IP rights.

The IP is being exploited by an operating subsidiary in MS C, OpCo. For the purpose of reducing the effective taxation of global IP income, the IP owned by MNE Group is transferred to a subsidiary which is incorporated in an MS but is tax-resident outside that MS and is tax-exempt. As a result, in

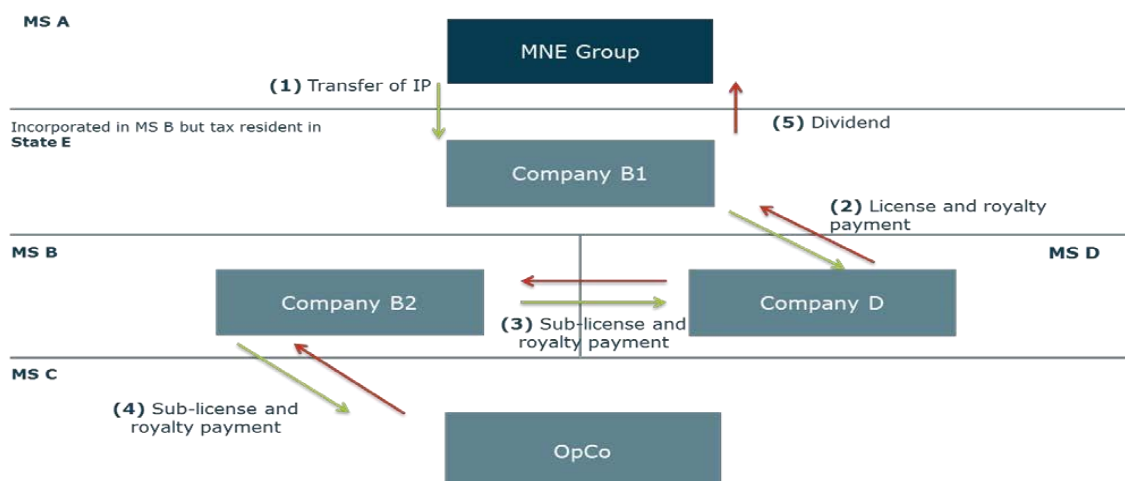
combination with licence/sub-licence arrangements, the royalty deducted by OpCo escapes taxation (a phenomenon that is sometimes referred to as “stateless income”)

### The mechanisms of the structure

The ATP structure is established by means of the following transactions and activities:

1. MNE Group establishes Company B1 as a wholly-owned subsidiary which is registered in MS B, but is managed and controlled in State E and is therefore tax-resident there. State E is a non-MS, and does not levy any corporate income tax. MNE Group transfers ownership of all its existing and future IP rights to Company B1. The transfer of the existing IP rights takes place either directly as a sale or pursuant to a cost-sharing or cost-contribution agreement (CCA). The transfer of the future IP rights takes place pursuant to a CCA.
2. Company B1 establishes Company D, a subsidiary resident in MS D, and Company B2, a subsidiary tax resident in MS B. Company B1 licenses all of its IP rights to Company D in exchange for a royalty. Company D performs no functions and holds no assets besides the sub-licensed IP rights. Moreover, Company D bears little or no risk with regard to the royalty flows.
3. Company D sub-licenses the IP rights to Company B2 in exchange for a royalty.
4. Company B2 sub-licenses the IP rights to OpCo, an operating group member company resident in MS C, in exchange for a royalty. Company B2 performs no functions and holds no assets besides the sub-licensed IP rights. Moreover, Company B2 bears little or no risk with regard to the royalty flows.
5. All the profits of Company B1 are distributed as dividends to MNE Group.

Figure: Two-tiered IP ATP structure



### Discussion of the ATP indicators

Below, we highlight the factors and characteristics which can either facilitate or restrict ATP in the structure set out above. The discussion follows the order of the transactional steps.

#### Step 1

The establishment of Company B1 would typically not trigger any direct tax consequences in MS A, MS B or State E.

The transfer of the IP from MNE Group to Company B1 would take place either directly as a sale or pursuant to a CCA under which Company B1 is obliged to make a buy-in payment to MNE Group on

arm's-length terms. The buy-in payment might be structured either as a lump-sum payment or as a royalty.

MNE Group's disposal of the ownership of the IP is taxable in MS A. Such taxation can be a critical tax issue that needs to be addressed by MNE Group, particularly if the transfer relates to mature and highly valuable IP. In order to avoid any significant taxation in MS A, the transfer would have to be effected early in the life of the IP, before the development of a significant track record of sales in the markets.

#### Step 2

Royalty payments from Company D to Company B1 are deductible to Company D. MS D does not levy withholding tax on royalty payments under its domestic laws.

Under its domestic laws, MS B does not subject Company B1 to taxation, since Company B1 has no taxable presence in MS B, it is centrally managed and controlled in State E, and its income arises from sources outside MS B. State E in turn does not levy any corporate income tax. As a result, the royalty income received by Company B1 from Company D escapes taxation in all three states.

This creates a situation where there is deduction of royalty in MS D and no inclusion of the royalty as taxable income anywhere.

#### Step 3

Company D and Company B2 both receive and pay royalty. They are subject to normal corporate income tax in their respective states of residence, MS D and MS B. However, their taxable profit is reduced to a small amount of "spread" earned. Neither of the two companies perform any substantial functions, and they bear little or no risk with regard to the royalty flows. According to international transfer pricing standards, Company D and Company B2 are therefore entitled only to very small profits.

#### Step 4

MS C imposes corporate income tax on the operating income of OpCo. However, OpCo can claim a local tax deduction for the royalty paid to Company B2. The royalty payment reduces or eliminates OpCo's taxable income in MS C.

The royalty payment is free of withholding tax in MS C. This can follow from the EU Interest-/Royalty directive, from a tax treaty between MS C and MS B, or from the domestic laws of MS C. By contrast, a direct payment of royalty to Company B1 might have been subject to withholding tax in MS C.

#### Step 5

Dividends distributed from Company B1 to MNE Group are subject to participation exemption, i.e. no withholding taxes are levied either by MS B or State E, and no corporate income tax is imposed in MS A.

#### Absence of CFC

It should be noted that the ATP structure set out above assumes that MS A does not apply any CFC rules to the structure. Generally, the CFC rules of MS A would normally prevent the ATP structure by requiring MNE Group to include in its own taxable income in MS A the royalties received tax-free by Company B1.

If MNE Group is not resident in MS A but in the US, check-the-box rules can result in a situation where the US CFC rules do not apply if Company B2, Company D and OpCo are disregarded entities under the US check-the-box rules.



### Extraction of the ATP indicators

The table below extracts from the discussion above the ATP indicators relating to the ATP structure. For this purpose, it is helpful to distinguish between State A, State B, State C, State D and State E, as the rules depend on the character of the income or cost involved in each tier of the structure.

Table: Indicators resulting from Structure 6

State A	State B	State C	State D	State E
-Too generous tax-exemption of dividends received.	-No withholding tax on dividends paid.  -Tax deduction for royalty costs.	-Tax deduction for royalty costs.  -No withholding tax on royalty payments.	-Tax deduction for royalty costs.  -No withholding tax on royalty payments.	-No withholding tax on dividends paid.  -Nil corporate tax rate
-No or low taxation of capital gain (fair market value) upon disposal of IP.	-No beneficial-owner test for reduction of withholding tax on royalty.	-No beneficial-owner test for reduction of withholding tax on royalty.	-No beneficial owner-test for reduction of withholding tax on royalty.	
-No CFC rules.	-Locally incorporated company not tax-resident if management/control is situated in another state.  -No general or specific anti-avoidance rules to counter the model ATP structures.	-No general or specific anti-avoidance rules to counter the model ATP structures.	-No general or specific anti-avoidance rules to counter the model ATP structures.	

**Structure 7 - ATP structure based on IP and cost-contribution agreements** This ATP structure is a variation of a structure presented in the OECD BEPS report<sup>63</sup>. This ATP structure takes advantage of the allocation of all (or most) of the royalty payments to a tax-free company, and at the same time benefits from R&D tax credit and the deduction of royalties paid in high-tax MSs. It represents another example of the IP ATP channel.

### - Introduction

The ATP structure is established in connection with a multinational group's intra-group transfer of manufacturing and sales operations and supporting intangibles.

The structure assumes that MNE Group, a multinational parent company based in MS A, transfers manufacturing and sales operations and supporting intangibles to (newly established) group companies. The group invests heavily in research, product design and development activities. Before the reorganisation and transfer of activities and IP, all the R&D activities were carried out by MNE Group. Furthermore, MNE Group owns all the IP resulting from its research and development activities, and

has sole responsibility for (and assumes all the risks associated with) the manufacture of products, which it sells through a network of sales and distribution companies in markets around the world.

Accordingly, most of the group's profit is considered taxable income in MS A.

The overall objective of the structure is to minimize taxation of the group's global income. This is achieved mainly by means of royalty payments to a tax-free company.

#### The mechanisms of the structure

The ATP structure is established by means of the following transactions and actions:

MNE Group establishes Company B as a wholly-owned subsidiary based in State B (a non-MS, e.g. a tax haven) and assigns the responsibility for the manufacture and sale of products outside MS A together with the supporting intangibles to Company B. MNE Group continues to carry out research and development activities for the group. The transfer of the existing and ongoing non-MS A IP rights takes place pursuant to a cost-sharing or cost-contribution agreement.

Company C and Company D are established in MS C and MS D respectively as wholly-owned subsidiaries of Company B. Company C contractually assumes responsibility for producing all the MNE Group's products and selling the MNE Group's products outside MS A and contractually assumes the risks associated with the business. Thus, Company C serves as the principal company responsible for the manufacture and sale of the group's products.

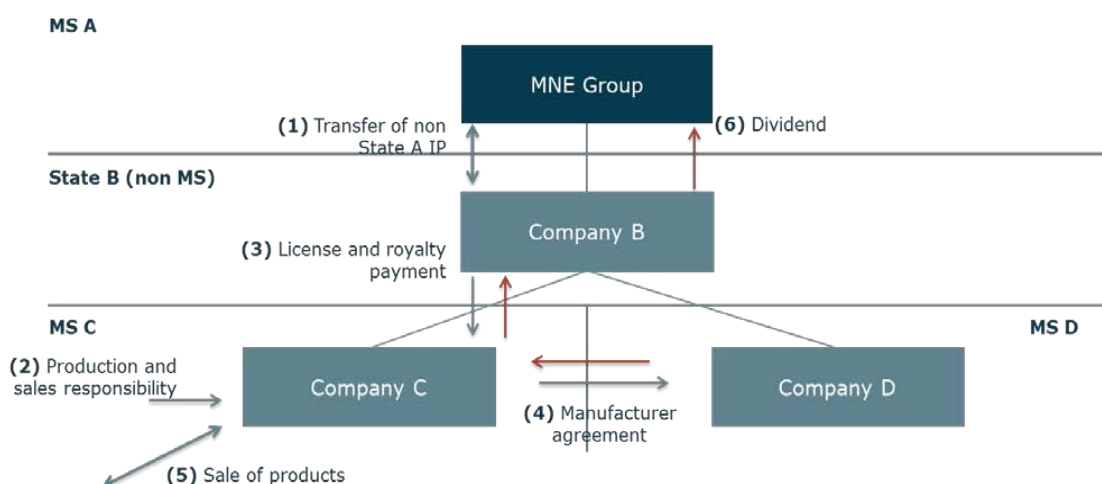
As the owner of non-MS A IP rights of the group, Company B licenses those IP rights to Company C. Accordingly, Company C pays royalties to Company B for the licences of the non-MS A IP rights of the group.

Company C engages company D to serve as a contract manufacturer. Under the manufacturer agreement, Company D manufactures the group's products, whereas Company C bears the principal risks associated with the production of the products. The actual production of the products might take place in Country D or in a branch of Company D in a low-cost manufacturing country. Thus Company D serves as the contract manufacturing entity responsible for the production of the group's products.

The manufactured products are the property of Company C, which sells the products to – or by means of related sales and marketing entities located in – higher-tax jurisdictions around the world. The contractual arrangements between Company C and the marketing companies specify that Company C assumes the principal risks relating to the marketing of the products.

All excess profits of Company B are distributed as dividends to MNE Group.

Figure: IP and cost-contribution agreement structure



### Discussion of the ATP indicators

Below, we highlight the factors and characteristics which can either facilitate or restrict ATP in the structure set out above. The discussion follows the order of the transactional steps.

#### Step 1

The establishment of Company B would typically not trigger any direct tax consequences in either MS A or State B.

The mere assignment of responsibility for the manufacture of the group's products and the sale of the products outside MS A would typically not trigger any direct tax consequences in either MS A or State B. However, the assignment would affect the allocation of income, which is described further under Step 2.

The transfer of existing non-MS A IP from MNE Group to Company B would take place pursuant to a CCA under which Company B is obliged to make a buy-in payment for pre-existing IP to MNE Group on arm's-length terms. The buy-in payment might be structured either as a lump-sum payment or as a running royalty. Such taxation can be a critical tax issue that needs to be addressed by MNE Group, particularly if the transfer relates to mature and highly valuable IP. The remuneration for the transfer of the existing non-MS A IP from MNE Group to Company B is taxable in MS A, and is deductible/eligible for depreciation in State B. However, if State B is a tax haven the value of the tax deductible/depreciation might be zero.

MNE Group continues to carry out research and development activities for the group. Therefore, on the basis of the CCA, Company B reimburses MNE Group for a share of the ongoing research and development expenses, reflecting the share of anticipated benefit Company B expects to derive from these ongoing research and development expenditures.

Company B's reimbursement of MNE Group's research and development expenses would be deductible for Company B in State B. However, if State B is a tax haven the value of the tax deductible/depreciation might be zero. Accordingly, the reimbursement would effectively eliminate MNE Group's current tax deduction for that portion of research and development expenses which is reimbursed by Company B under the CCA. Despite the fact that Company B is reimbursing MNE Group for a percentage share of its research and development costs, MNE Group is entitled to an R&D tax credit in MS A for the full amount of its R&D expenditures (including the portion reimbursed by Company B, following the transfer of part of the IP rights).

## Step 2

The establishment of Company C and Company D would typically not trigger any direct tax consequences in State B, MS C or MS D.

As Company C contractually assumes responsibility for producing all the group's products and selling the group's products outside MS A and also contractually assumes the risks associated with the business, the taxable income of Company C is comprised of global (non-MS A) sales revenue.

Thus, Company C earns profits equal to its gross sales revenue on foreign (non-MS A) sales, less fees paid to Company D for the manufacture of the goods (see Step 4), payment to any related commission-based marketing entities (see Step 5), and royalties paid to Company B (see Step 3). This profit is subject to corporate income tax in MS C.

## Step 3

By virtue of its buy-in payment and ongoing CCA payments, Company B is treated as the owner of the non-MS A IP rights of the group. Company B licenses those IP rights to Company C.

Royalties paid to Company B by Company C for its foreign IP rights are deducted in the computation of the corporate tax base of Company C. MS C does not impose withholding tax on royalty payments. If State B is a tax haven, State B does not impose corporate income tax upon receipt of royalties. Accordingly, a situation with deduction and no inclusion occurs. Almost the same situation occurs if State B only imposes a low income tax on the royalty income, e.g. due to a patent-box regime or because State B is a low-tax jurisdiction.

## Step 4

Under the manufacturer agreement, Company D manufactures the group's products for a fee based on the arm's-length principle. As Company C bears the principal risks associated with the production of the products, the fee is assumed to be equal to the direct and indirect costs of production plus a mark-up. Company D includes this fee in its taxable income.

## Step 5

Company C sells the products to or through related foreign sales and marketing entities. The contractual arrangements between Company C and the marketing companies specify that Company C assumes the principal risks related to the marketing of the products. On this basis, sales and marketing companies are compensated for their efforts on a basis reflecting their limited risk status. Such compensation would usually be computed on the basis of a target return on sales, which for transfer pricing purposes is determined by reference to the returns earned by arguably comparable limited-risk marketing and distribution companies. A ruling with the local tax authorities to confirm the level of profits might be sought.

## Step 6

Dividends distributed from Company B to MNE Group are subject to participation exemption, i.e. no withholding taxes are levied in State B, and no corporate income tax is imposed in MS A.

### Absence of CFC taxation

Finally, it should be noted that the ATP structure set out above assumes that MS A does not apply any CFC rules to the structure. Generally, if applicable CFC rules exist in MS A, they would normally prevent the ATP structure, since MNE Group would be required to include in its own taxable income in MS A the royalties received by Company B.

If MNE Group is resident in the US instead of MS A, the so-called check-the-box rules can result in a situation where US CFC rules do not apply, as Company C and Company D are so-called disregarded entities under the US rules.

#### Extraction of the ATP indicators

The table below extracts from the discussion above the ATP indicators relating to the ATP structure. For this purpose, it is helpful to distinguish between State A, State B and State C, as the rules depend on the character of the income or cost involved in each tier of the structure. In this structure, as such State C is not subject to the ATP structure, as it is assumed that the fee paid under Step 4 is remuneration at arm's length in accordance with Article 9 of OECD's model tax convention.

Table: Indicators resulting from Structure 7

State A	State B	State C	State D
-Too generous tax-exemption of dividends received.	-No withholding tax on dividends paid.	-Tax deduction for royalty costs.	-No critical indicators relevant)
-No or low taxation of capital gain (fair market value) upon disposal of IP.	-Patent box or other preferential tax treatment of income from IP.	-No withholding tax on royalty payments.	
-R&D tax incentive obtainable also for costs that are reimbursed.	-Nil corporate tax rate.	-No general or specific anti-avoidance rules to counter the model ATP structures.	
-No CFC rules.	-No general or specific anti-avoidance rules to counter the model ATP structures.	-Unilateral ruling on earnings spread.	

## Annex VII: Summary comprehensive policy options in the EU

Comprehensive policy options		Short description	Further assessment
Fundamental reforms	Destination-based tax	Allocates the right to tax exclusively to the jurisdiction where the good or service is consumed.	Discarded
	Unitary tax	Worldwide consolidated profits are apportioned according to turnover generated in each jurisdiction.	Discarded
	Residence tax base with destination tax rate	Taxing right and profit allocation rules remain as they are today, but the tax rate applied to the tax base in a jurisdiction is a weighted average of the tax rates of the countries where the turnover was generated.	Discarded
Realignment within current international tax framework (new permanent establishment and profit allocation rules)	Intra-EU - narrow scope: Adjustments to the CCCTB rules	Revision of permanent establishment rules and the apportionment formula in the CCCTB.	Option 1
	Intra-EU - wide scope: Directive on new permanent establishment and profit allocation principles + adjustments to the CCCTB rules	The Directive would establish new and common permanent establishment rules within the EU, applicable to all businesses. The new rules would also be incorporated in the CCCTB.	Option 2
	Intra-EU - wide scope + mandatory application vis-à-vis third countries	In addition to the previous option (Intra-EU - wide scope), the Directive would mandate EU Member States to apply the new rules vis-à-vis third countries.	Discarded
	Intra-EU - wide scope + recommend application vis-à-vis third countries	In addition to the option (Intra-EU - wide scope), a separate Recommendation would be made to EU Member States to revise their double tax treaties with third countries to reflect the new rules. The Commission would seek a mandate to negotiate the revisions vis-à-vis third countries, where this is of particular interest.	Option 3
Design options for a digital permanent establishment	Include the online sale of goods		Option a1
	Exclude the online sale of goods		Option a2
	Alternative application of digital activity thresholds	As soon as one of the thresholds is exceeded, the permanent establishment is triggered. This would allow capturing the widest range of business models.	Option b1
	Cumulative application of digital activity thresholds	This would result in a fairly narrow scope as the test would fail as soon as one criterion is not satisfied.	Option b2
	Revenue thresholds plus alternative application of other thresholds	This would ensure that the revenue threshold is always applied, but otherwise allow for wide scope.	Option b3

Source: EC. SWD(2018) 81 final

## GLOSSARY

**Artificial intelligence:** is intelligence demonstrated by machines, in contrast to the natural intelligence (NI) displayed by humans and other animals.

**Bottleneck:** is a point of congestion in a production system that occurs when workloads arrive too quickly for the production process to handle. The inefficiencies brought about by the bottleneck often create delays and higher production costs.

**Corporate Income Tax (CIT):** is a levy placed on the profit of a firm.

**Digital Single Market (DSM):** is one of the ten political priorities of the European Commission.

**Disintermediation:** is the removal of intermediaries in economics from a supply chain, or cutting out the middlemen in connection with a transaction or a series of transactions.

**Domain:** a distinct subset of the Internet with addresses sharing a common suffix or under the control of a particular organization or individual.

**Double Taxation Agreements (DTA):** an agreement between two countries that lessens the tax burden on citizens of each country living in the other.

**Double tax relief:** an arrangement in which an international worker or company pays no tax or less tax to one country, because they have been charged tax by another country on the same income.

**Four freedoms:** free movement of goods, people, services and capital.

**Information and Communications Technology (ICT):** is the infrastructure and components that enable modern computing.

**Internet Protocol (IP) address:** is a numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication

**Levy:** an amount of money, such as a tax, that you have to pay to a government or organization.

**Mark-up:** the amount added to the cost price of goods to cover overheads and profit.

**Monthly Active Users (MAU):** it refers to registered user who logged in and visited a company's digital platform in the 30-day period ending on the date of measurement.

**OECD BEPS action's:** refers to tax avoidance strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations. Under the inclusive OECD framework, over 100 countries and jurisdictions are collaborating to implement the BEPS measures and tackle BEPS.

**Pareto Optimality:** the situation in which some individual in the group is better off and no individual is worse off.

**Royalty:** use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience, for a fee.

**Server:** is a computer, a device or a program that is dedicated to managing network resources.

**Tax evasion:** involves tax payers using illegal strategies to avoid paying taxes.

**Tax authority or office:** public institution where you regularize your tax affairs.

**Tax avoidance:** legal strategy that involves tax payers avoiding paying taxes.

**Tax loophole:** a legal way of avoiding the payment of tax, or part of a tax bill, due to a gap in tax legislation

**Transfer pricing:** is the price at which divisions of a company transact with each other, such as the trade of supplies or labour between departments. Transfer prices are used when individual entities of a larger multi-entity firm are treated and measured as separately run entities.

**Value creation or generation:** the performance of actions that increase the worth of goods, services or even a business.

**Webpage or URL:** a protocol for specifying addresses on the Internet.



