EUROPEAN
COMMISSION

Brussels, 21.3.2018
SWD(2018) 81 final/2

COMMISSION STAFF WORKING DOCUMENT

IMPACT ASSESSMENT

Accompanying the document

Proposal for a Council Directive laying down rules relating to the corporate taxation of a significant digital presence

and

Proposal for a Council Directive on the common system of a digital services tax on revenues resulting from the provision of certain digital services

{COM(2018) 147 final} - {COM(2018) 148 final} - {SWD(2018) 82 final}

Table of Contents

1 INTRODUCTION: POLITICAL AND LEGAL CONTEXT

The digital single market is one of the 10 political priorities of the European Commission. The digital single market strategy[1] aims at opening up digital opportunities for people and businesses in a market of over 500 million EU consumers. Completing the digital single market could contribute up to EUR 415 billion per year to Europe's economy, create jobs and transform our public services. In the 18 months following the adoption of the digital single market strategy, the European Commission delivered the announced proposals. In the mid-term review of the strategy[2] it has updated its analysis and focused on the next series of challenges. Digital technologies are transforming our world and having an important impact on taxation systems. They help to improve their management, offering solutions to reduce administrative burdens, facilitate collaboration between tax authorities, and address tax evasion. However, they also transform business models, putting pressure on taxation systems of EU Member States.

To fully deliver on its potential, the digital single market needs a modern and stable tax framework for the digital economy. This framework is important to stimulate innovation, tackle market fragmentation and allow all players to tap into the new market dynamics under fair and balanced conditions. It is essential to ensure tax certainty for business investment and to prevent new tax loopholes emerging in the single market.[3]

Policy makers are struggling to find solutions which would ensure fair and effective taxation as the digital transformation of the economy accelerates. There are weaknesses in the international tax rules as they were originally designed in the 1920s for 'brick and mortar' businesses and have now become outdated. In particular, this has led to a misalignment of the place where value is created, notably in the case of user contributions, and the allocation of the taxing rights and ability to enforce taxation (Hallerstein, 2014).

Being grounded in the concept of physical presence, the current corporate tax rules no longer fit the modern context, where online trading across borders with no physical presence has been facilitated and where businesses rely heavily on hard-to-value intangible assets, where automation, user generated contents and data collection, analysis and treatment have moved from being auxiliary to being core activities for value creation. These issues potentially impact all businesses. As a result, some businesses are present in some countries where they offer services to consumers and conclude contracts with them, taking full advantage of the infrastructure and legal framework available while they are not considered established for corporate tax purposes. This situation tilts the playing field in their favour compared to established companies.

[1] COM(2015) 192.
[2] COM(2017) 228.
[3] The scope of this initiative is limited to tax issues arising in corporate taxation. Challenges in relation to the application of personal income taxes, especially of relevance for collaborative models, are not addressed in this framework. They are notably covered in the June 2016 Communication on an Agenda for the Collaborative economy (COM(2016) 356 final.

In contrast, the VAT system is effectively being adapted to the digital economy, as announced in the Action Plan on VAT[4] adopted in April 2016. Notably, the problem of digital companies establishing themselves in Member States with low VAT rates, or digital companies not being established in the EU at all, is addressed by taxing sales in the Member State of the consumer rather than in the Member State where the supplier is established (i.e., the VAT system is evolving towards the 'destination principle').[5] It is in the framework of this reform that the VAT proposal on e-commerce was adopted by finance ministers in December 2017.[6]

Since the start of its mandate, this Commission has taken action to ensure the principle that all businesses operating in the EU pay their taxes where profits are made and thus where value is created. This principle is essential for a fair and effective taxation in the single market, and it can only be enforced through common and coordinated measures. Divergent national approaches within the EU can fragment the single market, increase tax uncertainty, destabilise the level playing field and open new loopholes for tax abuse. As already identified in the Commission's report in May 2014,[7] the international tax framework needs to be reformed so that it effectively captures the value created from new business models. As it has so far proved difficult to agree on solutions at global level (OECD, 2015a), the Commission has adopted a communication in September 2017 on "A fair and efficient tax system in the EU for the digital single market"[8]. The Communication sets out an ambitious agenda for a common EU approach in the absence of adequate global progress, with the aim to ensure that the digital economy is taxed effectively and in a way that ensures fairness and supports growth.

The growing challenge of ensuring that all actors in the digital economy are fairly taxed on their income has still not been adequately addressed, primarily due to a lack of international consensus and the multidimensional nature of the challenge. The OECD examined this issue in the context of its BEPS project. However, at the time it proved difficult to agree on structural solutions at global level, as is evident from the OECD report on BEPS Action 1 (OECD, 2015a). The OECD has published its interim report on the taxation of the digital economy and presented it to the G20 Finance Ministers at their meeting in March 2018 (OECD, 2018). A final report is due in 2020, with a progress update in 2019.

The current situation is clearly unsustainable in an increasingly globalised and digitally connected world, where ever more activity is moving into the digital space. Failure to address this situation will lead to more opportunities for tax avoidance, less tax revenues for public budgets, negative impact on social fairness, including through erosion of the social

[4] COM(2016) 148 final.
[5] In the 2011 Communication on the Future of VAT (COM(2011) 851 final), the Commission outlined that the general principle of EU VAT law should be based on taxation taking place in the country where the good or the service is consumed (the destination principle). In considering the Communication, Council in May 2012 broadly endorsed the destination principle as the way forward for a definitive VAT system in the EU (Council conclusions).
[6] Council Directive (EU) 2017/2455 (OJ L 348, 29.12.2017, p. 7–22).
[7] European Commission Expert Group on Taxation of the Digital Economy Report, May 2014.
[8] COM(2017) 547 final.

budgets, and it will destabilise the level playing field for businesses. This puts at risk EU competitiveness, fair taxation and the sustainability of Member States' budgets. In its conclusions of 5 December 2017, the ECOFIN Council looked forward to appropriate Commission proposals by early 2018, taking into account relevant developments in the ongoing discussions at the OECD. EU leaders committed to global change of taxation rules, to adapt their tax systems to ensure that digitally-generated profits in the European Union are taxed where the value is created.[9]

The OECD is continuing its work on finding global solutions that can address the challenges, which is an opportunity for the EU to feed its work into this process. The Commission has followed closely the preparatory work at OECD level to ensure its approach is coordinated as much as possible. Indeed, there is a very broad agreement on the problem analysis and the most promising directions for solutions. As is clear from the interim report (OECD, 2018), work at the OECD through the Inclusive Framework[10] will focus on finding consensus-based solutions by 2020. Annex 13 explains the interaction between the Commission's initiative and the work of the OECD.

The priority for the Commission is to propose a meaningful, comprehensive solution, that can positively impact solutions at international level, against a baseline scenario in which digitalisation progresses rapidly, and so does the pressure to act. The impact assessment therefore concentrates on assessing comprehensive policy options and identifying a preferred solution in responding to core objectives. The comprehensive solutions revolve around structural changes that address the root issue, aligning the way in which the right to tax and profits are allocated between jurisdictions with the new ways of value creation. The assessment is done against a baseline scenario, in which the CCCTB and other relevant initiatives underway, such as the recently adopted VAT e-commerce proposals, will be implemented.

Arriving at a meaningful comprehensive solution can take time, but there is an urgent need to act. The urgency for an EU action lies in the immediate threat of unilateral actions from Member States that risks further fragmenting the single market while preventing the full roll-out of the digital single market. The longer it takes to find a solution, the bigger the pressure on individual Member States to act to ensure fair taxation and a more level playing field among businesses. The imperative to act now has been confirmed by the different consultation activities that the Commission has carried out as part of the preparatory works that are the basis for this impact assessment report. From the 462 respondents to the open public consultation, 82% as well as 16 out of 21 national tax administrations agree that "something should be done about the current international tax rules in what concerns the digital economy".[11] Therefore, unilateral initiatives are expected to spread. Since 2013, there

[9] ECOFIN Council conclusion, 'A' Item note 15175/17.

[10] The Inclusive Framework brings together about 110 jurisdictions to collaborate on the implementation of the OECD/G20 Base Erosion and Profit Shifting (BEPS) Package.

[11] Annex 2 presents a detailed summary of the results. The OECD has also carried out a public consultation exercise recently between September and October 2017. A summary of the main results can be found in Annex 2 to this report.

is an accelerating trend of countries testing or planning to implement alternative approaches to ensure effective taxation of the digital economy (see section 9.1).

There are clear risks of postponing EU action

→ There is a risk of **creating additional barriers** to the emergence and scaling-up of new businesses, especially start-ups. The digital single market cannot reach its full potential if young and innovative companies are held back by antiquated tax rules.

→ There is a risk of quickly **losing our competitiveness** by deterring investment, innovation and growth by offering an uncertain, unstable, fragmented and outdated tax framework.

→ Moreover, there is a risk of **missing the chance to realistically agree on a common response in the future**. The more measures are already in place, the less likely are the chances to agree on a common approach.

This is why the Commission believes that more immediate, interim measures should be considered. Hence this impact assessment also examines interim solutions to tackle the problem. These solutions revolve around new taxes that are relatively easy to implement and can serve as a good proxy for the comprehensive solution until this is implemented. This is in line with the Conclusions of the 5 December 2017 ECOFIN Council, which invite the Commission to assess such measures.

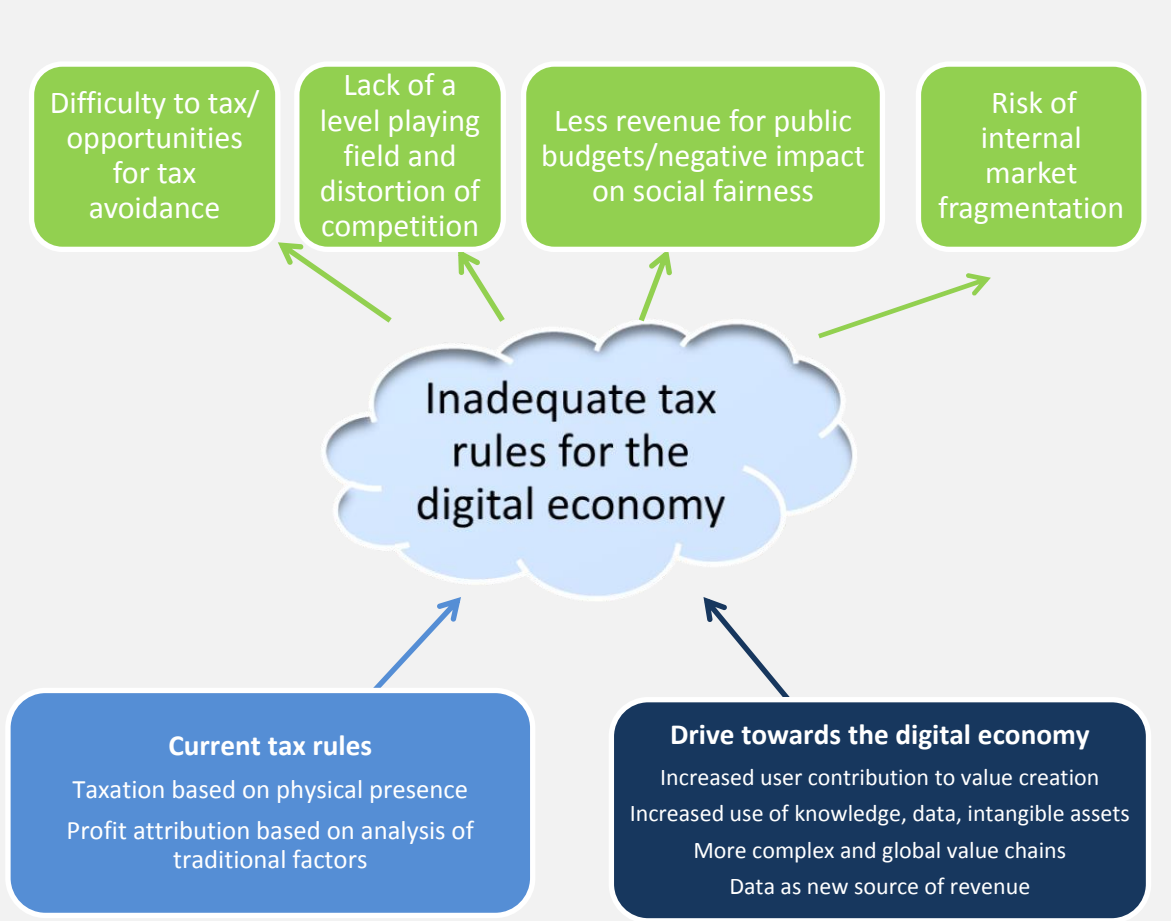
This impact assessment concludes that the best comprehensive policy option centres on new permanent establishment rules capturing 'digital presence' and new rules for profit allocation to the permanent establishment taking into account the contribution of users to the value creation process. These would be implemented within the EU through a Directive with a broad scope. All companies surpassing certain digital activity thresholds in a jurisdiction would trigger a (digital) permanent establishment in that jurisdiction. To make the current proposal for a Common Consolidated Corporate Tax Base (CCCTB) consistent with these new rules, the CCCTB proposal would have to be adapted to reflect the new digital permanent establishment rules. Its apportionment formula would also be adapted by introducing a factor that reflects the importance of user contributions to value creation, in line with the new principles for profit allocation. The new rules laid down in the Directive (and included in the CCCTB) would apply to companies that are tax resident in EU Member States. To deal with companies that have no tax presence anywhere in the EU, the Directive would be complemented by a Recommendation to Member States to update their double tax conventions in line with the new rules.

For the time period until implementation of the comprehensive solution, the preferred interim solution is a tax on gross revenue levied on digital activities relying strongly on user contributions. This is notably the case for revenue from services related to online advertising and from multi-sided digital platforms, connecting different sides of the relevant market (these types of businesses are further explained in section 2.1.3). After implementation of the comprehensive solution, the interim tax on revenue should stop being applied.

2 PROBLEM DEFINITION

The digitalisation of the global economy is happening fast and corporate taxation rules are outdated. Today's rules have been built on the principle that profits should be taxed where the value is created. However, they were largely conceived in the early 20th century. A vast majority of the respondents to the open public consultation (65%) as well as 13 out of 21 national tax administrations surveyed agreed with this view that the current rules are not at all or only to a little extent adapted to the digital economy (see Annex 2 for more details).

Figure (1): Problem tree



2.1 What are the problem drivers?

2.1.1 Current corporate tax rules

In the vast majority of cases, the allocation of taxing rights between two countries is laid down in bilateral double tax treaties. The network of double tax treaties within the EU is

almost complete.[12] The network of double tax conventions with the most relevant third countries is also quite dense.[13] These treaties lay down the rules of 'where to tax', i.e. what triggers a right to tax in a country, and 'how much to tax', i.e. how much of corporate income is allocated to a country. Tax residence in a country creates a right, in principle, for the residence country to tax worldwide income. Today's permanent establishment rules determine the threshold and type of activity that needs to be carried out in a country in order for a non-resident business to be taxable in that country. Non-tax residents become liable to tax if they have a presence that amounts to a permanent establishment.[14] In cases where there is no double tax treaty, domestic rules on tax residence and permanent establishment apply, without a mechanism to ensure that double taxation or double non-taxation does not happen.

The international corporate tax rules aim to tax profits where the value is created, but the implementation of this principle in the current international tax framework was mainly designed for the traditional economy. Because the current rules on permanent establishment are largely based on having a physical presence and treat the permanent establishment as if it was effectively a separate enterprise, these rules were clearly developed for the traditional economy. However, only profits attributed to the permanent establishment can be taxed. Today the profit of multinational groups that can be attributed to the subsidiaries and permanent establishments in various countries is determined by transfer pricing rules, based on an analysis of the functions performed, the assets used and the risks assumed by the different entities within the group. These transfer pricing rules, too, were developed mainly for the traditional economy.[15]

Most double tax treaties of EU Member States have been negotiated on the basis of the OECD Model Double Tax Convention, according to which having a permanent establishment requires a fixed place of business. Such a place will normally encompass physical premises, facilities and installations used for business purposes. This could also include a server, but it needs to be used to carry out core business activities, and not only preparatory or auxiliary ones. Furthermore, to be 'fixed', the establishment requires a certain degree of permanence (often 6 months). Marketing alone, without corresponding sales taking place in the same location, will usually not be considered to be a core activity. The same is true for other activities common for the digital economy, such as data collection and analysis. Moreover, some specific installations have traditionally been explicitly exempt, such as a warehouse for the storage and delivery of goods. When those characteristics are missing, the enterprise will be deemed not to have a permanent establishment, leaving the state where it is

[12] Only 4 bilateral situations are missing: Cyprus with Croatia and Luxemburg, and Denmark with France and Spain.

[13] All Member States have double tax treaties with China, India and Canada. Only one Member State (Croatia) does not have a treaty with the US. There are 6 Member States that have no treaty with Japan.

[14] To avoid that a company has to pay tax on the same income both in the country of the permanent establishment and in the country of tax residence, double tax conventions lay down rules to relieve double taxation in the form of an exemption of foreign income or a tax credit for taxes paid abroad.

[15] Section 2.2 of the OECD Action 1 report (OECD, 2015a) contains a comprehensive and more detailed explanation of today's corporate tax rules and their origins.

active without a taxing right. It also results in tax loopholes as explained in section 2.2.1 below.

The transfer pricing guidelines based on the OECD Model Double Tax Convention follow the 'arm's length principle' to determine the price for transactions that take place between companies in the same multinational group. Member States generally use these rules/guidelines as a benchmark for the double tax treaties. Specifically, transactions that take place between associated enterprises are analysed as if they had taken place between independent enterprises to ensure that they reflect market forces and not be used to shift profits for tax purposes. Profits accruing to an associated enterprise in a multinational group should reflect the functions performed, assets used and risks assumed by that enterprise.

2.1.2 Drive towards the digital economy

The digitalisation of the global economy is happening fast and permeates almost all areas of society. Although the size of the 'digital economy' is still relatively small - estimates revolve around 4-5% of value added (see footnote 42) - businesses of all kinds now derive much of their value from intangible assets, information and data. As a result, the digital economy displays a very strong growth path. Close to a third of the growth of Europe's overall industrial output is already due to the uptake of digital technologies.[16] In 2006, only one digital company was among the top 20 firms by market capitalisation whereas in 2017, already 9 digital companies were among the top 20.[17] Between 2008 and 2016, the annual average growth of revenues of the top 5 e-commerce retailers amounted to a staggering 32%, compared to only 1% in the whole EU retail sector. Between 2006 and 2016, digital advertising revenue in Europe has multiplied by more than 5.[18]

There is no well-defined digital sector as such. Notably, the Information and Communication Technology (ICT) sector is no synonym for the digital economy. Rather, one might consider the ICT sector as the backbone of the digital economy (and important driver for the digitalisation of more traditional industries). The ICT sector comprises both manufacturing activities and services, though services represent more than 90% of the total production. Computer and related activities is by far the largest sub-sector, followed by Telecommunications (Figure 1 in Annex 5) provides a breakdown by Member State). ICT

[16] This is accompanied by a larger background process of creating value by adding services to products or by replacing a product with a service, which is known in in economic literature as 'servitisation' of products. For details, see Vandermerwe, S. and Rada, J. (1988). Moreover, according to World Bank data, over the past two decades, the value added of the services sector in general (in terms of relative weight in GDP) has increased from about 58% in 1995 to 69% in 2015 (https://data.worldbank.org/indicator/NV.SRV.TETC.ZS).

[17] In this comparison, a company is considered 'digital' if it belongs to the sectors: technology, consumer services (e-commerce) or telecommunications. In this sense, in 2006 the only digital company was Microsoft and in 2017, the 9 digital companies were: Apple Inc, Alphabet Inc-Cl A, Microsoft Corp, Amazon.com Inc, Facebook Inc-A, Tencent Holdings Ltd, Alibaba Group Holding-Sp Adr, AT&T Inc and China Mobile Ltd.

[18] IAB Europe and IHS Markit (2017); IAB and IHS establish figures on online advertising spending in Europe based on data received from 27 European countries, of which 21 are members of the European Union (EU countries missing are Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta and Portugal and non-EU countries included are Belarus, Norway, Russia, Serbia, Switzerland and Turkey).

services are also growing at much faster rates than the ICT manufacturing sector (European Commission, 2017b).

Digital companies should not be considered pre-dominantly as ICT companies. Many companies commonly considered as digital companies do not belong to the ICT sector. The 2017 World Investment Report (UNCTAD, 2017a and 2017b) has developed a methodology to classify international companies into (1) digital companies, (2) IT and telecoms companies (both enablers of the global digital economy) and (3) 'other multinational companies'. IT and telecoms companies are broadly equivalent to the ICT sector. They are either IT hardware manufacturers or software developers/providers of IT services, or they are providers of telecommunication infrastructure and connectivity. Digital companies are characterised by the nature of their operations, which are strongly linked to the internet. The report further distinguishes between providers of internet platforms, e-commerce, digital solutions and digital content.

Focussing on the top companies in each category clearly shows the much more dynamic revenue growth in the digital sector. Based on a unique assignment of companies into one of the categories, UNCTAD (2017b) has produced new lists of top 100 multinationals in the categories 'IT and telecoms' and 'digital'.[19] Table (1) reports summary statistics for the largest companies in each category. Average revenue growth was around 14% for the top digital firms, compared to around 3% for IT and telecom enterprises and 0.2% for other multinational enterprises, although total revenue by the largest digital companies is still considerably lower than that of the other sectors. The table also reports the 'international footprint' and the relevance of intangible assets, discussed in the next subsection.

Table (1): Revenue growth, international footprint and relevance of intangible assets of largest multinational companies

Type of MNE	Total revenue	Annual revenue growth	International footprint	Relevance of intangible assets
Digital	872	14.2%	2.1	3.1
IT&Telecoms	2825	3.1%	2.2	1.2
Other	5682	0.2%	1.1	1.4

Source: *Own computations based on UNCTAD (2017a and 2017b) and Bureau van Dijk Orbis database.*
Notes: Total revenue for the latest available year for the top companies in each category in $ billion. 'Digital' and 'IT&Telecoms' each consist of 100 companies. The category 'Other' only includes 83 companies, since some of the companies on UNCTAD's usual list of top 100 global companies belong to the first two categories. Annual average growth is measured over the latest 7 available years. International footprint is the ratio of the share of foreign sales in total sales to the share of foreign assets in total assets. The relevance of intangible assets is computed as the market capitalisation over equity book value minus 1.

[19] As the focus in UNCTAD (2017b) is on international investment, only companies which exceed a certain threshold of international activity are considered. Furthermore, the companies need to report certain information in their publicly available financial accounts.

2.1.3 Specificities of digital business models in relation to taxation

The main characteristics of digital business models - as compared to more traditional ones - are their ability to conduct activities remotely, the contribution of internet users in their value creation, the importance of intangible assets and a tendency to winner-takes-most dynamics.

(a) Limited physical presence

Businesses in the digital economy can easily conduct activity remotely and are therefore very active in cross-border trade. Little physical presence is required to sell into a market. From one click on the computer, consumers can order goods and services from all over the world, translating into new market reach. For digital services more specifically, this is even more acute as the delivery of the service itself requires no or little physical presence. Such activities used to be mostly conducted locally in the destination location, and are now more and more conducted remotely in the country of origin (at source), although increasingly relying on consumer information from the destination country. One observes a disintermediation process – also referred as a *'scale without mass'* business structure.

As a result, businesses of the digital economy have a fundamentally different international footprint, with far fewer assets in the location of their foreign sales. One way to measure this phenomenon is by measuring the share of foreign assets in total assets against the share of foreign sales in total sales.

International footprint = (foreign sales/total sales)/(foreign assets/total assets)

Doing so for the three categories of largest global companies (see Table (1) above) shows that, compared to the traditional non-IT companies, digital companies, have a much larger share of sales earned outside their home country relative to the assets they hold abroad. UNCTAD (2017a) provides a more detailed breakdown which helps arriving at a clearer picture. As displayed in Figure 2 of Annex 5, the international footprint is particularly striking, with values exceeding 2.0, for internet platforms (search, social networks or other platforms), electronic payment companies and companies classified as 'other e-commerce', which includes for example major travel platforms. In contrast, telecom companies, traditional businesses and online retailers, but also providers of digital media have a balanced ratio of around 1.

(b) Disruption in value creation and indirect revenue generation

The relevance of user contributions is central, materialising through the mass of adopters, the provision of personal data and other forms of user contributions to the production process. Participating in a platform or a network creates a value. As opposed to the conventional 'value chain' business model where value is generated by the supplier of a product or a service, a large part of the value derived by users of an online platform is created by other users. This is particularly true for multi-sided platforms. The positive effects that one user of a good or

service has on their value to other users are known as 'network effects'[20], meaning that the marginal benefit of adopting the service increases with the number of users.

The concept of 'prosumers' is emerging where end-users participate in the value creation.[21] The end-user is no longer solely a consumer but contributes, either actively or passively, to the value creation.[22] The consumer may receive services for free, but also provides data that are valuable for a company or contributes more actively to the service, for example by uploading content. This is a phenomenon that Colin (2013) associates to a form of work without monetised compensation (obvious examples are Google or Facebook to which access is free but all activities, searches, interactions that reveal interests and preferences are recorded and can used to create value). Petruzzi and Buriak (2017) also refer to 'unconscious contributor' or 'unconscious employees'. This creates challenges in determining where and by whom value is created.

Often digital businesses provide one type of products for free and monetise others, creating a disconnection between revenues generated and services provided. Revenue generation in the digital economy derives from both direct payments (subscription or transaction fees) and indirect payments through the generation of value in one activity (e.g. social media, search engines) that is later monetised as input for another activity (e.g. sales of advertising space or transmission of data). The generation of income via advertisements arguably replicates the selling of advertisement space on television or radio. What does make a difference, however, is the unique, almost personalised manner in which advertising placements track the user – by responding directly to their search-engine searches or direct clicks on advertisements (Commission Expert Group on Taxation of the Digital Economy, 2014). Taken together the disconnection between the consumers of advertisements and the advertising companies and the fact that user data are central to the personalisation of advertisements result in a particularly stark deviation from the principle of taxation where the value is created.

(c) Importance of intangible assets

One key feature of intangible assets is that they are difficult to value reliably, while they are the essence of a competitive advantage in some businesses. When generated internally, generally accounting principles including international accounting standards prohibit the recognition of those assets, even though they are a core component of a business model. As a consequence, they do not appear on a company's balance sheet until such assets are either acquired or otherwise transferred to a third party for a consideration (e.g. through a business

[20] See Commission Staff Working Document on Online Platforms, accompanying the document "Communication on Online Platforms and the Digital Single market" (COM(2016) 288)

[21] The term was first coined by futurist Alvin Toffler in his work Future Shock (1970) and later developed in its sequel, The Third Wave (1980).

[22] For example, network effects will be particularly relevant marketplaces multi-sided platforms) or social media that connect users. Reliance on big data is very strong for social media, internet search services and online advertising platforms while it is moderate for cloud services.

combination), in which case the financial statements of the acquiring company must generally recognise these assets for their fair value.

There is evidence that intangible assets are particularly important for companies with significant digital activities. Markets tend to attribute their own value to assets, whether recognised or not. Therefore, as a proxy, differences in the importance of intangible assets can be derived by comparing differences between a company's equity book value and its market valuation (UNCTAD, 2017a). The increasing importance of intangible assets is shown by a widening gap between book and market values of companies. Undisclosed intangibles of the largest digital multinationals are estimated to be on average roughly equal to 3 times the company's total equity book value – significantly more than the average recorded for IT & telecom companies and other multinational enterprises (see Table 1 above). At the same time, the excess in market capitalisation over equity book values are of course also an indication of the market expectations about future revenue generation.

(d) Winner takes most dynamics

Digital markets are often dominated by a few 'superstar' firms. Today's big players of the digital economy are fairly young companies that have created new markets and quickly become global, dominant players. Common characteristics related to this phenomenon include the volatility in the market (the rapid gaining and losing of market share), the tendency towards monopoly and oligopoly and the relevance of user contributions to the success of the business model (OECD, 2015a). Although modern technologies, such as the internet, software and cloud services, make it possible to enter markets at minimal costs and as such threaten a dominant position (Evans and Schmalensee, 2016), digitalisation and globalisation contribute to a trend of 'winner takes most' markets that are dominated by a few 'superstar' firms (Veugelers, 2017). For digital markets this has to do with the relevance of large fixed investments, combined with low marginal costs (once developed digital goods can be reproduced at almost no cost), network and lock-in effects.[23] These are strong forces bringing about increasingly concentrated markets.[24]

Based on the above discussion, some digital business models stand out in particular. There is no unique or best way to categorise business models. Box (1) identifies four categories based on the nature of activities, how revenues are generated and what this implies for taxation in the locations where activities take place. Often, companies are hybrid and mix the business models identified below.

[23] See for example Shapiro and Varian (1998). Moreover, the literature on barriers to market entry recognises the type of lock-in effects that networks can entail as a possible switching barrier, which is one form of a barrier to market entry. Similarly, low taxes, giving a cost advantage to the incumbent firm, are one form of a market barrier. A review of the literature on market barriers and a classification of different forms of barriers is provided in McAfee et al. (2003).

[24] Capacity limits, product differentiation and potential for multi-homing (i.e. the possibility to be active on several similar platforms) however can limit the level of concentration (Haucap and Heimeshoff, 2014).

Box (1): Business models in the digital economy

1. The digital platform model granting access to a marketplace
This business model offers a marketplace for users of the platform, which acts as an intermediary. The model typically covers two services: (i) the platform offers access to users in exchange for a fee (transaction-based or subscription); and (ii) the users offer services or goods among themselves.

This model connects demand and supply: this can be spare capacity and demand in the case of collaborative platforms; it uses reputational currency mechanisms to underpin consumption; and in some cases it enables individuals to share 'access' to assets rather than exchanging them outright. Revenue models vary significantly among platforms. Most adopt a fixed or variable commission-based approach, with commissions ranging from 1-2% within peer-to-peer lending to up to 20% for ride-sharing services. The value is derived from marketing, brands, collection and exploitation of user data needed for the matching of users and developments in software to enable better this user matching.

2. The advertising model
The model typically covers two services: (i) a platform offers access to a service that can be a social network, a search engine, a content etc. to users for free, in exchange of personal data; and (ii) personal data obtained from such users is used to sell targeted advertisement placements or it is sold, either to advertising companies or to others businesses.

The model relies on advertising revenues by targeting marketing messages to consumers or selling user data to business developers. The extent to which platform users have to provide personal data in exchange of an access to a service varies significantly from one activity or company to another as well as the degree of users' awareness and level of involvement (passive versus active participation) in giving away personal data. More and personalised user data enables better targeting of marketing messages and increases the value of the advertisement medium. This value is difficult to measure for tax purposes. The specificity of such revenue model is that it disconnects users from the revenue sources.

3. The digital platform model granting access to content/solutions
The model covers typically one service: the platform offers users access to a platform and to content or solutions in exchange for a (subscription) fee.

This model covers a diverse set of digital activities, including online media, streaming and broadcasting of digital content, gaming activities, the provision of digital solutions such as e-payment services or cloud computing. The business either provides access to digital contents such as music, videos or e-books that were traditionally connected to a physical product (for example, a DvD or a book) and charges a (subscription) fee for (continued) access. In cases where the services is provided for free and financed through the sale of targeted advertisement placements or the sale of data, the activity is considered to fall under business model 2 above. Or it offers a solution, such as cloud computing services or provision of software. The service provided is fully digitalised. In the business-to-consumer segment, the provision of the service often does not require any physical presence in the location, i.e. the market can be served fully remotely. For digital solutions in the business-to-business sector, the service is often highly customised and therefore tends to require more physical presence at the location of the

consumer.

4. The distant sales model/e-commerce
This model equates to online retail activities. Goods are sold via a website, and physically transferred afterwards. Revenues are generated from the sales of goods.

2.2 What are the consequences?

2.2.1 Difficulty to tax/opportunities for tax avoidance

(a) Misalignment of value creation and taxes

For globally active companies that do not require physical presence to gather and process data there is a strong misalignment between value creation and taxation.[25] The use of intangibles and of data knowledge (including consumer data) and other user contributions to improve or develop products and services or to define marketing, sales and pricing policies has increased considerably, although it is not a new phenomenon. It does not raise tax issues as long as a company's activities are pre-dominantly domestic, in which case all value creation would also be 'domestically' captured for taxing purposes. However, it does raise an issue in a global context. The current permanent establishment and transfer pricing rules that address the questions 'where to tax' and 'how much to tax' do not take into account the user contribution in the allocation of taxable profits, which results in a mismatch with the value creation. The views of stakeholders have been tested on this topic: 67% of respondents to the open public consultation as well as 15 out of 21 national tax authorities agree with the statement that "states are not able to collect taxes on the value that some digital companies create on their territory".

(b) Artificial avoidance of permanent establishment rules

Since the current permanent establishment rules are grounded in physical presence and traditional core activities, they can be easily circumvented for certain digital activities. Even sizeable digital activities in a location do not always result in a permanent establishment in that location (see Section 2.1.1). Moreover, it is often fairly easy for digital economy businesses to find arrangements that circumvent the existence of a permanent establishment. Avoidance of a permanent establishment happens in practice through (i) the use of commissionaire arrangements and (ii) the treatment of some critical functions as preparatory or auxiliary. Through commissionaire arrangements a person sells products in a country in its own name but on behalf of a foreign enterprise that owns these products. Other arrangements involve contracts that are substantially negotiated in one state but are finalised or authorised abroad, or where the person who concludes contracts is an 'independent agent' to whom exceptions are available. Moreover, businesses have been able to avoid creating a permanent

[25] That is, the phenomenon of disintermediation due to a process of dematerialisation in the business model of digitalised firms.

establishment by categorising their business activity as qualifying for one of the 'specific activity exemptions' according to which a permanent establishment is deemed not to exist where a place of business is only used to carry out the activities listed in that paragraph. One example is the use of a storage facility solely for the delivery of goods to customers. Another possibility to trigger exemptions is by breaking up into smaller operations to claim that each part is merely engaged in preparatory or auxiliary activities. A more detailed discussion on the artificial avoidance of permanent establishment rules is provided in Annex 7.

(c) Shifting profits through transfer of intangible assets

Even where there is a permanent establishment, tax can be avoided by shifting mobile intangible assets to low tax jurisdictions. Not only can intangible assets be shifted fairly easily from one jurisdiction to another, but they also are difficult to value. In the absence of rules that are robust against abuse, this opens significant opportunities for aggressive tax planning, which allow more digitalised companies to benefit from certain tax regimes and push down their tax burden. This is done via intra-group payments (royalties) for which an objective transfer price is difficult to determine. Profits allocation rules follow contractual arrangements of transactions between intragroup companies. Indeed, legal ownership of intangibles is a decisive factor for determining profits, resulting in entities with little business activity potentially benefitting from high profit allocation (Olbert and Spengel, 2017).

A detailed examination of tax rules confirms the profit shifting opportunities multinational enterprises with sizeable intangible assets have. Out of seven important tax planning structures identified by Ramboll Management Consulting and Corit Advisory (2015), three involve the use of intellectual property. The same study determines the prevalence across Member States of tax rules that are necessary or conducive for the set-up of aggressive tax planning schemes. It identifies 15 Member States whose tax frameworks have elements that directly promote or prompt an aggressive tax planning structure. All but two Member States show a lack of anti-abuse rules. ZEW (2016) estimates the impact of aggressive cross-border tax planning schemes on the effective average tax rates. It shows without ambiguity that placing intellectual property in a country with a generous intellectual property box allows lowering the effective average tax rate significantly - and more than any other tax planning structure.

Econometric studies evidence the importance of the location of intangibles, and notably intellectual property, in profit shifting strategies. Dischinger and Riedel (2011) find that for European multinational enterprises a one percentage point increase in corporate income tax rate reduces intangible assets in the balance sheet by about 1.7%. Several contributions evidence more generally the significant effect of corporate taxation on the number of patent applications and relocations (Karkinsky and Riedel, 2012, Böhm et al., 2012, Griffith et al., 2014, Alstadtsaeter et al., 2018). More evidence on this is summarised in Annex 7.

The views of stakeholders have been tested on this topic as well: 73% of respondents to the open public consultation as well as 14 out of 21 national tax authorities agree with the statement that "the current international taxation rules allow digital companies to benefit from certain tax regimes and push down their tax contributions".

2.2.2 Lack of a level playing field and distortion of competition

Digital businesses models in the EU face a lower effective average tax burden than traditional business models. Based on stylised business models, ZEW et al. (2017) finds that a cross-border digital business model is subject to an effective average tax rate of only 9.5%. This compares to a rate of 23.2% of a cross-border traditional business. To a certain extent, the lower tax levels simply reflect that modern tax policy recognises the importance of R&D and digitalisation for future growth and prosperity, as is also reflected in the CCCTB proposal which includes an allowance for R&D expenses.[26] However, beneficial regimes targeting very mobile assets also indicate that countries compete fiercely on this very mobile segment. Through aggressive tax planning, for example by placing intellectual property in an intermediary company located in an EU country with an attractive intellectual property box regime, companies can achieve effective average tax rate levels of zero and below, i.e. their activity is effectively subsidised (ZEW, 2016). Table (2) reports effective average tax rates for different business models and type of companies.

Table (2): Effective average tax rates of different model companies

	Domestic company	Multinational group	Multinational group engaged in aggressive tax planning using most beneficial IP box regime
Traditional business model	20.9	23.2	16.2
Digital business model	8.5	9.5	-2.3

Source: Own computations based on ZEW (2016, 2017) and ZEW et al. (2017).
Notes: 1/ Aggressive tax planning by the multinational group is assumed to be done though exploitation of the most beneficial intellectual property regime available in the EU. 2/ For the multinational groups, cross-border investments within the EU and with certain third countries (notably: US, Canada, Japan, Norway and Switzerland) are considered. 3/ The 9.5% for the multinational group with a digital business model is an average of 8.9% for a business-to-business model and 10.1% for a business-to-consumer model.

A lower tax burden for digital businesses can result in competitive distortions that contribute to a lack of a level playing field between different types of companies. Some evidence exists, suggesting that tax planning can result in higher mark-ups and competitive advantages (see Annex 7). This is not only true between those companies that are more digitalised and those that are less, but also between digital companies that pay tax in a given Member State and those that serve the same market remotely or minimise payments through aggressive tax planning. A lack of a level playing field also occurs across the single market, as some Member States feature more prominently in tax planning schemes than others. In the worst case, a significantly lower tax burden enables larger digitalised companies to drive out

[26] Three factors explain the difference in effective average tax rates. Expenses for the creation of software and other intangible goods, which play a much bigger role for digital businesses, are often immediately deductible whereas physical assets used in the traditional business model are depreciated over time. Businesses active in digital activities typically spend relatively more on R&D activities, for which many countries apply tax incentives. Finally, an important number of countries offer lower tax rates for earnings derived from intellectual property ('intellectual property boxes').

market competitors or hinder potential entrants. This is economically inefficient and hurts innovation, growth and welfare.

Both the national tax authorities as well as the wider public that responded to the public consultation have confirmed that the competition between traditional and digital businesses is not an equal one. 13 out of 21 national tax authorities and 65% of the respondents to the public consultation agree that "the current international taxation rules do not allow for fair competition between traditional and digital companies".

2.2.3 Less revenue for public budgets/negative impact on social fairness

Lower (or even no) taxes paid on profits from digital activities puts at risk the sustainability of public finances. It results in unfair burden sharing across taxpayers, constraints the financing of our social models and ultimately weakens our social contract. Although it is difficult to isolate the share of digital activities, the tax revenue shortfalls from aggressive tax planning activities cost billions of euros every year. It has been estimated in a study for the European Parliament that within the EU the corporate tax revenue losses amount to about EUR 50-70 billion (Dover et al., 2015).[27] This is equivalent to the lower bound to around 0.4% of GDP. Governments of countries, whose tax bases are eroded, either have to raise revenue from other taxes or have less revenues for growth-enhancing reforms and for redistribution purposes to fight inequalities. Recent new estimates by Tørsløv et al. (2017) show that the aggregated loss to tax havens for Germany, France, Italy and Spain would reach over EUR 40 billion per year (see Figure 4 in Annex 7).

The perception of the social fairness of the tax system suffers if companies do not contribute their 'fair share' to budgets. Digital businesses conducting sizeable activities in a jurisdiction will usually also benefit from the public infrastructure offered by that jurisdiction. For mostly 'web-based' companies, this will include the physical internet infrastructure, rule of law and judiciary in the country, but also the education and digital skills of potential users. Within the single market, all companies with cross-border activities benefit from the fundamental freedoms. Therefore, a non-contribution to public budgets is seen as inherently unfair by many and can undermine taxpayer morale. This perception is widely shared by both the national tax administrations as well as the respondents to the public consultations. 14 out of 21 tax administrations as well as 67% of respondent agree that "social fairness is impacted because some digital companies do not pay their fair share of taxes".

2.2.4 Risk of further single market fragmentation

An uncoordinated implementation of national measures adds distortions to the functioning of the single market, also contributing to business uncertainty on the future tax framework. The introduction of country-specific tax regimes leads to distortions of competition, high tax compliance costs and may result in double taxation of digitalised companies that supply cross-border services in the single market. This hurts the

[27] Their methodology assumes that national deviations from the average corporate tax to gross operating surplus of companies ratio are due to tax avoidance.

competitiveness of the EU as a whole and adds uncertainty. Moreover, a patchwork of national measures generates new incentives and opportunities for tax arbitrage. Some Member States already have in place targeted regimes, in the areas of both direct and indirect taxation, others are planning such taxes. Section 9.1., 9.3.1 and Table (1) in Annex 6 provide an overview of relevant national taxes/initiatives.

3 WHY SHOULD THE EU ACT?

3.1 Legal basis

As the nature of this legislative proposal is twofold, encompassing a comprehensive solution and an interim solution with slightly different objectives each, the two measures are justified on different legal grounds.

The legal basis for the comprehensive solution is Article 115 of the TFEU. The comprehensive solution aims at introducing a comprehensive and modern framework for the taxation of the digital economy to address structurally the root-cause of the issue and improve the functioning of the single market. It would change the way the taxable nexus is established and profit is allocated to the taxable nexus. This approach could also be integrated into the Common Consolidated Corporate Tax Base (CCCTB) to provide for a comprehensive reform of the corporate income tax system and improve the functioning of the single market.

The legal basis for the interim solution is Article 113 of the TFEU. The interim solution aims at ensuring that an immediate and harmonised response at EU level is provided to some of the identified problems. Additional fragmentation and distortions of competition could arise if unilateral actions were implemented by Member States before a comprehensive solution can be agreed. This requires the creation of a harmonised legislative framework within the EU concerning a new tax on digital activities. Given its (preferred) features, this tax would have more elements of an indirect tax, so it would need to be treated as an indirect tax other than turnover taxes and excise duties.

3.2 Subsidiarity: Necessity of EU action

A common and coordinated action at EU level is the only one with real chances to tackle the existing problems, rooted in the existing international tax framework, in a comprehensive and efficient way. This is because the problems posed by the current corporate tax framework not keeping pace with the digital sector are not particular to a specific Member State, but constitute a common challenge for the EU as a whole. In fact, such problems are of an international dimension because one of the key aspects of digital businesses is that they can easily conduct activity remotely and are very active in cross-border trade.

As regards the comprehensive solution, only an EU answer to the challenges posed by the digital economy to the corporate tax framework would be coherent with the efforts

already made to subject taxpayers to a single set of corporate tax rules across the EU. Although at present the corporate taxation framework is only to a limited extent harmonised at EU level, there are relevant proposals adopted by the Commission currently on the table of the European Council (CCTB and CCCTB). They aim to facilitate business within the EU by subjecting taxpayers to a single rulebook of corporate tax legislation across the single market and also make the system more robust and resilient to aggressive tax planning. From that perspective, uncoordinated action targeting the digital sector would undermine the existing work at EU level on the wider corporate taxation rules.

EU action is also necessary to mitigate the fragmentation of the single market and the creation of distortions of competition within the EU due to interim unilateral actions adopted by Member States while awaiting the adoption of a comprehensive solution. Common and coordinated action at EU level to reform the corporate tax framework so as to better reflect the digital activities of companies may take some time to agree so there is a further case for common action at EU level in the interim period to avoid distortions to the single market from unilateral actions by Member States. Several Member States have already introduced, and others have announced their intention of introducing, a tax regime specifically addressing the challenges of taxing digital economy companies, be it in the form of an indirect or direct tax. Therefore, to an extent, tax obstacles have been and are being created by the existing and forthcoming legislation of these Member States. As explained in Table 6 of Section 9.1, these national experiences vary significantly, and it is unlikely that, without a certain degree of coordination, the different Member States concerned will follow a common model. Uncoordinated national actions could aggravate the current situation, further contributing to distortions in the single market and the risk of double taxation. Consequently, a common approach at EU-level in the area of taxation of digitalised companies is essential in order to avoid distortions that hamper the proper functioning of the single market.

3.3 Subsidiarity: Added value of EU action

EU action would be more efficient and would minimise compliance costs. The fact that an EU solution rather than different national policies is put forward would entail a reduction in the compliance burden for businesses subject to the new rules. Instead of fragmenting the market and adding cross-border tax obstacles to today's tax systems through unilateral measures, a coordinated EU action would ensure that the issue is addressed without hurting the single market and its competitiveness. Moreover, an EU answer to the challenges posed by the digital economy to the corporate tax framework would be coherent with the efforts already made to subject taxpayers to a single set of rules across the EU. Uncoordinated action targeting the digital sector would undermine the existing work at EU level on the wider corporate taxation rules.

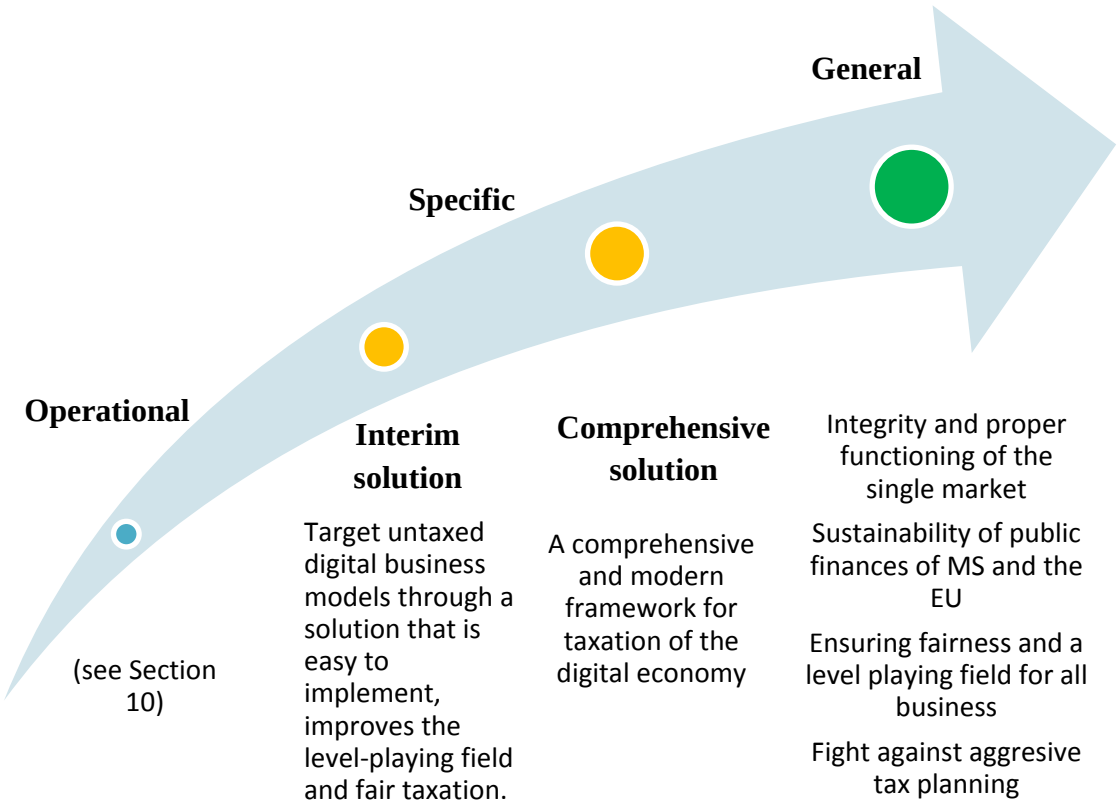
Another advantage of EU action is that it would help steer discussions at international level on the taxation of the digital economy in a more effective way than action at Member States level. EU action cannot be isolated from the evolution of the international corporate tax framework. In this regard, it is important to ensure the consistency and

coherence of the tax rules put forward at EU level with the measures discussed and adopted by the OECD. However, as it has so far proved difficult to agree on the solutions at global level, the Commission believes that it is time to promote an ambitious EU agenda on the matter and a common EU approach to support global progress towards taxing the digital economy effectively and in a way that ensures fairness and supports growth.

4 OBJECTIVES: WHAT IS TO BE ACHIEVED?

Figure (2) below presents the general and specific objectives of the initiative. The present initiative would result in two proposals: one focusing on an interim solution and another one focusing on a comprehensive long-term solution, The general objectives of the two sets of proposals are the same, while the specific and operational objectives are different. The operational objectives will be described with the preferred option.

Figure (2): Objective tree



4.1 General objectives

For both the interim as well as the comprehensive solution, the general objectives of the initiative, are:

- To protect the integrity of the single market and to ensure its proper functioning.

- To make sure that the public finances of Member States/ the EU are sustainable and that the national tax bases are not eroded in the future.
- To ensure that social fairness is preserved and that there is a level playing field for all business operating in the EU. The proposals aim at a more efficient taxation framework that properly captures value creation.
- To fight against aggressive tax planning and to close the gaps that currently exist in the international rules.

4.2 Specific objectives

4.2.1 Comprehensive solution

The specific objective of the comprehensive solution is to come forward with a modern corporate tax framework which allows for the fair and efficient taxation of the digital economy. Such a framework would be adapted to the economy of the 21st century. It would modify the current rules which were mostly designed for a time when companies were not digitalised and more physically grounded on the territory of a state. As indicated in the Communication on Digital Taxation, the ideal solution to taxation of the digital economy would be through a global approach. Therefore, our proposal should both reflect what seems desirable internationally, but also be easy to align to any possible emerging international solution, i.e. broad and flexible in its approach, while still providing Member States with a solid base to effectively tax digital activity.

4.2.2 Interim solution

The specific objective of the interim solution is to put forward measures that would target certain digital activities as a proxy for the comprehensive solution. This measure should be easier to implement and should level the playing field in the interim period until the comprehensive solution is implemented.

5 WHAT ARE THE AVAILABLE COMPREHENSIVE POLICY OPTIONS?

5.1 What is the baseline against which options are assessed?

It is expected that the development of the digital economy will follow a strong growth pattern over the next decade. The digital transformation brings significant benefits to society. It enables higher productivity across the economy, which leads to lower prices, higher real incomes and to higher standards of living. It also facilitates the emergence of new and better products and services with fewer resources, reduces physically demanding efforts and, for example, exposure to dangerous activities in the workplace. Much of this is yet to come with the completion of the digital single market. The strategy launched in 2015 is defined as a space in which the free movement of goods, persons, services and capital is ensured and where individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition, and a high level of consumer and personal data protection,

irrespective of their nationality or place of residence. Judging from the exponential trend that market value and revenues of the digital economy have followed over the past years, significant growth in the years to come seems a reasonable assumption. As a consequence, the importance of the digital economy versus the traditional economy will continue to increase. Traditional companies will become more and more digital, replacing traditional business models, but also creating completely new business opportunities. This assumption is in line with most projections of how the digital economy will develop in the future.[28]

The dynamic baseline scenario takes into account relevant initiatives at various levels (EU, OECD and Member States) and assesses whether they address the tax challenges posed by the digital economy. Two aspects are important in this assessment. First, do the initiatives effectively address structural shortcomings of the current international tax system? Second, do they reduce specific tax avoidance opportunities that businesses of the digital economy can apply more easily than other companies.

EU level

In the baseline scenario, we expect that all current relevant Commission initiatives will be adopted and implemented as planned.

- The implementation of the Common (Consolidated) Corporate Tax Base (CCCTB), adopted by the Commission in October 2016, is envisaged in two steps. In a first step, Member States would adopt common tax base rules by 2019. In a second step, they would move to consolidation and apportionment of the tax base through a formula by 2021.

- The Anti-Tax Avoidance Directive that was adopted in July 2016 and will be implemented in most parts as of January 2019.

- In December 2017, the EU finance ministers adopted a package[29] on VAT in e-commerce, moving towards the definitive regime.

The CCCTB in its current scope and form would not offer a structural solution to some of the important challenges in taxing businesses of the digital economy. The CCCTB has a limited scope and companies not subject to mandatory application would remain subject to the standard profit allocation rules. However, even for companies applying the CCCTB, problems remain. Despite the fact that the profit allocation rules in the CCCTB partly allocate the tax base on the basis of sales by destination, when it comes to defining taxable presence through a permanent establishment, the CCCTB rules are not different from those applying internationally (which only reflect the needs of the traditional economy and are primarily based on a physical presence). For illustration, a company that is not incorporated in the EU

[28] Projections for these developments can be found inter alia in the Statista Digital Market Outlook, UNCTAD (2017a, 2017b) and OECD Digital Economy Outlook (2017).
[29] One proposal of a directive and two of regulations

and does not have an affiliate or a permanent establishment in an EU country, will not be subject to tax under the CCCTB rules, even if it carries out significant economic (digital) activity in the EU. Similarly, if it has sales in all Member States but has a physical presence in only a few Member States, the consolidated profit will be allocated via a formula only between those Member States where it has a physical presence, at the exclusion of other Member States, even though the company carries out digital activities in their jurisdictions (see box in Annex 6).

A second issue not solved by the CCCTB concerns cases where sales by destination do not capture well the economic activity of the company (and neither do tangible assets or employment). This concerns above all business models such as advertising models that operate through indirect revenue generation. They offer their services to users for free and make their revenues by selling (targeted) advertising space displayed to users. An example could be a company group that operates, say, a social network site and makes revenues from advertising. It has subsidiaries (i.e., it is tax resident) in all Member States, but they operate with few tangible assets and employees. Further, all its advertising revenues stem from companies resident in A or in third countries. The company has a dense user network in all Member States and uses the user data that it collects to target and display advertisements in all Member States from which its users access its website. The formulary apportionment under the CCCTB, by considering only assets, labour and sales by destination, would allocate (almost) the entire tax base of the company group to Member State A.

Regarding, tax avoidance opportunities, the CCCTB does help closing important profit shifting possibilities, but it does not address the artificial avoidance of permanent establishments. This is because, as explained above, the CCCTB as proposed in 2016 follows the definition of permanent establishment currently applied internationally.

The legally-binding anti-avoidance rules that have been agreed at EU level are not expected to deal comprehensively with the specific challenges of the digital economy. Most notably, the new Controlled-Foreign Company rules in the Anti-Tax Avoidance Directive only address situations where the ultimate parent company is a taxpayer in the EU. The Commission issued a Recommendation in 2016 on Tax Treaty issues,[30] which encourages Member States to implement the new provisions on permanent establishments, as agreed in the BEPS Action 7 (see discussion below). It includes ensuring that the permanent establishment status cannot be circumvented through 'commissionaire arrangements' or similar structures, and that core activities do not benefit from the exception for preparatory/auxiliary activities. However this Recommendation does not address comprehensively the avoidance of permanent establishments by the digital economy. Moreover a Recommendation is not a legally binding act and Member States are free to decide whether or not to implement it.[31]

[30] Commission Recommendation (EU) 2016/136 of 28 January 2016 on the implementation of measures against tax treaty abuse (OJ L 25, 2.2.2016)

[31] Statistics on the implementation of the recommendation are not yet available.

OECD level

The final Action 1 report (OECD, 2015a) discusses the broader direct tax challenges raised by the digital economy. It examines three reform options: extending the definition of permanent establishment to cover also significant economic presence, a withholding tax on digital transactions and a so-called equalisation levy. The report does not issue any recommendation. In March 2017, the G20 Finance Ministers requested that the OECD's Task Force on the Taxation of the Digital Economy deliver an interim report on the implications of digitalisation for taxation by April 2018. The OECD has recently published this interim report on the taxation of the digital economy and presented it to the G20 Finance Ministers at their meeting in March 2018 (OECD, 2018). A final report is due in 2020, with a progress update in 2019.

Although reaching a consensus on such a complex topic is difficult, the OECD has intensified its work to tackle the tax challenges arising in the digital economy. Discussions at OECD level are essential in order to address at a global level a challenge which is fundamentally a global one. The main elements of the on-going OECD work on digital taxation seem largely consistent with those of the Commission. While the final outcome of the OECD discussions is uncertain, the recently published interim report (OECD, 2018) suggests that the focus could be on the comprehensive solution. As explained in the final Action 1 report (OECD, 2015a), the broader tax challenges for policy makers relate in particular to nexus, data, and characterisation for direct tax purposes. At this stage, the OECD work on a comprehensive solution remains quite open, but clearly includes work on revised permanent establishment and profit allocation rules. At the same time there appears little appetite for taking any interim measures to bridge the time until comprehensive solutions are agreed and implemented.

Relevant work on anti-abuse rules initiated by the OECD has started to bear some fruits, but there remain important gaps. The potentially most relevant areas are in the proposed amendments to the definition of permanent establishment (BEPS action 7) and to transfer pricing rules (BEPS actions 8-10). Article 5 of the OECD Model Tax Convention has been amended to ensure that, where the activities of an intermediary result in the *regular* conclusion of contracts to be performed by a foreign enterprise, that enterprise should be considered to have a sufficient taxable nexus in that country.[32] The changes proposed under Action 7 limit the exemptions to activities that are of a *preparatory or auxiliary* character i.e. businesses can only qualify for these exemptions if the activity in question is not a core part of their business model. So a large warehouse maintained by online sales business for the purpose of storing and delivering goods sold by that business would constitute an essential

[32] "For example, where the sales force of a local subsidiary of an online seller of tangible products or an online provider of advertising services habitually plays the principal role in the conclusion of contracts with prospective large clients for those products or services, and these contracts are routinely concluded without material modification by the parent company, this activity would result in a permanent establishment for the parent company." (OECD, 2015b).

part of the sales and distribution function of that business. As a result the warehousing function would no longer qualify for the preparatory and auxiliary activity exemption.

The revised permanent establishment rules remain grounded in the concept of physical presence and target above all abuse structures used by online retailers of physical goods. They do not offer comprehensive solutions to the avoidance of permanent establishments by the digital economy. Indeed, the amendments to the permanent establishment rules target primarily artificial avoidance arrangements that have been used by online retailers of physical goods that still require some local physical presence, for example for storage and transport of physical goods (Avi-Yonah and Xu, 2017, BEPS Monitoring Group, 2015[33]).

In addition, there also remain implementation gaps. The amendments are implemented either in the course of bilateral tax treaty negotiations or through the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (known as the 'Multilateral Instrument'), but some countries have reserved against these. However, the amendments are not binding and their effective implementation will largely depend on national legislation and revisions to bilateral treaties. An uncoordinated approach is unlikely to lead to a break-through. Many countries will not have the incentive to agree on a revision of rules if they cannot be assured that other countries will implement similar reforms. Moreover, some consider that the lack of properly defined mechanisms in the new transfer pricing guidance may increase legal uncertainty regarding the taxation of international business models (Olbert and Spengel, 2017).

In the context of the anti-Base Erosion and Profit Shifting Project, harmful tax practices have been addressed inter alia through action 5 and this is expected to reduce tax planning opportunities, notably those involving intellectual property boxes. The overwhelming majority of existing beneficial tax regimes for intellectual property were abolished or amended in line with the 'nexus approach', both at EU and at global level (through the Inclusive Framework).[34] This is expected to reduce tax planning opportunities by transferring intellectual property to low tax jurisdictions.

Measures to prevent tax treaty abuse have started to be widely implemented. More than 70 jurisdictions signed the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (known as the 'Multilateral Instrument'),[35] whereby about a third of existing tax treaties will be aligned with the minimum standard on action 6. Treaty abuse is relevant given the increased ability to choose the location of resources (e.g. intellectual property) that are key to digital activities.

Unilateral actions by Member States

[33] See comments published by the BEPS Monitoring Group on Action 7 published at https://bepsmonitoringgroup.wordpress.com/category/action-7/

[34] All EU Member States except for Cyprus are members of the Inclusive Framework.
In the EU, the amendment to the Directive on the automatic exchange of information has made the exchange of rulings legally binding.

[35] All EU Member States have already signed except for Estonia, which has expressed its intention to sign the Multilateral Convention.

In the absence of effective responses to the tax challenges posed by the digitalisation of the economy, it is likely that more and more Member States, but also third countries, will take unilateral action . In its conclusions of 5 December, the Council observes that *"the speed at which the economy is digitalising and the absence of international consensus on the modernisation of the rules of distribution of taxing rights gives rise to unilateral actions, leading to an increase of double taxation disputes between Member States and thereby undermining the Internal Market*".[36] Going forward and taking into account its dynamic growth, the digital economy will not contribute proportionally to the tax revenues of Member States when compared to the traditional economy. If the current trend continues, public budgets will likely suffer to an extent that will put increasing pressure on policy makers to act. The unfairness of the situation would lead to increased pressure from citizens and traditional businesses. In addition, to ensure compliance with EU fiscal rules, governments will need to search for compensatory measures. Therefore, it is also assumed that the trend towards unilateral solutions will continue in the absence of solutions coordinated at international level. An overview of unilateral measures implemented or planned in EU Member States and third countries can be found in section 9.1 and Annex 6.

In the absence of action, the digital single market will not be able to deliver on its potential. A digital single market can only deliver on its potential if fair competition is guaranteed, including equitable tax treatment for all companies. As larger parts of the economy become digital, they will have to shoulder a corresponding part of the tax burden needed to finance the public services on which they rely, such as educational or the judicial system. Yet this is not the case at this moment and is likely to aggravate if the situation remains unchanged.

To sum up, no significant progress has been made, or is expected within the next couple of years, in finding structural and comprehensive solutions to addressing the challenges of taxation brought about by the digitalisation of the economy. Some progress has been made in addressing specific abuse channels, notably in relation to beneficial regimes targeting intellectual property. Proposed revisions to permanent establishment rules target primarily avoidance structures employed by online retailers of physical goods and fail to establish a nexus based on digital presence instead of physical presence (Olbert and Spengel, 2015, and Blum, 2015).

5.2 What are the available comprehensive policy options?

Table (3): Summary of retained and discarded comprehensive policy options

[36] ECOFIN Council conclusion, 'A' Item note 15175/17

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 permanenent establishment and profit allocation rules)	Intra-EU - narrow scope: Adjustments to the CCCTB rules	Revision of permanenet 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 wihtin 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 treates with third countries to reflect the new rules. The Commission would seek a mandate to negotiate the revisions vis-a-vis third countries, where this is of particular interest.	Option 3
Design options for a digital permanenet establishment	Include the online sale of goods		Option a1
	Exlcude 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

5.2.1 Options for fundamental reform

5.2.1.1 Destination-based tax

The destination-based cash-flow tax was identified in the report of the Expert Group on Digital Economy (2014) as a possible holistic option to address the challenges of taxing the digital economy. This tax has two distinct features. First, the cash-flow element provides that all revenues and expenditures are accounted for at the time as the related payments are executed. This includes expenditures for capital investments which hence would become immediately expensed, instead of being deductible over time through depreciation allowances. Computing the tax base on a cash-flow basis is not essential to address the challenges of taxing profits from digital business models. Second, the destination principle implies that the jurisdiction with the right to tax is the one of the location of the consumer of the goods or services sold. This second feature implies a right to tax in jurisdictions where the customers of companies are located, irrespective of whether the company has any taxable presence in that jurisdiction (a subsidiary or a permanent establishment). It would thus be a far-reaching change to the (international) corporate tax system.

There are various ways to implement the destination principle and one possibility would be to adjust rules within the CCCTB. One possibility is to implement a destination-based tax more narrowly within the remits of the CCCTB. It would involve adapting the permanent establishment rules in the CCCTB to the digital economy. In addition, the formula would be adjusted to be exclusively based on sales by destination.

5.2.1.2 Unitary tax

The tax would apply on worldwide profits, allocated on the basis of where the turnover is generated. Each EU Member State would get a share of the world profit of the digital companies that corresponds to the share of turnover generated in its country. To be effective the tax would also require the introduction of a new digital tax nexus to levy and collect the tax in cases where a company carries out significant digital activities in a country. The determination of what constitutes such presence would need to consider also the amount of turnover generated in the country.

The unitary tax would apply in replacement of the corporate income tax for companies that undertake mainly digital activities. This would require defining the conditions under which a company would be considered to carry out mainly digital activities. As such it would require a careful assessment of firms' operations to determine under which framework they fall. The rate would be national corporate income tax rates, but could be set at levels that differ from the currently applicable rate, at the discretion of Member States. For companies not established in the Member State that would have some taxing right under the unitary tax system, the system would most likely require the use of a one-stop shop in order to enforce the tax.

5.2.1.3 Residence tax base with destination tax rate

The taxing right would remain with Member States where companies have their tax residence, according to current rules. Also, the rules for computing the tax base in the Member State of tax residence would continue to apply. Subsequently the tax base would be apportioned on the basis of where the turnover is generated; and for each of such portions the rate of the country where the turnover is generated would apply. Profits would still be declared and taxed (albeit at a weighted average of the rates where the company generates its turnover) in the Member State of tax residence.

The system would apply in replacement of the corporate income tax system for companies that undertake mainly digital activities. As such it would require a careful assessment of firms' operations to determine under which framework they fall. Different from the other comprehensive options, a new nexus definition would not be necessary. The rate would vary depending of the origin of the turnover. It would require the use of a one-stop shop and the creation of a monitoring authority at the EU level.

5.2.2 Options for realigning the rules within the current international tax framework

These options revolve around amending the permanent establishment and profit allocation rules. They differ mainly with respect to their scope, and in two ways. The first

distinction is with regard to company size, i.e. whether the option applies only to the largest companies or has a broader scope. The second distinction is with regard to the territorial application, i.e. whether the option applies only intra-EU or also vis-à-vis third countries. Section 5.2.2.4 discusses a number of design options that apply to these options.

5.2.2.1 Realigning profit allocation rules with value creation intra-EU

These options would override the double tax treaties between Member States but would have no effect in relation to third countries, except possibly those not having a double tax convention with a given Member State.

(a) Narrow scope: Amend the rules for the Common Consolidated Corporate Tax Base (Option 1)

Rules that trigger a digital permanent establishment would be added to the CCCTB Directive. Once agreed, the CCCTB would provide a competitive, fair and robust framework for taxing companies in the single market. A comprehensive option would then be to amend the current proposal to better capture features of the digital economy. A digital permanent establishment of an EU company would be triggered in a Member State and be subject to corporate income tax on its digital activities once a set of conditions is met. This option would , in principle, be broadly in line with the draft European Parliament amendment on the CCTB and the CCCTB proposals adopted by the Committee on Economic and Monetary Affairs that propose to introduce a digital presence concept in the CCTB. As the CCCTB applies mandatorily to groups of companies with more than EUR 750 million in global turnover, the new rules would also mainly apply to these companies. Since the CCCTB cannot override double tax treaties between Member States and third countries, it would not impact the taxation of companies unless they are already tax resident in at least one Member State.

Companies that exceed certain digital activity thresholds in a given Member State would trigger a digital permanent establishment in that Member State. The digital activity thresholds could be based on revenues from relevant digital services, number of users and/or online contracts concluded. Any EU company (or third country company where there is no applicable double tax treaty[37]) would trigger a digital permanent establishment in a Member State, and therefore be subject to taxation on its digital activities, if it exceeds certain activity thresholds in a tax year, such as:

- revenues from digital services in a Member State exceeds EUR [x];
- number of active users of the digital service in a Member State exceeds [x];
- number of online contracts concluded exceeds [x].

The proxies identified, such as number of active or registered users, number of of clicks or contracts, can be identified and linked to a Member State using, for example, the prevailing IP address of the user, local domain names, language or local platform criteria.

[37] See explanation in relation to third countries in the next subsection.

In a second step under this option, and for application at the consolidation level, the use of the formula currently proposed to attribute profits could be revisited. Options for adapting the apportionment formula range from making the formula entirely based on sales by destination to adding a fourth factor to the existing CCCTB formula that would capture digital activities. This factor could be measured by data such as the number of users or the number of page visits.

(b) Wide scope: Directive on digital permanent establishment (plus adapted CCCTB)(Option 2)

This option revolves around a proposal for a standalone directive establishing common EU rules for a digital permanent establishment and its profit attribution. The standalone EU Directive would establish a common system for a digital permanent establishment and principles for allocating profits to digital activities of such permanent establishments. New rules on a digital permanent establishment would take the same form as outlined above for the CCCTB. It would override double tax conventions between EU Member States and also apply in cross-border situations vis-à-vis third countries that do not have a double tax convention with a particular Member State. Double tax conventions with third countries would continue to apply.

A Member State's tax authorities also need to be able to attribute profits to permanent establishments in that state to reflect the digital activities therein. This step follows the establishment of a taxing right in a Member State through changes to the definition of the permanent establishment. Therefore, the Directive would also set out the principles for how profit would be attributed to the digital permanent establishment.

The fundamental principle for profit allocation should remain that taxation takes place in the jurisdiction where value is created. Considering that in the digital economy, a significant part of the value of a business is created where the users are based and data is collected and processed, the directive would set out criteria specifically targeted at attributing profit to a digital permanent establishment. For example, these criteria could be based on criteria such as:

- the users' engagements and contributions to the development of a platform;
- the data collected from users in a Member State through a digital platform;
- number of users; and/or
- user-generated content.

The standalone directive rules would then be included in the CCTB and the CCCTB (as it was done with the provisions of the Anti-Tax Avoidance Directive). In contrast to the narrow CCCTB option, the scope of this directive would be wider, applying generally and not only to groups of companies above the EUR 750 million turnover threshold.

5.2.2.2 Realigning profit allocation rules with value creation intra-EU and vis-à-vis third countries

This option expands the territorial scope of the standalone Directive to apply not only in intra-EU situations but also between Member States and third countries. This would oblige Member States to renegotiate their existing double tax conventions with third countries in accordance with the rules of the Directive. As with the intra-EU solution, it would also lead to an adaptation of the CCCTB rules to be consistent with the new rules.

5.2.2.3 Realigning profit allocation rules with value creation intra-EU and recommendation to change rules vis-à-vis third countries (Option 3)

This option would supplement the standalone directive that applies in intra-EU situations (as set out in section 5.2.2.1) between Member States with a recommendation to Member States to amend their double tax treaties with third countries setting out the proposed changes to the double taxation treaties in relation to Article 5 (Permanent Establishment) and Article 7 (Business Profits) of the OECD Model Tax Convention. This recommendation would be addressed to Member States, but it could also influence the debate at international level on addressing the challenges of taxing the digital economy. To complement the recommendation, the Commission could, without prejudice to the EU and Member States' competences, assist Member States in the negotiation of these provisions with selected third countries in a coordinated manner at the Union level, if authorised to do so by the Council.

5.2.2.4 Design options: Type and level of digital activities

For all options in this category, there are some important design choices to be made concerning the type and level of digital activities reflected in the new permanent establishment rules. For the type of activities, the two key alternatives considered are to include all types of digital activities, irrespective of whether the activity consists in the supply of a physical good ordered online, or to focus on digital activities that are services.

Option a1: Including the online sale of goods.

Option a2: Excluding the online sale of goods.

For the digital activity thresholds, two different types of metrics have been discussed: a threshold on revenue earned from digital activities in the jurisdiction or a threshold on the activity by users in the jurisdiction (for example, measured by the number of users or number of online contracts). A key question is whether to require that these thresholds apply cumulatively, so that a permanent establishment is triggered only if all thresholds are surpassed, or alternatively, so that it suffices to surpass one or a subset of thresholds.

Option b1: Operating the different thresholds alternatively (i.e. 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 b2: Operating the different thresholds cumulatively. This would result in a fairly narrow scope as the test would fail as soon as one criterion is not satisfied.

Option b3: Operating the revenue threshold in combination with other thresholds, which can apply alternatively.

Further, the level of each digital activity threshold needs to be determined.

5.3 Policy options discarded at an early stage

Fundamental reforms, such as destination-based cash flow tax, unitary taxation and residence tax base with destination tax rates, would not only fundamentally challenge the international tax system, but they also have the potential to address the problems at their roots. They however do not yet seem to be a priority of Member States at this stage, who prefer to adapt the current system. In its conclusions of 5 December 2017, the Council underlines instead that *'a globally accepted definition of permanent establishment and the related transfer pricing and profit attribution rules should also remain pivotal when addressing the challenges of taxation of profits of the digital economy'*.[38]

As such, it shall be noted that fundamental reforms would not square with the CCCTB proposal. They imply the need to implement a separate tax system for the digital economy (or to depart from the CCCTB provisions if the fundamental reform were to be applied to the entire economy).

Even though both unitary tax and residence-tax base with destination tax rate have in principle good economic properties, they are discarded at this stage. The unitary tax raises considerable implementation issues, as it challenges today's international corporate tax system in a fundamental way. Making tax revenue collected in one Member State directly dependent on tax rates set by other countries – the option of a residence tax base with a destination tax rate - would pose important legal challenges, notably issues of equal treatment within Member States. It could also increase tax competition on the definition of the taxable base so as to attract more companies. Furthermore, neither option is coherent with the CCCTB and would, if applied only to companies in the digital economy, require Member States to operate an additional corporate tax system, next to the CCCTB and their national tax systems.

Despite some strong features of the destination-based (cash-flow) tax, only the option of implementing the destination-principle within the CCCTB is retained. Numerous contributions in the literature have shown that the destination-based (cash flow) tax can be both an efficient tax and effective in addressing tax planning issues (see Annex 9 for a summary).[39] However, as with the other discarded options, implementing the destination-based tax in full, would not be coherent with the CCCTB and require Member States to operate an additional corporate tax system, next to the CCCTB and their national tax systems. For this reason, implementing a separate destination-based tax for digital companies is not

[38] ECOFIN Council conclusion, 'A' Item note 15175/17
[39] See for example Devereux and de la Feria (2014),

retained. Only the option of implementing the destination principle within the CCCTB will be examined.

Obliging Member States to apply the new permanent establishment and profit allocation rules of the standalone Directive also vis-à-vis third countries, thereby requiring them to break their contracts with third countries, is not a viable option. This option would also cover digital activity in the EU of companies that are currently not tax residents anywhere in the EU. Once fully implemented, it would therefore provide for a more level playing field between EU companies and companies of third countries. As such, it would also provide for a stronger, more positive impact on public finances and be overall fairer. However, it would likely contribute to a prolonged period of uncertainty for companies. As long as double tax conventions are not re-negotiated, companies would face the uncertainty of which rules a Member State would follow: the rules in the Directive or those in the relevant double tax convention. Above all, introducing an obligation on Member States that affects their contracts with third countries is not a realistic option. Therefore this approach is rejected.

6 WHAT ARE THE IMPACTS OF THE COMPREHENSIVE POLICY OPTIONS?

6.1 Realigning profit allocation rules with value creation intra-EU - Options 1 and 2

6.1.1 Option 1 - Narrow scope: Common Consolidated Corporate Tax Base adapted to the digital economy

This option implies that the solution would affect only companies that apply the CCCTB. Specifically, only companies with a global consolidated turnover above EUR 750 million would be subject to the new rules whereas other companies would apply the new rules only if they elect to do so. As a result, the new rules on permanent establishment and allocation of profits, would not apply uniformly to all businesses. Moreover, all Member States would have to operate two very different sets of permanent establishment rules.

Examples

Company X, established in Member State A and with a global consolidated turnover above EUR 750 million and thus falling under the mandatory scope of the CCCTB, carries out relevant digital activities in Member State B. The new rules on a significant digital presence would trigger a permanent establishment of company X in Member State B. It is envisaged that under new profit allocation rules in the CCCTB part of the profits of company X would be allocated to Member State B.

Company Y, established in a Member State and carrying out similar digital activities but with a global turnover below EUR 750 million would not be subject to the new rules. It would however have the possibility to apply the CCCTB on a voluntary basis.

The new rules would never apply to a company Z established outside the European Union even if performing digital activities in a Member State. Moreover, in the absence of an agreement on the CCCTB, the new rules would not apply to any company, whether it falls under the mandatory scope or opts to apply the rules of the CCCTB.

(a) Integrity of the single market

The implementation of the CCCTB adapted to the digital economy would limit the risk of additional distortions from unilateral actions, but not completely eliminate it. The adapted CCCTB will offer a solution for the largest digitalised businesses and as such relieve some of the pressure for Member States to come up with national measures. However, as the scope of the CCCTB is relatively narrow - due to the high global turnover threshold for the mandatory scope – there remains a risk that unilateral measures are taken to complement the new rules under the CCCTB.

Furthermore, introducing a solution that is contingent upon application of the CCCTB introduces new distortions in the single market. Companies that apply the CCCTB would be subject to the new rules for a digital permanent establishment, whereas companies with digital activities and not subject to the CCCTB would not be captured by the new digital permanent establishment rules. In this scenario, it could well be that a company outside the CCCTB pays taxes in only one EU Member State whereas the same company would pay taxes in all EU Member States if it applied the CCCTB. Apart from introducing new distortions between companies within and outside the CCCTB, this feature would also make the decision of whether to opt into the CCCTB system more complicated than before. This would possibly impede the attractiveness of the CCCTB. In the amendments made in the draft European Parliament reports adopted by the Committee for Economic and Monetary Affairs on the CCTB and CCCTB proposals[40], the introduction of new nexus rules for digital presence is combined with a phase-out of the mandatory threshold, which would mean the new rules would apply generally and not only for a subset of companies.

(b) Sustainability of public finances

The impact on public finances is primarily about contributing to the long-run sustainability of the corporate tax system. At first, the impact on public finances is likely to be small. This is simply due to the still relatively small contribution of the digital economy to the economy. UNCTAD (2017c) estimates it to be on average 4.3% of value added in the EU, but there is no consensus estimate (see footnote 42). In addition, average corporate income tax revenue is small compared to other taxes, amounting to only 2.5% of GDP in 2015 (European Commission, 2017a). However, due to the continued trend towards digitalisation and the expectation that the traditional economy will also become more digitalised, the measure is expected to contribute to the sustainability of the corporate income tax system. As the

[40] DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION on the proposal for a Council directive on a Common Corporate Tax Base (COM(2016)0685 – C8-0472/2016 – 2016/0337(CNS)).

corporate income tax also serves as a backstop to personal income tax, there is likely a wider impact on public finances.

A significant increase in tax base at EU level is not expected, but there will likely be a certain amount of reallocation of tax revenues across Member States. The main effect will be one of better-aligned locations of value creation and taxing rights. At least at first, a significant increase in tax base at EU level, compared to the baseline scenario, is not expected. As the adapted rules would address intra-EU situations, it does not directly tackle issues where a disproportionate amount of tax base is attributed to third countries.[41] Reallocation of tax base would occur in situations where a Member State is a significant marketplace for digital companies but none of the digital activities are booked for tax purpose there, because according to current rules they are centralised in one or a few other Member States. Thus the Directive would address situations where there is a certain level of digital activity, but a lack of physical presence prevents Member States from taxing it. It would also address situations where there is currently a permanent establishment in a Member State but that permanent establishment is not taxed on the profits from the digital activity in that Member State, because the activity does not involve, or only to a disproportionate extent, any of the three factors, i.e. tangible assets, labour and sales by destination, considered in the profit allocation formula of the CCCTB.

Due to the new digital permanent establishments created, it is expected that companies would find it more difficult to do tax planning, increasing tax revenue overall. As companies have less control over where their activities are taxed it would be more difficult to artificially attribute profits (for example through artificial avoidance of permanent establishment rules) to jurisdictions where they benefit from lower taxation.

(c) Social fairness and level playing field among business

The revision of the CCCTB rules would ensure that digital activities are effectively captured for tax purposes and remove certain competitive distortions between the largest companies. It should reintroduce a level playing field between digital and less digital companies applying the CCCTB but also between EU companies active domestically and those operating remotely, which is a pre-requisite to the development and growth of digital start-ups and scale-ups in the EU. By doing so, the adapted CCCTB would better ensure that similar economic activities face similar tax obligations, providing for a more level playing field. It would also secure the corporate tax base, preventing shifting the tax burden on other bases and economic agents.

Due to its limited scope, it is difficult to implement a structural solution only through the CCCTB, but it would nonetheless improve the perception of social fairness. In effect, there would be two completely different sets of rules on taxable presence (and profit allocation) for companies falling under the mandatory application and those outside. This

[41] In other words, without revision of tax treaties with third countries, one would not expect additional tax base from activities of foreign companies that under current tax treaty rules are not considered to have a taxable presence in at least one Member State.

could make it harder to seek structural solutions internationally. It may also raise new competitive distortions (Schön, 2017). Nonetheless, by ensuring that large companies with significant digital activities do not escape their taxes in the EU, this adapted CCCTB would improve the perception of social fairness in the tax system.

(d) Fight against aggressive tax planning

First, aggressive tax planning through artificial avoidance of permanent establishment would be reduced. The new CCCTB rules for a digital permanent establishment would establish a taxing right based one significant volume of activities in the scope of the proposal (to be defined). Key principles for localising these activities could be the destination of a service – that is, where it is consumed – and the location of the user who has contributed to the value creation. Both are difficult for the business to manipulate (and with little interest for users to do so). As a result, the digital permanent establishment rules would be effective and difficult to avoid.

Second, the new rules would limit the emergence of new opportunities for aggressive tax planning. To the extent that the adapted rules pre-empt Member States pursuing different national responses to taxing digital activities, it would also be effective in preventing additional inconsistencies between the different approaches. Such differences would only further incentivise businesses to engage in aggressive tax planning.

(e) Economic impacts

The macroeconomic impacts of revised CCCTB rules would be small. This is mainly because the number of affected companies is small: these are companies with global consolidated turnover of more than EUR 750 million with significant digital activities in some Member States where they do not have a permanent establishment according to current rules.

The negligible macro-economic impact is confirmed in simulations on the application of different formulas in the CCCTB. To simulate the effect, the CORTAX model – a computable general equilibrium model – was used (see Annex 4 and 10 for the methodological details). Four alternatives to the currently proposed profit allocation formula have been modelled. All formulas use the assumption that digital firms represent 5% of the economy.[42] In the first three formulas, a 'digital input factor' was added to the formula,

[42] The estimation of the size of value added from digital products is challenging and no agreed-upon methodology is yet available. Estimates depend on the employed definition of digital economy, for which there is no broad consensus. The Boston Consulting Group combines data from the OECD and national statistical agencies to estimate an average direct contribution of the digital economy to GDP in G20 countries of 5.1%, with a maximum in UK of 10.4% and a minimum in Indonesia of 1.4%. Alternative estimates from consulting firms and professional associations (like The Internet Association, which represents the interests of many giant companies: Google, Amazon, Airbnb, Salesforce, and many more) point to about 6% of GDP in the U.S. coming from purely Web-based businesses. The OECD Internet Economy Outlook 2017 estimates that 5.4% of global value added in the OECD area in 2015 directly comes from information and telecommunication (ICT) products although this sector encapsulates a wide array of activities going beyond web companies while possibly missing significant major digital companies (for instance, Amazon is listed under the SIC code 5961 which is not included in the OECD definition of ICT). UNCTAD (2017c) estimates that the value added for the EU amounts

affecting the apportionment of profits for the 'digital companies' representing 5% of the economy. The location of digital firm activity by country was proxied using total page views, in relative terms, for the top 50 web sites across the EU. The fourth formula alternative models a destinations-based CCCTB by putting all weight for all types of companies on sales by destination. As the detailed results presented in Table (1) of Annex 10 show, there is hardly any impact at the macro-level, irrespective of the formula alternative applied.

(f) Administrative burden and compliance costs

The adapted CCCTB would create limited additional administrative burden for companies and administrations compared to the current CCCTB proposal. Additional information items are required, notably concerning the proxies identified to trigger a digital permanent establishment (for example, number of active users, local domain names, IP addresses, location of the accommodation, transport, or entertainment services provision), as well as for any new factor added to the profit allocation formula. In some cases, these proxies are already disclosed and used to split revenues in the current financial reports audited by statutory auditors. Overall, only a small increase in the time spent on record keeping, on the preparation of tax computation and on dealing with tax authorities is expected.

Compared to the baseline, in which national administrations would increasingly pursue national solutions, the compliance burden for companies subject to the new CCCTB rules should be lower overall. To the extent that national measures would be deemed necessary to capture activities outside the scope of the proposed adapted CCCTB rules, the compliance and administrative burdens should be broadly the same as in the baseline. However, a precise comparison with the baseline scenario is difficult as the assessment would depend on which measures would have also been taken in the baseline.

(g) Coherence with other Commission policies and global tax agenda

A digital CCCTB would fall within the ambit of the Commission's initiatives for fairer taxation. It would contribute to the elimination of obstacles which create distortions that impede the proper functioning of the single market. On this premise, it is largely complementary to the EU-level legislation in company law and broadly fits with projects such as the digital single market and the several initiatives in tax transparency, the exchange of information and anti-money laundering.

A solution focussing exclusively on revisions to the CCCTB would have limited potential to have a positive impact on the global tax agenda. Effectively, the EU would apply two completely different sets of rules on taxable presence (and profit allocation) for companies falling under the mandatory application and those outside. This would make it harder to seek structural solutions internationally.

---

to 4.3%. Taking stock of the lack of a consensus definition of the digital economy and absent any data more dependable than these, 5% looks like a reasonable estimate that is employed in the CORTAX simulations.

6.1.2 Option 2 - Wide scope: Directive on digital permanent establishment (plus adapted CCCTB)

The separate Directive would have a wide scope. Most notably, the mandatory global turnover threshold of EUR 750 million applicable to the CCCTB would not apply. In addition, the adoption of the directive would not require Member States to agree on the new rules in a package with all other rules laid down in the CCCTB. This could make for a faster adoption of the new rules.

Example

Both companies X and Y from the previous examples (Option 1), established in Member State A – and providing digital services would in principle fall under the scope of the directive, irrespective of their global turnover. As for Option 1, the question whether the new rules lead to an additional digital permanent establishment in Member State B would depend on their respective economic presence (i.e., whether it exceeds the applicable digital activity thresholds). As for option 1, the new rules would not apply to company Z established outside the EU but performing digital activities in Member State B assuming that the applicable tax treaty between Member State B and country Z overrules Member State B's new digital permanent establishment rules.

a) Integrity of the single market

Due to its general scope, the Directive would have a stronger positive impact on the integrity of the single market than the narrower Option 1. The revision of the rules would ensure that digital activities are effectively captured for tax purposes. Once agreed, it would remove incentives for unilateral action at Member State level. It would reintroduce a level playing field between digital and less (or non-)digital companies active domestically and those operating remotely, and not only for the largest players. By containing the risk of future unilateral actions, Option 2 would ensure a single and certain framework for the allocation of taxing rights and allocation of profits across EU Member States, which would support the development and growth of digital start-ups and scale-ups in the EU.

b) Sustainability of public finances

Implemented together, the changes in permanent establishment and allocation rules would grant Member States taxing rights and tools for profit attribution that reflect digital presence. As such it would correct the existing misalignment of taxation and value creation and contribute to a fairer distribution of tax revenue within the EU.

Due to the wider scope of this option and its better effectiveness in fighting aggressive tax planning the impact on public finances is expected to be somewhat larger than for the narrower Option 1. The CCCTB already captures a large share of the turnover by multinational companies and is likely to capture those largest digital players that are most

relevant for public finances in individual Member States.[43] However, the wider scope option is considered to be more effective in the fight against tax planning (see (d) below), contributing to additional tax revenue from other companies (not falling under the mandatory scope of the CCCTB).

(c) Social fairness and level playing field among businesses

Figure (3) below illustrates for 5 sample companies the mismatch between the location of their users and the current place of taxation. It clearly demonstrates the current misalignment between profit tax base and places where users contribute to the value of the services offered. The maps are based on data of five sample companies. Web visits are used here as proxy for the geographical location of users and their contribution to the value creation process of web services. They are contrasted against the location of profits of these five companies.

Figure (3): Comparison of the geographical allocation of web visits (left-hand side) and profit (right-hand side), for five large web companies

Source: European Commission Joint Research Centre, based on Bureau van Dijk Orbis database (2016) and SimilarWeb (2016, www.similarweb.com)). Legend: geographical allocation of web visits (left-hand side); profits (measured as EBITDA = Earnings before interest, taxes, depreciation and amortisation, right-hand side).

The revision of the rules would ensure that all digital activities are effectively captured for tax purposes and remove competitive distortions. The additional criteria suggested for profit attribution in the Directive are targeted to capture more value where the users are based and data are collected and processed. By doing so, the adapted rules would better ensure that similar economic activities face similar tax obligations. As said above, this would reintroduce a level playing field between digital and less (or non-) digital companies, as well as between firms active only domestically and those operating remotely. It is also necessary to create fair competition between small and large players, which is a pre-requisite to the development and growth of digital start-ups and scale-ups in the EU competing with large multinational

[43] See discussion on the impact on public finances for Option 1 above.

players. It would also secure the corporate tax base and prevent undue tax burden on other bases and economic agents.

By ensuring that large companies with significant digital activities do not escape their taxes in the EU (see next subsection), the directive would improve the perception of social fairness in the tax system. It can be expected to have a positive impact on taxpayer morale and improve trust in the functioning of the tax systems more generally.

(d) Fight against aggressive tax planning

In addition to the positive impacts of the narrow scope, which would remain valid, under the wide scope, companies would have less possibilities to shift profits out to third countries. As it will become significantly more difficult to artificially attribute profits to some specific jurisdiction, it will also become more difficult for companies to shift profits outside the EU through treaty shopping. This practice is wide-spread and involves shifting profits to EU jurisdictions that do not apply source taxation on outbound payments.

(e) Economic impacts

For the same reasons as for Option 1, the economic impacts are considered to be small but could become larger over time as the digital economy grows. Still, the positive economic impact is arguably larger than in Option 1. This is due to the wider scope of Option 2, which results in an expected more effective preservation of the single market, as it offers a more structural solution (preventing additional unilateral measures) and implies one single system within the EU for permanent establishment rules. Moreover, this option is considered to be more conducive to arriving eventually at a global solution, which would be the one best suited to ensuring a level playing field within the EU and vis-à-vis third countries.

(f) Administrative burden and compliance costs

In the first instance, the adapted rules would create an additional compliance cost for companies and administrative burden for administrations. Additional compliance activities are required in relation to new permanent establishments triggered in Member States where companies had not been taxpayers before. This implies dealing with additional tax administrations, though this can be avoided by opting for the CCCTB.[44] In addition, companies also need to collect and record information on the proxies identified to trigger a digital establishment and allocate profits to it (for example, number of active users or location of the accommodation, transport, or entertainment services provision). The vast majority of companies with an online user base have access to this information and some of these proxies are already disclosed and used to split revenues in the current financial reports audited by statutory auditors. Overall, only small increases are expected in the time spent on record keeping, on the preparation of tax computation and on dealing with tax authorities.

[44] The administrative burden and compliance costs of the CCCTB have been described in the impact assessment of the CCTB and CCCTB (see *SWD(2016) 341 final*).

Compared to the baseline, in which national administrations would increasingly pursue national solutions, the compliance burden for companies subject to the new rules should be lower overall. The requirements would be harmonised in the EU whereas they can critically differ across Member States if national solutions are implemented in an uncoordinated way. Thus in comparison to a situation where countries increasingly implement national measures to tax digital activities, the compliance burden for companies in the digital economy would be reduced.

(g) Coherence with other Commission policies and global tax agenda

The revised rules on digital permanent establishment and profit attribution within the new Directive and the adapted CCCTB would fall within the ambit of the Commission's initiatives for fairer taxation. It would contribute to the elimination of obstacles which create distortions that impede the proper functioning of the single market. On this premise, it is largely complementary to the EU-level legislation in corporate taxation and broadly fits with projects such as the digital single market and progress achieved in the areas of tax transparency, exchange of information and anti-money laundering.

Offering a pragmatic and flexible approach is an important aspect if the EU wants to make progress and thereby also push progress internationally. To do so, the proposal for the long-term should both reflect what the EU would like to see internationally, but also be easy to align to any eventual international solution. This will require a careful approach. The more specific the EU provisions are, the more difficult will be an alignment with a subsequent global agreement. Therefore, the approach should be quite broad and flexible, while still providing Member States with a solid base to tax digital activity.

6.2 Option 3: Realigning profit allocation rules with value creation intra-EU and recommendation to change rules vis-à-vis third countries

The differential impact compared to Option 2 stems from its potential application vis-à-vis third countries, which would ensure a more level playing field. An update of all bilateral treaties between Member States and third countries takes time and requires also the willingness of all involved parties to follow the recommended approach. The main benefit would be in also covering digital activity in the EU of companies that are currently not tax residents anywhere in the EU. An examination of Orbis firm level data on affiliates of the set of 112 large digital companies shows that at least 75% of them have at least one affiliate in the EU. For the remaining 25%, there is no information in Orbis, but this does not exclude that they are present in the EU. Thus, the immediate impact of an application also vis-à-vis third countries might be small. The important effect is that it would provide for a level-playing field between EU and third-country companies. Compared to Option 2, it would also avoid any disincentives to become a tax resident in the EU. As such, it would also provide for a stronger, more positive impact on public finances and be overall fairer. Since it is not possible to anticipate which countries will update their treaties, and by when, the possible positive effects of the recommendation are only very generally taken into account.

Example

The examples for companies X and Y established in the EU are the same as for Option 2. Company Z, established in a third country C and carrying out digital activities in Member State B, may be subject to the new rules if third country C and Member State B have renegotiated their respective bilateral tax treaty accordingly.

6.3 Type and level of digital activities

Material scope

Activities involving the supply of physical goods are relatively less problematic and have been dealt with to a larger degree through anti-abuse rules. First, these activities tend to have a balanced international footprint as they often require local physical infrastructure – the international footprint of online retailers is 0.9 (see Figure 2 in Annex 5). Second, relatively more progress has been made within the OECD Base Erosion and Profit Shifting project in addressing issues in this area, notably through the measures that make the permanent establishment rules robust against commissionaire arrangements.[45] Note that excluding the supply of physical goods does not mean that platforms charging fees for facilitating the trade of physical goods would be excluded. These platforms charge fees for a digital service. It means, however, that the underlying sale of the physical good would not be within the scope.

The comprehensive solution should not ring-fence the digital economy but directly address its novel characteristics through a holistic approach that does not require singling out certain activities. Many of the stakeholders that replied to the Commission's open public consultation have made that point very clearly: "there is no such thing as the *digital economy*. The global economy is digital and should be treated as such for tax purposes"[46].

The new rules should proportionately address the current mismatch between taxation and value creation. To the extent that the comprehensive solution can accommodate in its profit allocation rules the different degrees of contribution of digital factors to the process of value creation, the scope for the comprehensive solution can be defined broadly to include all digital services. A definition of digital services for the purposes of a revenue threshold could be inspired by the definition of electronically supplied services, which exists for VAT purposes.[47] This would entail covering a broad range of digital services.

Digital activity thresholds

Ideally the digital activity thresholds should be defined in a way to

[45] Notably, activities around local warehouses no longer benefit from the specific activity exemption commonly included in the definition of a permanent establishment, unless they are preparatory and auxiliary in nature.
[46] Opinion expressed in one of the position papers that were sent to the open public consultation.
[47] 'Electronically supplied services' include services which are delivered over the Internet or an electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention, and impossible to ensure in the absence of information technology (Article 7 of VAT Implementing Regulation).

a) **Cater for different type of business models** - Digital business models are very heterogeneous. Some might rely on online contracts, while others do not. Some might have a very large user base while others might have a smaller user base, but still have significant user contributions as each individual user contributes a large value (users that produce content like videos or computer programs);
b) **Ensure that trivial cases are not covered and that the compliance cost for dealing with an additional permanent establishment is safely covered** by the profits generated through the permanent establishment. This is important for the proportionality of the proposed measure; and
c) **Ensure a comparable treatment in different Member States, irrespective of their size**.

A number of different types of activity thresholds have been proposed, notably in OECD (2015a) and Brauner and Pistone (2017) and Hongler and Pistone (2015). The thresholds most often discussed relate to:

- **Revenue** earned from customers/users in the jurisdiction
- **Number of users** (based on a concept of 'monthly average users'): A user is defined as any individual or business that registers, logs on or visits a company's digital platform.
- **Number of online contracts** (agreements to terms of service): Online contracts are defined as legally binding agreements concluded by accepting (through 'clicks') the 'terms of service' of the digital service provider.

The OECD (2015b) and Hongler and Pistone (2015) envisage to apply the revenue threshold in combination with other thresholds (Option b3), but this option does not deal effectively with business models that operate through indirect revenue generation. Proportionality is a strong rationale for the application of a revenue threshold. However, the advantage of an alternative application of all thresholds (Option b1) is that it also deals effectively with respect to the advertising business model that generates revenue not directly from its users but indirectly through sales to third parties. Option b2 has the same disadvantage as Option b3 and has the additional disadvantage that a cumulative application of all thresholds could result in a very narrow scope and is not suitable to capture effectively different types of business models. For example, some businesses do not apply any online contracts and the new rules would hence be of no consequence to them.

To ensure proportionality of the measure while operating alternative thresholds, it is essential to set each threshold sufficiently high to safely exclude small cases that would not even cover the tax compliance cost for a permanent establishment. Brauner and Pistone (2017) propose to make the thresholds flexible for countries to account for significant differences between countries, their geographical dimensions, the size of their economies, the number of inhabitants and other persons legally established on their territory, the criteria based on the number of users and the overall revenue are determined in a flexible way. However, if the main aim for setting each threshold is to ensure significant economic activity

and that compliance cost would be covered by the corresponding profits, it is more natural to apply absolute thresholds.

The starting point for setting the revenue threshold are the estimated costs for operating an additional permanent establishment. A conservative estimate (based on Annex VII of the impact assessment accompanying the 2016 CCCTB proposal) puts this figure at 0.55% of turnover (or EUR 128 000 on average) per year for medium-sized enterprises and at 0.23% of turnover (or EUR 141 000 on average) for large enterprises. A recent study on tax compliance costs (KPMG and GFK, 2018), points to estimates for direct taxes overall of 0.2% of turnover for medium-sized enterprises and 0.7% for large enterprises (although this estimate is subject to large uncertainty). For small enterprises the estimated amount is 0.9% of turnover.

If compliance costs are indeed proportional to turnover, then even with a profitability of only 1%, (which is well below of what we typically see for digital companies), compliance costs should be safely covered. However, it is likely that there are substantial fixed compliance costs (that arise from the start and independent from the amount of turnover). A conservative assumption is that only transfer pricing documentation is proportional to turnover whereas all other costs are fixed. This would give average fixed costs of EUR 80 000 for a medium-sized enterprise and EUR 87 000 for a large enterprise (see detailed split of costs in the tables provided in Annex 3). A company with turnover of EUR 5 million and profitability of 2%, would cover these costs. A threshold of EUR 10 million would allow for scenarios of even lower profitability and would be in line with the threshold for small enterprises in the EU.

To set the threshold on the number of users, data for the revenue per user is informative. Estimates for a range of different types of digital services[48] give the following average revenue per user in Europe[49]: social media advertising USD 15[50], ride sharing services USD 47, dating services USD 22, hotel rental services USD 47. Revenue per user in search advertising (the largest category in online advertising) is estimated at USD 13 for mobile users and USD 32 for desktop users in Europe in 2016.[51] In order to get a similar value of threshold in monetary terms as with option (i), the appropriate threshold of number of users, if applied alternatively to the revenue threshold, could be 50 000 - 100 000. In that case, the average revenue triggering the threshold would range from approximately USD 750 000 for 50 000 users and revenue per user of USD 15 (corresponding to approximately EUR 680 000[52]) to USD 4 700 000 for 100 000 users and USD 47 per user (EUR 4 250 000). Even if these numbers are somewhat lower than for the revenue threshold, this is justified as the data available often underestimates actual user figures (based on a comparison with data supplied by individual companies). Moreover, the user thresholds only become relevant in the case of

[49] Based on data published by Statista.
[50] Revenue per user in social media advertising is estimated at USD 16 for mobile users and USD 6 for desktop users, with an average of 15 (due to the bigger weight of mobile users):
https://www.statista.com/download/outlook/whiterpaper/Fullpage/2/220/102/2_220_102.pdf
[51] https://www.statista.com/download/outlook/whiterpaper/Fullpage/2/219/102/2_219_102.pdf
[52] Based on the 2016 annual average USD-EUR exchange rate of 1.11 (AMECO database).

indirect revenue generation, which typically either involves advertising models or at least large user bases.

There is a high variability in the type and value of the contracts, depending on the business model. Moreover, also the acceptance of 'terms of service' for the use of an online platform could be assimilated to the conclusion of a contract[53]. If so, a high threshold, very similar to the one of the user would be needed. In any case, anybody who agrees to the 'terms of service' would also be counted as a user. If relevant for the business, the acceptance of 'terms of service' could be accepted as a way to measure number of users for a digital service rather than a threshold per se. An alternative threshold on the contracts concluded locally could have an added value if it is about business-to-business contracts. For example, a cloud-computing service might have relatively few 'users' if it offers its services primarily to businesses customers, but each contract concluded with such a business customer would typically generate more revenue than revenue generated form a single user that is a natural person. Therefore, a threshold on business-to-business contracts should be considerably lower than a user-based threshold.

6.4 Impact on small and medium-sized enterprises

No direct impact is expected on small enterprises, whereas there might be some impact on medium-sized enterprises. Option 1 applies mandatorily only to companies with consolidated turnover above EUR 750 million and therefore affects directly only the largest companies. Due to the application of the digital activity thresholds, the vast majority of small enterprises would not be affected by options 2 and 3. Medium-sized companies might fall under the scope. However, additional permanent establishments would be triggered only in cases of companies being active in at least two countries. The type of company that triggers additional permanent establishments can reasonably be expected to exceed the thresholds for medium-sized enterprises. In any case, a mitigating factor would be the availability of the CCCTB, which affected companies could opt for and thereby mitigate their compliance burden. However, since regulatory and compliance burden may hurt small and medium-sized enterprises to a stronger extent, this burden will have to be monitored to assess whether such firms are disproportionately impacted.

The comprehensive option is expected to improve the level-playing field for small- and medium sized companies. It would provide for a more coherent digital single market in the future, which would in particular benefit small and medium-sized companies. Notably, it would improve the level-playing between large multinational digital players and smaller companies that are active cross-border less often (and have fewer tax planning opportunities). A modern and stable tax framework for the digital economy will set the conditions to

[53] See for example the OECD (2015a): Final Report p.110: "online platforms providing free services to their users often specify on their websites that by accessing or using the products and services of the company the user agrees to the “Terms of Service” and each use of the platform results in the conclusion of a legally binding agreement."

stimulate innovation, tackle market fragmentation and allow small domestic businesses to become global players.

7 HOW DO THE COMPREHENSIVE OPTIONS COMPARE?

Table (4) summarises the assessment presented in section 6. All comprehensive policy options are considered to be to some degree effective in achieving the various objectives set out for this initiative. In terms of potential costs, Option 1 might bring additional burdens as it is possible Member States would still take unilateral actions in the future. Overall, Option 1 is considered to be only moderately effective in achieving the objectives. At the same time, the economic impacts expected are minor and it does not provide a coherent approach for the EU to put forward for a global solution. Options 2 and 3 are considered to be similarly effective in achieving the objectives of this initiative. Option 3 is, however, more effective due to its stronger impact on a more level playing field and fight against tax planning. This effect is difficult to evaluate as one would have to anticipate how many Member States would follow the recommendation to revise their tax treaties with third countries. However, Option 3 is considered to be the one with the largest coherence, notably by providing a viable path towards a global solution to the problem.

Table (4): Comparison of effectiveness, efficiency and coherence of comprehensive options

	Option 1	Option 2	Option 3
	Intra-EU - narrow scope: Adjustments to the CCCTB rules	Intra-EU - wide scope: Directive on new permanent establishment and profit allocation principles + adjustments to the CCCTB rules	Intra-EU - wide scope + recommend application vis-à-vis third countries
a) Integrity of the Single market	Weak	Medium/Strong	Strong
b) Sustainability of public finances	Medium	Medium/Strong	Medium/Strong
c) Social fairness and level-playing field	Weak	Strong	Strong
d) Fight against aggressive tax planning	Medium	Medium	Medium/Strong
e) Economic impacts	neutral	+	+
f) Admin burden and compliance costs	-	+	+
g) Coherence with EU and global tax agenda	neutral	+	++

Source: European Commission own analysis

A proposal for a digital presence in the EU is the preferred approach for more than half of the respondents to the stakeholder consultation. Table (5) summarises the stakeholders' preferences for the comprehensive solutions (see Annex 2 for more details). The preferred option coincided for both groups of stakeholders: 14 out of 21 national tax authorities as well as 58% of the 446 respondents to the open public consultation believe that the 'digital presence in the EU' proposal can best address the current problems related to the international taxation rules for the digital economy. Stakeholders were not asked explicitly on their preferred approach vis-à-vis third countries.

Including only digital services in the material scope (Option a2), and not the online sale of goods, accompanied by appropriate digital activity thresholds, would be required for a proportionate approach. This is because activities involving the supply of physical goods are relatively less problematic and have been dealt with to a larger degree through anti-abuse rules. In terms of the digital activity thresholds, setting them in an alternative way (Option b1) would ensure capturing important cases where indirect revenue generation is the norm. To exclude cases of unjustified compliance burden, a local revenue threshold in the range of EUR 5-10 million and a user threshold in the range 50-100 thousand would be appropriate.

Table (5): Summary of stakeholder views on comprehensive policy options

Option name	For	Against	No opinion
Long term, comprehensive solutions			
Modify the Common Consolidated Corporate Tax Base proposal	44 % of respondents	27% of respondents	29% of respondents
	9 states	9 states	3 states
'Digital presence in the EU' proposal	58 % of respondents	28% of respondents	14% of respondents
	14 states	5 states	2 states
Destination-based corporate tax	54 % of respondents	34% of respondents	12% of respondents
	6 states	12 states	3 states
Unitary tax	50 % of respondents	37% of respondents	13% of respondents
	6 states	13 states	2 states
Residence tax base with destination tax rate	28 % of respondents	53% of respondents	19% of respondents
	1 state	17 states	3 states

Source: European Commission stakeholders consultation results

8 PREFERRED COMPREHENSIVE OPTION

8.1 Description of the preferred comprehensive option

Overall, and given the lack of significant progress at international level on the issues at the root of the problem, ensuring a coordinated EU approach seems warranted (i.e., 'no action' is not the preferred option). A coordinated approach would prevent further fragmentation of the single market, prevent future complexity and administrative burden for

digitalised businesses and would provide companies with a certain degree of certainty about the way they will be taxed in the future.

As there is little appetite for fundamental reform options, Option 3 is the most effective option to achieve the objectives and with the best efficiency and coherence properties. It offers a structural solution to the identified problems intra-EU, and through the recommendation it would emphasise the need for solutions beyond EU borders, providing the ground for the EU contribution to the work at OECD and global level.

The preferred comprehensive option has two elements: a Directive, which should be included in the CCCTB negotiations, and a Recommendation.

1. Directive on digital permanent establishment and profit allocation rules, which should be included in the Common Consolidated Corporate Tax Base (CCCTB) negotiations.

The Directive would establish common rules for a digital permanent establishment and for allocating profits to digital activities of such permanent establishments. Member States would have to implement the provisions of this Directive in their national corporate income tax framework. The principle of the Directive entails the application of a corporate tax on profits resulting from providing digital services in the EU. Within the EU, a taxing right would be triggered through a digital permanent establishment, if it exceeds certain digital activity thresholds. These thresholds would be applicable at Member State level and apply alternatively, based on either realised revenues from digital services (broadly defined) of EUR 5-10 million, or the number of active users of digital services of 50 000 – 100 000 or possibly also the number of online contracts concluded. A definition of digital services for the purposes of the revenue criterion could be inspired by the definition of electronically supplied services, which exists for VAT purposes[54]. Considering that in the digital economy, a significant part of the value of a business is created where the users are based and data is collected and processed, additional criteria specifically and exclusively targeted at these aspects would be added to profit allocation principles. Member States would continue to apply their national corporate income tax rules with respect to the profits attributable to a digital permanent establishment in their jurisdiction.

Once agreed, the new digital permanent establishment concept should be reflected in the CCCTB, along with an adapted formula. The new rules on permanent establishment could be directly inserted in the CCCTB. To adapt the formula in the spirit of the agreed new principles for attributing profits, the formula could be amended by a factor that reflects the user contribution to the value creation.

[54] 'Electronically supplied services' shall include services which are delivered over the Internet or an electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention, and impossible to ensure in the absence of information technology (Article 7 of VAT Implementing Regulation).

2. Recommendation to Member States to implement digital permanent establishment and profit allocation rules in their double tax treaties.

To address situations involving third countries in a way that does not violate Member States tax treaties, Option 3 involves a Commission recommendation setting out the proposed changes to the double taxation treaties. To facilitate the required renegotiation of double tax treaties, the Commission would issue a recommendation setting out the proposed changes to the double taxation treaties of Member States in relation to Article 5 Permanent Establishment and Article 7 Business Profits of the OECD Model Tax Convention. To complement the recommendation, the Commission could, without prejudice to the EU and Member States' competences, assist Member States in the negotiation of these provisions with selected third countries in a coordinated manner at the Union level, if authorised to do so by the Council.

8.2 Administrative burden and compliance costs

In principle, all business sizes could be affected by the additional tax compliance burden, but the digital activity thresholds make an application for the smallest companies unlikely. The preferred solution could therefore also cover relatively smaller businesses that have a sufficiently large digital footprint in Member States where they are currently not established.

In a first step, all companies carrying out digital activities in an EU Member State where they are not already tax resident or have a permanent establishment have to determine whether they exceed the digital activity thresholds. This would involve determining the type of digital activities falling under the scope of the comprehensive solution and their level in a given Member State, such as the revenue derived from that activity and the number of active users. This would require splitting revenues issued from the relevant digital activities with revenues from other activities and identifying the number of active users of the digital service in a Member State in a tax year. However, the additional burden of collecting the data should be rather limited given the availability of the information (see section 9.3.9).

In a second step, businesses would face a one-off costs to set up reporting for new permanent establishments as well as recurrent tax compliance costs. Given the level of the digital activity thresholds (which would effectively exclude small enterprises), estimates of recurrent costs of an additional subsidiary of a large or medium-sized parent can be a basis for estimation. In the impact assessment accompanying the 2016 proposal for a CCCTB[55], Deloitte estimated that under a situation with different tax codes in Member States, the additional recurrent compliance costs for a large representative parent investing in a medium sized subsidiary amounts to 0.23% of turnover, while for a medium parent this ratio more than doubles to 0.55% of turnover. These figures amount to on average roughly EUR 141 000 and 128 000 respectively, calculated from the estimated compliance time (detailed tables are

[55] SWD(2016) 341

provided in Annex 3). The two biggest cost items are for the required transfer pricing documentation and for dealing with the tax authorities.

For companies within the mandatory scope of the CCCTB or opting to apply the CCCTB, the additional compliance burden would be considerably lower. Due to the elimination or reduction of transfer pricing related compliance tasks, and of those related to contacts with tax authorities, an average decrease in total additional compliance time of 70% can be expected if the additional cross-border investment is made under the CCCTB regime.[56] This results in a reduction of compliance costs of 62% for a group with a large parent and of 67% for a group with a medium-sized parent.[57] Companies outside the scope of the CCCTB would also have the possibility to opt in.

National tax administrations would also incur costs for implementing the new system. Costs arise notably for the need of upgrading IT systems and for staff training to be able to attribute profits to the permanent establishment and to reflect the digital activities in that Member State. The implementation of the CCCTB should already provide a solid framework for the tax administration on which to rely on. There will also be a need to coordinate in the EU the uniform implementation and practical application of the new rules. Since the comprehensive solution would not apply for all firms and in case the interim solution continues to run in parallel where the comprehensive solution is not in place, the burden for national administrations may overall go up slightly due to the required maintenance of parallel systems. National tax administrations may also face additional costs for negotiating double tax treaties.

8.3 Subsidiarity and proportionality of the preferred option

The preferred solution is in line with the general understanding of the subsidiarity principle. The nature of the subject requires a common initiative across the single market. The preferred solution outlined in this document aims to provide a common framework for the taxation of cross-border digital activities in Member States' national corporate tax systems in a coordinated manner. Such aims cannot be sufficiently achieved through action undertaken by each Member State while acting on its own. Such an approach would in fact only replicate and possibly worsen the existing fragmentation in the single market and perpetuate the present inefficiencies and distortions in the interaction of a patchwork of distinct measures. If the objective is to adopt solutions that function for the single market as a whole, the appropriate way forward involves coordinated initiatives at the level of the EU. Furthermore, an EU initiative would add value, as compared to what a multitude of national implementation methods can attain. Finally, if the rules on the taxation of digital activities are enacted according to the acquis, taxpayers would have the legal certainty that they comply with EU law.

[56] The individual results by country-pairs range between 11% to 91% savings in additional compliance time.

[57] Deloitte's tax experts expect that the group led by a medium parent can realise more savings on time spent by external advisors that generally have higher costs per hour than the internal workforce.

The measures to be taken under the present initiative are both suitable and necessary for achieving the desired end (i.e. proportionate). The preferred solution outlined in this document does not imply a harmonisation of corporate tax rates in the EU and, therefore, it does not restrict Member States' capability to influence their desired amount of corporate tax revenues. It does not interfere with national choices in terms of the size of public sector's intervention and composition of tax revenues. It proposes a more efficient way to tax the digital activities of companies operating in the EU to secure a more efficient single market. Appropriate digital activity thresholds ensure that the additional compliance burden from creating additional permanent establishments is limited to non-trivial cases, where companies are likely to cover the costs from the local profits.

9 INTERIM SOLUTION

For the interim solution, the general objectives remain the same, but the specific objective is to create a tax targeting digital business models that is easy to implement and improves the level-playing field and fair taxation in the interim period until the comprehensive solution is implemented.

9.1 What is the baseline against which the interim solution is assessed?

Even though there is only one set of baseline assumptions (as set out in section 5.1), there are some relevant considerations when assessing the interim solution and the possibility of taking no action. Notably, it is taken as given that the preferred comprehensive solution will eventually replace the interim solution. This implies that each of the interim solutions will be assessed against a scenario, in which the preferred comprehensive solution is not yet in place and neither would be the CCCTB, as it was proposed in 2016. However, since most provisions of the Anti-Tax Avoidance Directive will be applied as of 1 January 2019, the assumption is that this directive applies in the baseline.

It is not possible to concretely anticipate not yet specified unilateral measures, but there is a clear risk that unilateral measures will keep expanding in the near future. Although specific indirect taxes affecting businesses in the digital economy are so far not significant in scope and revenue, a certain shift towards introducing new indirect taxes in general is slowly continuing at global level.[58] Table 6 provides an overview of already implemented or concretely planned measures in the EU and third countries.

Table (6): Overview of unilateral measures taken/planned

Country	Planned/ adopted/	Type of tax

[58] PWC (2013) – Shifting the balance from direct to indirect taxes: bringing new challenges.

	implemented	
Indirect taxes[59]		
In the European Union		
Hungary	Implemented (2014), amended (2015, 2017)	Tax on advertisement
UK	Planned (2019)	Withholding tax on revenues derived from intermediation and the provision of online advertising
Italy	Planned (2019)	Tax on digital business-to-business transactions of electronically supplied services
France	Implemented (2003), amended (2016)	Levy on access to content, including digital content by means of a video-on-demand / over-the-top online platform (for the cinematography fund)
Germany	Implemented (2004), amended (2010)	Levy on access to content, including digital content by means of a video-on-demand / over-the-top online platform (for the cinematography fund)
Romania	Implemented (2005), amended (2008)	Levy on access to content, including digital content by means of a video-on-demand / over-the-top online platform (for the cinematography fund)
Croatia	Implemented (2007)	Levy on access to content, including digital content by means of a video-on-demand online platform (for the cinematography fund)
Portugal	Implemented (2007)	Levy on access to content, including digital content by means of a video-on-demand online platform (for the cinematography fund)
Belgium (certain regions)	Implemented (2009)	Levy on access to content, including digital content by means of a video-on-demand online platform (for the cinematography fund)
Czech Republic	Implemented (2012)	Levy on access to content, including digital content by means of a video-on-demand online platform (for the cinematography fund)
In third countries		
United States (certain states)	Implemented (2015-2016)	Levy on access to digital content and streaming services
India	Implemented (2016)	Levy on the provision of online advertisement services by non-residents
Canada (certain states)	Planned (2018)	Levy on access to digital content and streaming services

[59] VAT on digital services is not included here.

Brazil (certain states)	Planned (2018)	Levy on access to digital content and streaming services
Direct tax initiatives (anti-abuse and new approaches to define a significant economic presence for tax purposes)		
In the European Union		
UK	Implemented (2015)	Diverted profits tax
Italy	Adopted (2017), in force (2018)	Administrative procedure for large non-resident multinational enterprises
Slovakia	Adopted (2017), in force (2018)	Tax on income derived from intermediation through websites and online platforms
In third countries		
Israel	Implemented (2016)	The significant economic presence test for non-resident enterprises
Australia	Implemented (2017)	Diverted profits tax and additional anti-avoidance rule for large non-resident multinational enterprises
India	Planned (2018)	New concept of significant economic presence
United States	Adopted (2017), in force (2018)	The introduction of the concept of a 'base erosion anti-abuse tax' (BEAT) for large multinational enterprises

Source: European Commission analysis based on various sources, such as national legislations, replies to the Member State consultation or other government sources, websites of national film funds, European Film Agency Directors (EFADS) website, website of the International Bureau of Fiscal Documentation (IBFD - for most of the direct tax initiatives) and Thomson Reuters Tax & Accounting for the US BEAT measure.

9.2 What are the available interim policy options?

Focus on taxes on revenue from digital services

The international debate on solutions for taxing digitalised businesses focusses predominantly on revenue taxes. Table 6 shows that almost all unilateral taxes that have already been introduced or are being planned are revenue taxes. The OECD in its work has also focussed on taxes levied on revenue whenever considering interim solutions to the taxation of the digital economy (OECD, 2015a). Table (6) shows that almost all existing and concretely planned taxes are revenue taxes.

Indeed, other conceivable interim, interim solutions are either difficult to reconcile with the current (international) tax framework or their implementation would be too complex for an interim solution. To be implementable within a reasonable time span, any feasible solution first needs to respect the boundaries set by the national and international legal framework, notably the EU treaties, the rules implied by membership of the World Trade Organisation, and other international commitments, for example through the Inclusive Framework or the OECD multilateral instrument, double tax treaties, and the EU rules for VAT. Secondly, any feasible interim solution needs to be implementable in practice within a

reasonably short period of time, which excludes options that pose considerable practical implementation challenges.

Raising VAT rates on digital services is not feasible within the EU VAT framework. In particular: (i) higher VAT rates for certain digital services would run counter the current principle in the VAT Directive[60] that all goods or services could only be taxed up to the standard rate; (ii) Member States are currently allowed to set up one standard rate only, and deviating from this principle would cause major disruptions that the current objectives do not justify; and (iii) raising VAT on services supplied digitally, and not on the same services which could also be supplied non-digitally, could raise concerns from the perspective of the principle of fiscal neutrality[61]. Further, it must be borne in mind that a higher VAT rate would have a very limited impact on business-to-business transactions, due to the deduction of input VAT to which the vast majority of businesses are entitled. Finally, raising VAT rates would seem to run counter to the proposal on VAT rates of 18.1.2018[62] which is intended to give more freedom to Member States to set VAT rates.

A transaction tax on those digital services that are remunerated by users through the provision of data is also discarded, as its implementation would be too difficult. The tax would be levied early-on in the value creation process on the provision of a digital service (for example, performing a web search) remunerated by users through the provision of data. In the absence of a monetary compensation for the digital service, the tax would have to be levied on a deemed turnover or profit on the barter transaction: provision of data for access to a digital service.[63] Therefore a deemed monetary value would have to be attributed to data transactions, which is not realistic to implement within a short period of time. Moreover, as the Commission Expert Group on the taxation of digital economy (2014) points out – gathering of data 'per se', should not constitute a taxable event – it may constitute internal know-how of the company and never be transferred. If on the other hand, the data is transferred and monetised at a later stage, it would be taxed twice.

Although a tax on profits may be theoretically more efficient, it does not present a realistic option for an interim solution, largely due to its interference with double tax conventions. A new tax on profits within the existing international corporate tax framework would face exactly the same limitations that are at the root of the problem. In a model with perfect tax enforcement the optimal tax base is pure profits (preserving production efficiency), whereas, even at a low rate, revenue taxes can be inefficient as they apply multiple times over the supply chain and distort input prices ('cascading effect'). However, if profit taxes are difficult to enforce, accepting some degree of cascading could improve outcomes, as the loss of production efficiency could be more than compensated for by the increase in revenue collection as the broader turnover base is harder to circumvent. In addition, levying a specific

[60] Council Directive 2006/112/EC of 28 November 2006 (OJ L 347, 11.12.2006, p. 1).
[61] See, among others, CJEU judgment of 3 May 2001, Commission v France, C-481/98, EU:C:2001:237, paragraphs 21 and 22.
[62] COM(2018) 20 final
[63] Such a tax could be potentially interesting as it could address some negative externalities arising from the exploitation of personal data (Bloch and Demange 2018)

tax on profits derived from digital services is complex. It requires determining the corresponding costs incurred in relation to the digital service as companies in most cases earn also other revenues (not falling under the scope of the new tax).

In its conclusions from 5 December 2017, the ECOFIN Council has invited the Commission to also assess temporary measures, mentioning explicitly a levy based on revenues from digital activities in the EU that would remain outside the scope of double tax conventions.[64] Given this increased focus on revenue taxation, the options examined here also revolve around variants of such a tax. The various options examined mainly vary in terms of their scope (type of company and type of services covered), their threshold and their applicable rate.

Possible design options of a revenue tax on digital services

To comply with the existing legal framework, the tax would need to apply to resident and non-resident companies alike, as well as to domestic and cross-border transactions. The equal treatment of residents and non-residents is needed to comply with the free movement of services case law of the Court of Justice which found that it is discriminatory to a apply a specific tax to non-residents, if the comparable activity or income of resident taxpayers is not taxed by an analogous tax (with a similar rate and based on a similar tax base – see Joined Cases C-344/13 and C-367/13 Blanco and Fabretti). In addition, the fundamental freedoms, namely Articles 49 and 56 TFEU as interpreted by the European Court of Justice, require that cross-border activities are subject to the same tax treatment than domestic ones. See also Schön (2017) for a similar analysis and conclusion.

Moreover, alleviating double taxation by crediting corporate tax already paid against the new tax or vice versa is not a feasible option. Crediting would involve deducting one tax against the tax liability of another tax, thereby potentially fully compensating for the tax paid. First, crediting the new tax (an indirect tax) against corporate income tax (a direct tax) or vice versa would compromise the legal nature of the tax and impact double tax conventions. Second, the possibility to credit corporate income tax (or against corporate income tax) would in practice only be feasible if a company is established or has an existing permanent establishment in a Member State. If as result only those businesses not established in a Member State, or without a permanent establishment in that Member State, would be taxed for their digital services in that Member State, the new tax could be seen as a *de facto* restriction on the freedom to provide services within the EU. In addition to these legal considerations, crediting corporate income tax would also be difficult from a practical perspective. It would require determining the share of corporate tax paid that relates to the taxable revenues from the digital service. A feasible option is to allow the deduction of the revenue tax against the corporate tax base, an option examined in section 9.3.

[64] The Council "INVITES the Commission in responding to the challenges of taxation of profits of the digital economy to take into account paragraphs 13 to 20 of the present conclusions, and however, TAKING NOTE of the interest of many Member States for temporary measures, such as for example an equalisation levy based on revenues from digital activities in the EU that would remain outside the scope of double tax conventions concluded by Member States, CONSIDERS that these measures could also be assessed by the Commission;"

All other design options are less clear-cut and each 'design dimension' comes with at least two main options to choose from. To keep the exposition in this impact assessment tractable, the assessment within one option dimension is treated largely independent from choices in the other dimensions, unless there is a direct cross-impact. For example, to assess different options for the tax rate, the expected revenue collected from the tax plays a role, which in turn depends on other choices such as the scope of the tax and the threshold applied.

9.2.1 Options for the material scope (which services are covered)

Three main options for the material scope of the tax are being examined, which differ in the degree to which they capture user contribution to the creation of the digital service.

Broad scope – A first option would be to apply the tax to digital services from all business models as described in section 2.1.4, irrespective of the degree of user contribution. This would include services provided by marketplaces/intermediary platforms, by businesses employing the social media and advertising model and by digital platforms granting access to content/solutions.

Narrow scope – Another option would be to apply the tax narrowly to those business models where the user contribution plays a central role in the sense that the service would not exist if the user did not contribute to it (e.g. the advertising model and marketplaces/intermediary platforms).

Mixed scope - A third variant would be to levy the tax on a broader scope than the narrow one by adding other services where user contribution is significant but maybe not essential (e.g. including also some of digital content/solution services). This would require an analysis of the nature and degree of user contributions for various activities.

9.2.2 Options for the application of a revenue threshold

One option is to have no threshold and apply the tax to all companies with relevant services.

Alternatively, the tax could be applied only to companies that exceed certain revenue thresholds.

Moreover, thresholds could be defined on a worldwide basis, at EU, or at Member State level and could either be defined in terms of overall revenues of a company (irrespective of the service generating the revenue) or in terms of revenues from the provision of digital services.

9.2.3 Options for the tax rate

Given that it would be applied on turnover and not on profit, a low rate is warranted. Hence, options for a tax rate varying between 1% and 5% of the revenues from the relevant services will be examined.

9.2.4 Options for the allocation of the tax

Where the users involved in digital services are located in different Member States, the revenues resulting from the supply of the services could either be allocated to each Member

State **where the users are located**, irrespective of whether such users have paid for the service they received, or solely to the Member States from **where a payment has been made**.

If tax base is allocated according to where users are located, the revenues resulting from the supply of services consisting in the placing of targeted online advertising to users would be taxed in the Member State where the users are located (i.e. the Member States of the viewer). And the revenues resulting from the supply of services consisting in the making available of online platforms where users can interact would be taxed in the Member State where such users are located.

9.2.5 Options to relieve double taxation

The new tax could or could not be deducted against corporate income tax paid to alleviate potential cases of double taxation.

9.2.6 Options for the collection of the tax

The payment of the tax can be made by the company conducting the digital service (based on aggregate gross revenues from the relevant services) using a self-declaration system. For non-resident companies, this could be administered via a One-Stop Shop. Alternatively, the tax could be levied as withholding tax paid by the customers or intermediaries involved (based on individual digital transactions).

Table (7) Summary table of the description of main option dimensions for the interim solution

1. Services covered	2. Revenue threshold(s)	3. Rate	4. Allocation of tax	5. Double tax relief	6. Collection of the tax
Broad application, revenues from social media/advertising model, intermediary platforms and digital content/solutions	No threshold	1%	Based on the distribution of users.	No deduction from the corporate income tax base.	Tax withheld by customers or intermediaries, based on individual digital transaction
Narrow application, i.e. limited to social media/advertising model and intermediary platforms	Application of a general revenue threshold Y/N and level	3%	Based on the distribution of revenue.	Deduction from the corporate income tax base.	Tax paid by companies on aggregate gross revenues from the relevant services, using a self-declaration system. For non-resident companies, possible administration administered via a one-stop shop
Mixed application which includes social media/advertising model, intermediary	Application of a specific threshold on revenues from relevant digital services Y/N	5%			

platforms and some of digital content/solution services	and level

Source: European Commission own analysis

9.3 What are the impacts of interim policy options?

Under this section, the interim solution options will be assessed separately on the various dimensions for which a decision needs to be taken.

9.3.1 No action on an interim solution

It is fair to expect that the service-based economy and especially the digital economy will continue to develop. The rapid pace, at which this has happened in the recent past, suggests that this development will also be relevant in the shorter term, making the challenges related to the taxation of digital business models more acute. Based on forecasts by Statista on the developments of revenues in different digital markets, one can expect annual growth rates between 6% and 17% for digital markets such as online advertisement, digital media or online travel.[65] Section 5.1 provides a more detailed discussion.

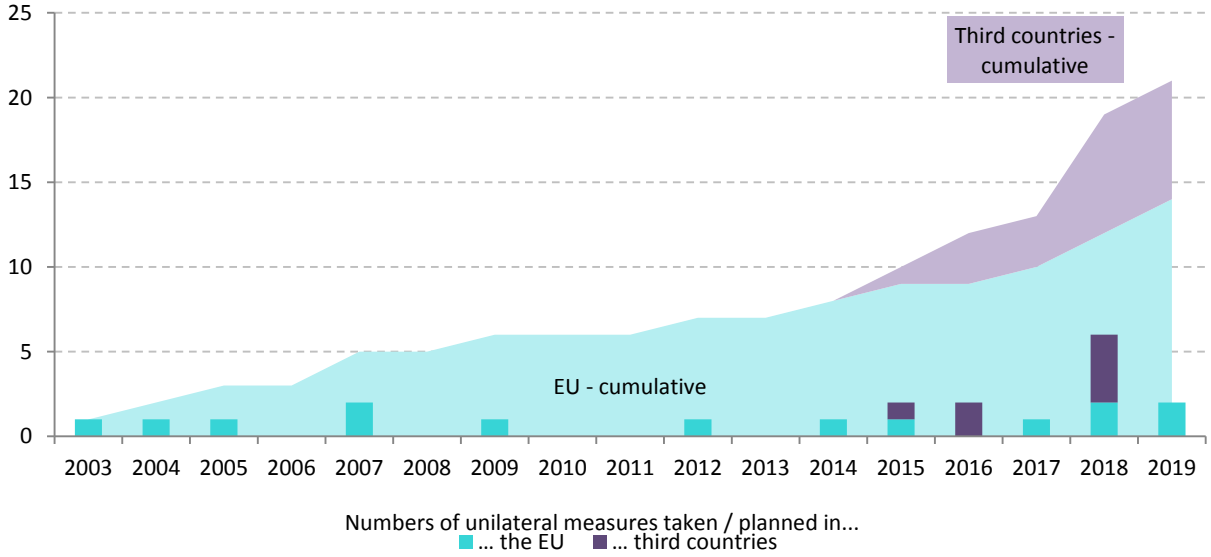
As Member States and the public wish to see that all type of companies contribute equally to public budgets, the pressure to act at national level will increase. Not offering any interim solution is therefore likely to result in more unilateral national measures targeting by and large the digital economy. So far only a few specific tax measures are in place or are concretely planned in certain Member States (see Table 6 in section 9.1), but the trend has been increasing (Figure (4)). Moreover, these measures are rather different in terms of their scope and rationale. The European Council observed in its conclusions of 5 December that "*the speed at which the economy is digitalising and the absence of international consensus on the modernisation of the rules of distribution of taxing rights gives rise to unilateral actions, leading to an increase of double taxation disputes between Member States and thereby undermining the Internal Market*". This is also a risk that respondents to the open public consultations see. More than 80% of the 462 respondents agree (or even strongly agree) that the "current situation could push some Member States toward adopting uncoordinated measures that would lead to the fragmentation of the Single market". Only 6% disagree with this statement.

With an increasing number of unilateral measures, competitive distortions, compliance burden and double taxation disputes increase, while it gets more difficult to harmonise the variety of taxes or agree on comprehensive solutions in the future. As a significant number of digital companies are active in more than one jurisdiction, distortions of competition and of the single market can occur. These relate to potential instances of double taxation (if two Member States levy, for example, an indirect tax on the same specific digital

[65] Statista Digital Economy Outlook 2017.

services) or double non-taxation (if neither of two Member States taxes such specific digital services). Double taxation could occur, for example, if both countries tax online advertisement services, but use different principles (country A levies the tax if the company placing interim online advertising to users is resident there and country B levies the tax if the companies advertising their products in country A are resident in country B). These situations are likely to increase double taxation disputes between Member States. They would furthermore most likely remain unresolved because existing international dispute resolution rules do not cover these cases.

Figure (4): Development of number of new measures targeting businesses in the digital economy in the EU28



Source: European Commission services analysis (see Table (6))

9.3.2 Material scope (which activities are covered)

Which activities could be subject to a new tax on revenues derived from digital activities is a central question. Activities involving the supply of physical goods are excluded from the scope of the comprehensive solution and as the interim solutions serves as a proxy measure, the same applies here as well (see section 6.1). Again, this does not mean that platforms charging fees for facilitating the trade of physical goods are excluded. These platforms charge fees for a digital service.

A key principle to respect when addressing challenges in taxing the digital economy is the taxation of profits where the value is created. Although to different degrees, this rationale holds for both a comprehensive solution and an interim solution. Section 2.1 evidenced the complex nature of value creation in the digital economy. The value creation is the result of a combination of several factors that are mainly technology (such as an algorithm), knowledge and user contribution.

The interim solution is meant to be a good and simple interim proxy to deal with the most extreme cases of mismatches between the location of taxation and value creation. Since the tax would be based on gross revenues and needs to be simple, it cannot be tailored towards different degrees and types of user contribution. Allocating the revenue tax base across jurisdictions needs to be based on simple rules, which implies that other components of value creation are difficult to take into account.

The interim solution would thus fully weigh on one factor of value creation – the one currently disregarded in profit allocation rules, which is related to user contribution. As a result, central to the definition of the scope, is the role of users in the value creation for digital business models. In other words, all digital services should be covered for which the users play a central role in the value creation. A test to determine whether a certain service falls within the scope could be that in absence of user generated content and of user participation, the digital service would not exist in its current form. Table 8 summarises a qualitative assessment of the relevance of user-based features for the business models identified in section 2.1, except for telecoms and software and for online retailers as far as the supply of physical goods is concerned.

Table (8): Qualitative assessment of users' role in the value creation in digital business models

Business Model	Revenue model	USER-BASED FEATURES	
		Network effects	Big Data Relevance
1 Marketplace / Intermediaries	Subscription or transaction-based fees paid to platforms	●●●	Reliance: ●●● Source: user behaviour on platform, reviews (both sides). Use: matching, reputation/trust building
2 Advertising model	Sales of advertisement space; Sales/transmission of data	●●● (including from users to advertisers)	Reliance: ●●● Source: user behaviour on platform, websites Use: targeted advertising
3 Digital content/solutions: i) media/content ii) gaming iii) electronic payment iv) cloud computing services v) other digital solutions / software	Pay-per-use, subscription or transaction-based fees.	●	Reliance: ●● This category covers many services with a wide range of use of consumer data in the value creation Source: from customers' behaviour to generation of content Use: improve quality of service, pricing or sales policy, development of new products

Source: European Commission services

*Legend: ●**Moderate; ●●Strong; ●●●Very Strong***

Note: Network effects occur when the size of the overall network increases users' satisfaction. It encompasses both direct and indirect effects.
The distant sales model/e-commerce is not in the scope of the interim solution.

All the above business models rely on users to create value, although to a varying extent. User data can be used to support the distribution side of the business by defining sales-, marketing- and pricing policies. An example would be online retailers or digital media providers analysing consumer preferences to display their products in a more targeted way. But user data can also be used to improve consumer experience, develop new products or sell user information to third parties. The participation of users can be passive (for example, by providing information by clicking on links or doing online search) or more active (for example, ensuring the quality control through rating or reviews, by sharing a playlist or creating online content by sharing knowledge, codes or videos, by entering/sharing their information and preferences, which allows matchings them with specific other users, on a platform). Where the market value of a business increases with the size of the user network (through 'network effects'), users have an additional role in the value creation, either passively merely by joining the user base, or more actively, for example by inviting new users.

Business models which generate revenues from selling advertisement space or selling user data as well as intermediary platforms heavily rely on user participation to their network. Indeed, such business models would not exist without user contributions. In the case of online advertising, for example by social media and search engines, the revenue is entirely based on the exploitation of detailed granular knowledge about user preferences and characteristics (including location), either through the offering of in most cases very effective targeted advertisements or through the outright sale of this information to third parties. The relevant knowledge is generated through the analysis of the user online actions (e.g. web browsing, content creation), collected and analysed with big data methodologies.

Strong network effects help to build-up a very large user base, which is a pre-condition for both big data analysis and for general company profitability given the low profit per-user and the very high fixed costs. In some cases, users contribute also to the creation of the service in exchange of advertising (e.g. online content for social media). In the case of marketplaces, building trust between the buyers and the sellers is essential for the existence of the market itself. The build-up of trust is usually attained through a mechanism of user reviews, which is a form of user creation of content. In the absence of a trust mechanism, transaction costs would be too high for purchases to happen. A significant scale, required for big data analysis, is also very relevant for obtaining a better match between sellers and buyers, thereby improving the service, which in turn helps attracting new users.

The nature and degree of user contributions vary considerably across and within different digital content/solution services. The latter can be further broken down as follows:

- digital media/content
- gaming
- electronic payments
- cloud computing

- other solutions

For most of these sub-categories, user-generated content and user participation is not central to value creation, although there are significant variations from one service to another and across companies. Gaming is a clear example. Users can play against a computer. But they can also play against each other (hence the importance of the network) and even create new features of the game. Similarly, looking at cloud computing services, which generally rely only to a limited extent on user participation, there are cases in which companies rely on users to extend their scale (e.g. by offering extra free space to a user in exchange of inviting potential new user to join the network or to share some content). E-payment may involve intermediary platforms but in such cases, the digital service offers a solution that allows two or several users that are already in contact to finalise a transaction. In such case, the e-payment platform does not require user data to enable them to find each other and meet on the platform.

Pinning down the level of user contribution for each sub-category and company would require a case-by-case assessment based on a solid methodology, which would add complexity to the new tax. However, the more complex the composition of services subject to the new tax is, the higher is the risk that companies plan around it by putting in place arrangements to avoid paying the tax. Capturing a large variety of different services in legal text is difficult. It may even require a detailed definition of criteria and/or a nomenclature to assess whether a company falls under the scope. This in turn implies increased administration and compliance costs, including elevated risks for disputes. Such complexity would be likely with the mixed scope, but to some extent also for the broad scope, for which exemptions would likely be necessary (for example excluding the sale of software). Moreover, in the absence of solid methodology, the tax risks also capturing services for which the user contribution is rather limited. Hence it would not be a good proxy for the comprehensive solution and therefore not a coherent measure.

The narrow scope has the lowest risk of taxing too heavily services that play a key role for the development of the digital single market. For example, a number of digital solutions and cloud services, but also Information and Communication Technology services are important in the business-to-business segment that helps both younger, more innovative companies to develop, but also more traditional companies to benefit from digitalisation of their processes. It would also avoid the double taxation of digital content that could already be subject to a specific levy (e.g. audio-visual media services as envisaged in the review of the Audio-visual Media Services Directive, which are already subject to a tax in a number of Member States).

In terms of potential revenue impact there is little reason to include or exclude certain services. Sections 9.3.3. - 9.3.5 discuss the revenue potential of the measure for different assumptions on the scope. Overall, the tax revenue potential is limited in the short term, the key advantage of the interim measure rather lying in the prevention of a mushrooming of unilateral measures.

To improve fair taxation, it is important that the interim solution has a clear and strong rationale for attributing tax base across jurisdictions. If the tax is allocated based on a fairly simple allocation key that captures mainly user contributions, the best and fairest outcome can be expected with the narrow scope or a very well targeted (and functioning) mixed scope. Attributing revenues based on user contributions which rely heavily on other types of input would not result in a fair allocation of the tax and could overall hurt the fairness of the system.

Both the narrow scope as well as a (selective) mixed scope would improve the level-playing field compared to the baseline scenario. The key improvement would happen by preventing further fragmentations of the single market. Irrespective of the option chosen for the material scope, it can be expected that a new harmonised tax on revenues from digital services would largely stop the trend towards additional unilateral measures. However, a too broad scope could at the same time risk putting an extra burden on services which today's tax system already captures more satisfactorily as user contributions play a more limited role. For example, online platforms offering digital content will often target this content based on an analysis of user data, but they may also use very substantial 'traditional' inputs to create content (for example, producing a movie) or tailor their services requiring local staff (for example, digital business-to-business solutions).

Table (9): Summary of assessment on the material scope

	Broad scope – all services	Mixed scope	Narrow scope
Improving fairness	-	+	++
Improving the level-playing field	+	++	++
Economic impacts (revenue potential, impact on digitalisation, distortions caused)	-	+	++
Administrative and compliance burden (including ease of implementation)	+	-	++
Coherence (notably with comprehensive solution)	-	+	+++

Source: European Commission own analysis

Notes: The assessment is done against the baseline scenario. The number of 'plusses' signify the degree of improvement compared to the baseline scenario. The number of 'minuses' signify the degree of worsening compared to the baseline scenario.

Summing up, a (selective) mixed or narrow scope would be the most effective scope options to improve fairness and the level playing field in the interim period. At the same time, the narrow scope is also expected to have the best economic impact, notably as it minimises additional distortions, while still having broadly the same revenue potential as the mixed scope. Due to its simpler nature and clear link with user contributions, a narrow scope

is also the option that is expected to have the best impact on the compliance and administrative burden while being coherent with the comprehensive solution.

A tax on revenues from certain digital services (for example, from the sales of online advertising) received a larger support from respondents to the public consultation and Member States consultation than a tax on revenues generated from all digital services although the difference is not large (see summary in Annex 2).[66]

9.3.3 Application of a revenue threshold

Revenue threshold Yes/No

There are good reasons to apply some form of revenue threshold. The first important reason is that larger companies are more easily able to engage in aggressive tax planning, which was also one rationale for the CCCTB threshold and the threshold for country-by-country reporting (of EUR 750 million).[67] A second very important reason is that a certain scale is necessary for companies to benefit from user contributions and network effects. This is also why younger and smaller companies with innovative business models often go through a phase of building their user base, and would be less able to compete with the large marketplayers, who are relatively less impacted by the tax. These companies are also more often loss-making and could be particularly hit by a tax on gross revenue. In particular for the two business models covered in the preferred material scope of the tax, advertising and marketplaces/intermediaries, there are strong winner-takes-most dynamics. Benefitting from strong (direct and indirect) network effects, large market players have had a tendency to buy smaller competitors. Ultimately, this can hurt innovation and make for less dynamic developments.[68] Third, the turnover threshold would serve to ensure an acceptable cost-benefit ratio for the sake of proportionality of the measure. It would capture the most problematic situations in the interim period, keeping the measure simple with an acceptable cost-benefit ratio.

Revenue threshold on all revenue or only revenue from relevant digital services

A global turnover threshold on all revenue would make it easier for companies to determine whether they need to pay the tax. Since companies may not already record separately revenues from the services falling under the material scope of the new tax, and certainly smaller companies might not generally do so, a threshold on general turnover would greatly limit the extra burden imposed on companies and provide important legal certainty.

---

[66] 54% of the respondents to the public consultation and 10 Member States that responded to the targeted consultation believe that a tax on the revenues from certain digital services would solve the current problems to a great extent or somehow as compared to 46% of respondents and 8 Member States for the tax on revenues from digital services in a broader scope.

[67] See section 5.2 of SWD(2016) 341 final.

[68] See discussions on this point in UNCTAD (2017c, pages 12 and 81) and evidence on the rise of 'superstar firms', including in the digital sector, in Autor et al. (2017). The latter paper shows, by exploiting US firm level data, that if globalisation or technological changes advantage the most productive firms, industries become increasingly dominated by superstar firms with high profits and a low share of labour.

At the same time, it seems unreasonable to impose a tax on a company above the general threshold, which has only minor relevant digital services in the EU. For example, a large retailer might earn advertising revenues by placing online ads on its website for goods that are complements to its own goods but sold by a non-associated company. But if so, it may still not be worth including the revenues as long as they are relatively minor given the extra burden on companies and tax administrations this entails.

As a result, there are good reasons to operate both types of thresholds, each with their own rationale. The global turnover threshold would serve as a first, easily applicable filter to safely exclude, and provide legal certainty, for companies below the threshold. The specific threshold on turnover from relevant digital services would serve to exclude cases that are relatively small and where the benefit of taxing them, might not be justify the extra effort required by tax administrations or the companies. In addition, it would serve to exclude companies in more traditional sectors that have started to become more digitalised and may have relevant digital services revenues that still play a relatively minor part in their business operations.

9.3.4 Level of the thresholds

a. General turnover threshold

There are a number of relevant considerations for determining the level of the general turnover threshold. First, one should consider the additional burden imposed on companies. Second, the impact on tax revenue is a relevant. Third, the threshold should be such that the aim of preserving the single market in the interim period and improving the level playing field is well served. This should take into account that only companies of a certain scale provide digital services for which user contributions play a central role. Lastly, in setting the threshold one should be mindful of not hurting the development of the digital single market in the EU. Except for the second item, all of these considerations point to a rather high threshold, though it gives little guidance for the precise level.

A high threshold would allow concentrating more on firms with dominant market positions (see section 2.1.3 (d) on winner-takes-most dynamics)**.** Most of digital platforms tend to privilege fast growth and reinvest available funds, including those from separate business segments, to build a sizeable users base which, in the long term, will make the company profitable. Indeed, to survive, such business models need to build a large user base in the first phase of their life. Adopting a high threshold would allow preserving investment and growth dynamics in digital markets. In addition, a global turnover threshold of EUR 750 million would also be coherent with other proposals such as the CCCTB or the public country-by country reporting. The last feature is expected to contribute to a higher degree of compliance since companies beyond this threshold have detailed reporting obligations also on services in third countries.

Reliable data showing the full distribution of annual turnover by digital economy companies is not available, but some inference can be taken from general firm-level data (not specific to the digital economy). Table (10) shows that for the general economy in the EU

some two-thirds of turnover is captured by applying a revenue threshold of EUR 750 million. The data suggests that reducing the threshold to EUR 500 million could more than double the number of companies affected, with only about 7% increase in revenues. Reducing the turnover threshold to EUR 50 million could more than triple the number of companies affected, while increasing revenues by about 25%. Data provided in the last column of Table 12 also shows that the variation in the share of entities with EU or third country global ultimate owner is reasonably small. On the other hand, when moving from the 500 million threshold to 50 million, the share of purely domestic groups (with subsidiaries in only one Member State) increases considerably, more than doubling from 24.5% to 51%.

Table (10): Trade-off between potential revenue and number of companies

Consolidated turnover	Share of entities in the EU	Corresponding share of turnover	Share of groups active only domestically compared to total number of groups in this bracket[69]	Share of entities with global ultimate owner located in the EU-28
<= **EUR 50 million**	92.8%	19.9%	95.2%	88.0%
> **EUR 50 million**	7.2%	81.1%	51.0%	79.6%
> **EUR 500 million**	4.8%	68.6%	24.5%	78.4%
> **EUR 750 million**	2.0%	64.2%	19.2%	74.2%

Source: Adaptation of table 8 in the Impact Assessment accompanying the proposal for a Council Directive on Common Corporate Tax Base and a Common Consolidated Corporate Tax Base (SWD (2016)341) based on Bureau van Dijk Orbis data. In the CCCTB impact assessment, the share of groups was reported in column 1. Here we report the share of entities, which is more relevant for the purpose of this impact assessment.

b. Specific turnover threshold

A complementary specific threshold set at EU level on the annual revenues from the provision of taxable digital services could further limit the application to the most significant cases. The main argument for such a complementary threshold is that it would limit the application of the tax to cases where there is a significant level of revenues derived from a digital service ('the digital footprint') carried out in the EU.

In addition, the specific threshold could serve to target more effectively the most relevant cases. As explained in section 2.2.1, there is only a difficulty to tax profits or issues of corporate tax avoidance if a company is active in several jurisdictions (in the sense that its users are located in several jurisdictions). Based on the data presented in Table 10, and in principle for all the general turnover thresholds considered here, there still remains a sizeable

[69] This ratio has been computed for groups that have their global ultimate owner (GUO) in the EU. In other words, groups active in the EU but with GUO outside the EU are not reflected in this ratio. This ratio therefore gives an upper estimate of the share of purely domestic groups.

share of purely domestic groups captured by the measure. For large companies (exceeding the general revenue threshold) with significant revenues from online advertising and marketplaces/intermediary services it can reasonably be expected that they would not be purely domestic. This becomes even less likely if we apply a sizeable specific revenue threshold. A minimum bound could be EUR 10 million for the EU as a whole.

At the same time, for the tax not to be discriminatory, the specific revenue threshold should not be designed in a way that effectively excludes EU companies. In other words, very high revenue thresholds that would restrict the application of the new tax only to foreign business would not be allowed from a legal perspective. Based on the data presented in Table 10, it seems safe to conclude that for all the general revenue thresholds considered here, a sizeable share of EU entities would be captured by the measure. However, data on the biggest global companies with sizeable revenues from the relevant digital services suggests that a specific threshold above EUR 50 million could risk a de-facto discrimination. From the subset of 112 companies examined in this impact assessment, less than a quarter would have their main business activity falling under the scope of the new tax and have revenues in the EU exceeding EUR 50 million. Generally, the determination of the specific revenue threshold within the range of EUR 10-50 million should balance the risk of discrimination against the risk of damaging digitalisation of the EU economy.

9.3.5 Tax rate

The tax would need to be levied at a single rate. Compatibility with the freedom of establishment and free movement of services call for the tax to be levied at a single rate to not contradict the case law of the Court of Justice of the European Union (CJEU) (e.g. *Hervis Sport*[70]) that declared steeply progressive tax rates contrary to the freedom of establishment.

Two angles are particularly important in assessing different tax rate options: 1) the tax revenue potential and 2) the level of additional tax imposed on companies.

Tax revenue potential

Both a top-down and a bottom-up estimation of expected tax revenue conclude that the expected additional revenue collected from the tax would be rather moderate, but with significant growth potential over the next years. Table (11) summarises top-down revenue estimates for different tax rates. Underlying these estimates are data (and forecasts) from Statista on revenue earned from different type of digital services in the EU (Annex 8 provides the full details on the methodology). The forecasts for 2019 have been used for the estimates. For a tax of 1% on digital advertising services and services provided by online marketplaces/intermediaries applied to companies with a global consolidated turnover of more than EUR 750 million, the expected gross tax revenue is about EUR 1.6 billion, or about 0.4% of current corporate income tax revenue. If one assumed deductibility of the revenue tax from the local corporate tax base at the EU average corporate tax rate, these estimates would

[70] CJEU, judgment of 5 February 2014, *Hervis Sport*, C-385/12, ECLI:EU:C:2014:47.

reduce to a net figure of EUR 1.2 billion. This corresponds to an increase in total corporate income tax revenue of 0.3%. Three times as much is collected if the tax rate is 3% and five times as much at a tax rate of 5%. If one factors in annual growth rates between 6% and 17% (see section 9.3.1), one could expect these figures to grow by 20-60% over the next 3 years.

The top-down estimates are overall broadly consistent with the more elaborate bottom-up estimates; the latter however indicate that the top-down estimate for advertising is likely too low. These latter estimates are done on a sample of 112 companies, which almost all have global turnover above US $ 1 billion (around EUR 0.8 billion) and have publicly available financial accounts. They are classified in five separate categories (more detail on the methodology is provided in Annex 4). A major difference to the top down estimates is that the revenue of these companies was allocated to EU Member States based on web traffic statistics from the web domains operated by each company. This is a major improvement of the estimation since it would mirror a tax on revenues allocated across jurisdictions according to some statistic on user contributions. Overall this alternative methodology results in an estimate of about one third of the top down estimate (table (12) below). Given that this estimate is done only on a subsample the lower value is not surprising. For advertisement the bottom-up estimate shows that the top-down approach might underestimate potential revenues. For marketplaces/intermediaries, the top-down results might be on the high side, considering that the estimate from the bottom-up approach is 8 times higher. However, this might be explained by the bottom-up estimates are only based on the largest companies whose major business activity is based on advertising or being a marketplace/intermediary. It thus ignores the mixed business models that many companies have.

There is a certain trade-off between thresholds and the revenue potential, but the precise threshold, as long as it is high enough to safely exclude start-ups, is not very relevant. Using turnover data from the ORBIS data base from all companies (that is, irrespective of the type of business) indicates that reducing the turnover threshold to EUR 500 million would increase the revenue estimates by about 7%, but more than double the number of companies (entities) affected (Table (10) above). A reduction in the turnover threshold to EUR 50 million would increase revenue by about 25% and affect more than three times as many companies than under the EUR 750 million threshold. Given the fairly small revenue expected overall, lower thresholds have a very limited added value.

Table (11): Top down revenue estimates for a tax on gross revenue for the EU-28[71]

			in EUR billion	% of CIT revenue
Tax rate	**1%**	Advertising	0.3	0.1%
		Marketplace/intermediaries	1.3	0.3%
		*Cloud services**	0.3	0.1%

[71] Base year for the estimates is 2019. Without the UK all estimates would decrease by about 30%, but this high figure might be related to the underlying data being allocated to jurisdictions according to either where the company providing the service is located or where the revenue payment originates from.

	*Digital media**	0.1	0.03%
3%	Advertising	0.8	0.2%
	Marketplace/intermediaries	3.9	0.9%
	*Cloud services**	0.9	0.2%
	*Digital media**	0.4	0.1%
5%	Advertising	1.3	0.3%
	Marketplace/intermediaries	6.5	1.6%
	*Cloud services**	1.4	0.4%
	*Digital media**	0.6	0.2%

Source: European Commission, own computations based on data from Statista, Bureau van Dijk Orbis database, the Ameco database and Taxation Trends, 2017 edition. Notes: Estimates are based on a global revenue threshold of EUR 750 million and on corporate income tax collected in EU-28 in 2015 of 2.5% of GDP.
Note: Cloud services and digital media are not within the scope.

Table (12): Bottom-up revenue estimates for a tax on revenue from digital services (in EUR billion).

Tax rate	1%	3%	5%
Advertising	0.4	1.1	1.8
Marketplace/intermediary	0.2	0.5	0.8
Digital content	1.0	3.1	5.2

Source: European Commission, own computations based on data from UNCTAD (2017b), SimilarWeb and Bureau van Dijk Orbis database. Notes: Estimates are based on a set of 112 global multinational companies, including the top 100 digital MNEs identified in UNCTAD (2017b) that all earned revenue of more than $ 1 billion in 2015.

Level of additional tax imposed on companies

Since costs are not taken into account, the corresponding tax on profits implied by the tax on revenue, even at a low rate, could be substantial for individual companies. For example, a company that has EUR 100 of gross revenue and EUR 85 of (deductible) costs, has a mark-up of 15%.[72] If it pays a tax on gross revenue of 2%, it has to pay EUR 2 in revenue tax, which corresponds to a profit tax of 2/15 = 13%. If tax on revenues from digital services is deductible from the corporate tax base, the implied profit tax rate reduces to about 10%.[73]

The rate should be decided taking into account both the amount of revenue generated from the tax and possible distortions from a business perspective. Since the revenue

[72] A mark-up of 15% corresponds to the median we observe for a selection of 21 large companies with relevant digital activities.
[73] Based on the average EU statutory corporate income tax rate of 23%.

potential of a tax on revenues from digital advertising and from offering marketplace/intermediary services is in any case rather limited, imposing the tax with a high tax rate that might considerably hurt companies with lower profitability does not seem justified. Also, considering the fact that crediting of the tax would not be possible and that in some cases it may therefore lead to tax being paid in addition to corporate tax, the tax rate should not exceed 3%. On the other hand going below 1% would not justify (in terms of tax revenue gained) the additional burden of introducing a new tax.

9.3.6 Allocation of the tax

By allocating the tax according to the revenue earned in a jurisdiction, the tax would in many cases not capture well the local user contribution. The rationale for the interim solution is to be a good and simple interim proxy to deal with the most extreme cases where users contribute a very significant share of the value. Revenues from selling online advertising space will often not be earned in the jurisdiction where the user is located. For example, company A located in country X might buy advertising space from company B whose users are mostly located in B. In this case, an allocation of revenue according to the origin of the payment would attribute all revenue to country A, which is not where the users are located. A similar, though more complex, issue arises where the supply of services consists in the making available of a multi-sided electronic interface such as a marketplace, platform, portal or similar means to users, which allow users to find other users and to interact with them. Typically, users of both or all sides of the market are located in different Member States. But often multi-sided platforms apply reduced or no fees on the side of the network that is less developed or more elastic, but necessary for the company to run its activity (and where they want to grow or maintain a large user base). Allocating revenues solely to the Member States from where a payment has been made would be rather straightforward and easily trackable both for companies and tax administration. However, it would defeat the purpose of the solution that is to tax where the value contributed by users is created.

If using the location of the user to allocate tax base, it seems appropriate, where possible, to take into account the nature of the service for the proxy used to allocate the tax. Where the users of a digital service are located in different Member States, a possibility is to allocate the revenues derived from such a digital service to the Member States where the users are located in a proportional way. Rather than using the same allocation key for all services (e.g. simply the number of users), it seems more appropriate to take into account the nature of each of the digital services within the scope of the tax, so that the final allocation of taxing rights better reflects where the revenues have been generated through user contributions.

For online advertising services, in most of the cases the revenues are linked to the number of times an advertisement is displayed on a users' device (other allocation keys could be the number of times a user accesses a displayed advertisement).

Where the supply of services consists in the making available of an online platform, it seems that a distinction could be made between cases involving an underlying supply of services or goods directly between the users of the platform. In such scenarios, it is usually

the conclusion of that underlying supply the element which triggers the payment from the users to the platform in the form of a commission (but they can usually access the platform free of charge). Therefore, it seems that the number of users having concluded such underlying transactions could be the allocation key to be taken into account. However, if the revenues for the platform simply come from fees that the user have to pay in order to access the platform, it seems more suitable to allocate taxing rights to a Member State according to the number of users from that Member State with an account allowing them to access that online platform.

9.3.7 Relief of double taxation

Allowing the deduction of the new tax as a business expense from the corporate tax base would alleviate double taxation issues. The new tax is an expense for a company that arises in the course of it business. As such it is natural to allow it to be deducted from the corporate tax base. To see how this would affect taxation, take a company with relevant digital services that is tax resident in country A and pays all its corporate tax there. The user base of the company is spread evenly across countries A, B and C. After the new tax is introduced, the company pays the new tax on its revenues from digital services in Member States A, B and C. By making the tax deductible from the corporate tax base in A, the corporate tax liability in A is reduced.

In the absence of the possibility to credit the new tax against corporate income tax paid on the same revenue (or vice versa, see section 9.2.4)), allowing the deduction of the tax from the corporate tax base would contribute to a fairer outcome overall.

There is no risk of taxing the same service twice under the new tax. Revenue received for a certain type of service would always be accounted for only once. In the theoretically conceivable case that a revenue stream could be associated to, for example, an online advertising service and an online marketplace service, one should take precedent over the other to ensure that the same revenue cannot be taxed twice.

9.3.8 Collection of the tax

Withholding the tax on payments

Withholding the tax when a payment is issued may appear straightforward and the calculation relatively easy (Brauner and Pistone, 2017), but there are several shortcomings linked to this option. First, when the user of a service is not the payer of the transaction,[74] the collection is not feasible. As such, withholding the tax would make it very difficult to include business models indirectly generating revenues as in the social media and advertising model. Another shortcoming relates to the insufficient information held by the

[74] A concrete example is a situation where a social platform sells advertisement spaces to a company based in country A, on the basis of user data located in country B – the ad targeting the users in this country B. The location of the users will determine the allocation of the tax revenue, i.e. country B. However, in such case, the tax would be withheld in country A. This will make challenging enforcing the application and collection of the tax in particular with third countries.

collectors. For the financial intermediaries – the collectors – to be able to identify to which transaction the tax should apply, they would need to have information on the nature of the underlying supplies triggering the payment. This implies average-to-high set-up and recurrent costs for the collection system. The existence of thresholds to the application of the tax will further render complex the use of a withholding system, which is by nature based on individual transactions. Again, the collector does not have sufficient information whether the company receiving the payment is above the threshold. Last but not least, the increase in peer-to-peer payments (without intermediaries, for example using block-chain technology) as well as the use of virtual currencies may increase the possibility to escape this kind of tax. Considering all these difficulties, Schön (2017) concludes that "the technical and procedural difficulties for withholding taxation seem to be next to insurmountable".

Self-declaration system

Such a system implies relatively low set-up costs for both the taxpayers and the tax administrations. It is generally familiar to businesses as it is used, with positive experiences, for several other taxes, notably VAT and should be considered as the preferred/default solution, especially having in mind that the tax revenues collected will be relatively modest. Businesses would have to identify and declare to the tax authorities the gross revenues derived from its digital services for the purposes of calculating the amount due – for instance by submitting a tax return during the month following the one of the taxable services – and pay the tax due. However, there are risks of under-reporting, which need to be properly addressed by the tax administration through cross-checks with information from third parties (for example, users, statistic providers) and audits. An easy registration and payment feature in the form of a one-stop-shop for non-resident taxpayers could be envisaged, especially since a significant part of the tax revenue is expected to come from abroad.

9.3.9 Other economic impacts of a tax on revenues from digital services

Despite generally lower tax rates for revenue taxes, their distortionary effects can be significant if the tax is collected on business purchases. As the revenue tax base is broader than corporate income, revenue taxes generally involve lower tax rates. Hence, the change in real production incentives and in market equilibrium prices might be small. However, if a significant share of the revenue tax is collected on business purchases, the distortionary effects can be substantial even under a 'broad base and low rate' tax due to cascading effects, i.e. taxing the same items multiple times through the supply chain (Keen, 2013).

Cascading issues are expected to be of a relatively minor concern. First, because the tax would have a fairly narrow scope and because it affects business models with a large user base, it is relatively unlikely that several relevant transactions are taxed in a row. Only in the case of the advertising model, where this might happen, additional safeguard might need to be taken to reduce the likelihood of taxing more than once. In addition, cascading can be mitigated by eliminating intra-group / related party transactions, that is by levying the tax only on revenues from third parties (be it individuals or businesses).

Levying a tax on revenues can be efficient under a number of circumstances. In the presence of tax avoidance and evasion, the optimal tax base may optimally sacrifice some production efficiency (Emran and Stiglitz 2005; Gordon and Li 2009). Indeed, Best et al. (2015) study the trade-off between preserving production efficiency and preventing the corrosion of tax collection due to tax avoidance and evasion. Using administrative tax records on corporations in Pakistan, they find that a switch from profit taxation to turnover taxation (at a much lower tax rate) reduces evasion levels by up to 60–70 percent of corporate income and can increase corporate tax revenues by 74 percent without decreasing aggregate profits (hence representing a welfare gain). This suggests that a pure turnover tax can be better than a profit tax in terms of social welfare. The reason is that the loss of production efficiency is more than compensated for by the increase in revenue efficiency due to larger compliance. Furthermore, in cases where variable costs are negligible – as is often the case for online platforms that rely on advertising or act as marketplaces/intermediaries – marginal profits are similar to marginal revenues. It can therefore be efficient to levy a tax on revenue as a second-best option (France Stratégie, 2015). Moreover, given that the levels of data exploitation are often excessive, a tax on digital activities that exploit data can improve consumer welfare (Bloch and Demange, 2017).

There is scarce evidence on the pass-on effect of a new tax on turnover, but economic theory and experiences with VAT indicate that there is no uniform answer for the variety of digital services considered. As a proxy, one could look into the effect of an increase in the VAT rate on consumer prices. Economic theory suggests that the pass-through of a VAT increase on consumer prices is influenced by several factors: competition setting, the elasticity of demand and other factors (e.g country-specific ones). The higher the price elasticity of demand, the lower the degree to which a VAT rate increase can be shifted into final consumer prices. An increase in the VAT rate would thus translate to different degrees in higher consumer prices or reductions in suppliers' profit margins, depending on the market conditions. On average, for a rather broad range of goods and services, Benedek et al. (2015) found that only around one-third of a VAT change is passed on to consumer prices.[75] In the case of paper-based books and e-books, a Commission-ordered study documented a pass-on rate of one-half, which was however considered imprecise.[76]

For online retail, there is some evidence that consumers purchasing online are price sensitive and react strongly to price increases – this would limit the possibility for companies to pass additional tax onto consumer prices. Existing work on internet tax sensitivity dates back to the influential work of Goolsbee (2000). Sales taxes that are directly passed onto prices of products sold online have been shown to strongly reduce demand. More recently, Einav et al (2014), using data from eBay which accounts for 11-13 percent of

[75] See Benedek et al. (2015), p.16, https://www.imf.org/external/pubs/ft/wp/2015/wp15214.pdf.
[76] See European Commission (2012) – Economic Study on Publications on all Physical Means of Support and Electronic Publications in the context of VAT, p. 98 (https://ec.europa.eu/taxation_customs/sites/taxation/files/docs/body/economic_study_vat_on_publications_final report.pdf). The pass-on rates vary also country-wise – op. cit., pp. 95-96.

Internet retail commerce in the U.S., estimate that on average, the application of a 10 percent sales tax reduces purchases by 15 percent among buyers who have clicked on an item.

9.3.10 Administrative burden and compliance costs

Businesses must identify gross revenues resulting from supplying digital services and relevant user statistics, requiring additional reporting requirements. This could require adapting the financial reporting to split revenues issued from digital services with revenues issued from non-digital services. The business must declare and pay the tax to the Member State that has the taxing right (for example, where the users are located). The threshold proposed will restrict the number of businesses subject to the tax. In particular, it will have no impact on SMEs. Since it might cover several different business models even for the same enterprise, taxpayers will have to further allocate internally revenues to various proxies (for example, number of active users and monetisation by user, local domain names, IP addresses,[77] number of visits, number of clicks, number of ad displays, location of the accommodation, transport, entertainment services provision) according to the requirements to be laid down in the text of the EU directive. In doing so, the data collected from the user needs to be limited to data indicating the Member State in which they are located, without allowing for identification of the user, in accordance with Regulation (EU) No 2016/679 on data protection. Whenever possible, personal data shall be rendered anonymous.

Although a quantitative estimate of the cost of collecting data is not available, the type of data-driven businesses subject to the new tax would in most cases be able to retrieve the data without much difficulty. The EU's consumer and marketing legislation already require information obligations about the provided services, the identity of the provider, the contract conclusion and its execution. Also, the examples of voluntary cooperation between some of the largest platforms and the tax administrations to exchange information related to the underlying services the platform facilitate show that the information is available and can be processed at a limited cost (e.g. Uber with the Estonian tax authorities or Airbnb with major cities for the tourist tax) (Dondena & IHS, 2017). The draft regulation to ban unjustified geo-blocking between member states agreed by the Council in November 2016 is an additional example that locating services is not issue and common practice. Finally, traffic and engagement metrics are accessible online allowing to benchmark websites in terms of overall visits, time on site, bounce rate and page views per visit. An example is *SimilarWeb*.

Total additional tax compliance costs are expected to be rather limited, taking into account the fairly simple structure of the tax. A forthcoming study on tax compliance costs estimates that total indirect compliance costs for large enterprises amount to about 0.1% of turnover (KPMG and GFK, 2018). This provides an order of magnitude in perspective of the new tax. Given that the tax would be applied on gross revenues without the possibility to

[77] An Internet Protocol address (IP address) is a numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication (developed as early as the 1980s). While some of these proxies can be subject to errors, manipulation or abuse by end-users or third parties, they still constitute a reliable means to locate the user.

deduct any costs, the compliance burden in percentage of turnover should be rather substantially below the estimated 0.1% of turnover.

The compliance costs and administrative burden for non-resident taxpayers would be slightly higher and also the assessment and collection will be more challenging compared to resident ones. The use of a one-stop-shop would ensure relatively low overall costs[78]. These costs could be further reduced by means of harmonising registration, filing, accounting, data/record maintenance and payment requirements, for example by means of delegated acts.

For national tax administration, the interim solution has initial set up costs limited to reporting adjustments, declaration and payment (in terms of both procedures and IT systems) and the corresponding staff and training costs. The recurrent costs will cover maintenance and IT systems, staff and continuous training. The use of a one stop shop for the preferred interim solution would lower the administrative costs for the tax administrations and, at the same time, allow for better compliance and higher tax revenues collected from abroad. A first evaluation of the mini-one stop shop in place in EU Member States reports an average IT cost of about EUR 2.5 million for a Member State to implement the portal. Such estimate could be a solid basis to estimate the IT cost that a similar system would imply[79].

Also, the administrative costs related to audio-visual levies as identified in table (6) on unilateral measures taken by Member States could be a reliable basis to estimate further the administrative cost. Although the material scope may differ from the interim options, they are levies set on revenues from certain digital activities. Parallel in the functioning and administration may be drawn. The impact assessment of a proposal for an updated audio-visual media services directive estimated the administrative costs (borne both by businesses and regulators) associated with the audio-visual levy set at an average rate of 2% on revenues at an upper value of 600 thousand EUR for the entire EU (and all the actors).[80]

The implementation of the tax would be relatively challenging for tax administrations in relation to taxpayers that are not resident. Tax administrations can make use of the administrative tools available at EU[81] or OECD[82] levels for both the interim and comprehensive solutions.

[78] For instance, the overall costs that businesses face when engaging in cross-border B2C e-Commerce of electronic services under the 2015 place of supply rules (but not using the mini one-stop-shop/MOSS) amount to about an average of EUR 5 200 per business per each Member State they sell to cross-border, which is less than the overall average cost for businesses engaged in cross border e-Commerce (around EUR 8 000). By comparison, the overall costs that businesses face when engaging in similar activities using the MOSS amount to an average of EUR 2 200 per business per year. For details, see https://ec.europa.eu/taxation_customs/sites/taxation/files/swd_2016_379.pdf.

[79] https://ec.europa.eu/taxation_customs/sites/taxation/files/swd_2016_379.pdf

[80] See https://ec.europa.eu/digital-single-market/en/news/impact-assessment-accompanying-proposal-updated-audiovisual-media-services-directive

[81] Administrative cooperation in the field of (direct) taxation - Council Directive 2011/16/EU and mutual assistance in the field of recovery of claims - Council Directive 2010/24/EU and Commission Implementing Regulation (EU) No 1189/2011.

9.3.11 Coherence and articulation with the comprehensive solution

With a narrow scope that is based on the centrality of the user contribution for the service provided, the tax would be most coherent with the comprehensive approach. Given that the user contribution is so central for online advertising and marketplaces/intermediaries, the result of an allocation of the tax according to user location is that the outcome of the interim tax would well approximate the outcome of the comprehensive solution.

The new tax on digital services would apply only until the comprehensive solution is in place. After significant progress towards implementation of the comprehensive solution, i.e. the Directive on digital permanent establishment and profit allocation rules, adoption of the adapted CCCTB and Recommendation to revise double tax treaties, the interim solution would cease to exist. As such, there may be elements of the comprehensive solution that are in place at the same time as the interim solution. But there is no risk of applying two taxes at once, as the comprehensive solution does not imply a new tax, but a re-allocation of corporate taxation rights.

9.4 Preferred interim option

9.4.1 Conclusion and description of the preferred interim solution

The preferred interim solution is a Directive on a common system of a tax on certain digital services. To ensure simplicity and coherence with the comprehensive solution, it would be a tax with a narrow scope, levied on the gross revenues of a business resulting from the exploitation of digital activities characterised by user value creation, namely advertising revenue and revenue from services provided by online marketplaces/intermediaries. To be not discriminatory, the tax would apply both to non-resident and domestic companies and both to domestic and cross-border transactions.

To ensure proportionality of the measure, avoid hurting the digitalisation of the economy and not be discriminatory against non-resident companies, the tax would apply to businesses being above both of two thresholds and at a single rate. The tax would apply to businesses being above both of two thresholds:

1. an annual worldwide total revenue above EUR 750 million, at the level of the multinational group to which the business belong, if applicable.
2. revenue from the provision of digital services above a threshold of EUR 10-50 million

[82] The Multilateral Convention on Mutual Administrative Assistance in Tax Matters, the OECD Model Tax Convention Article 26 (Information Exchange) and the OECD Model Agreement on Exchange of Information in Tax Matters.

There would be a single rate across the EU in the region 1-3%. It would not be feasible to make the tax creditable, but to alleviate double taxation it should be deductible from the corporate tax base.

It is not rare that companies run several business activities/services in parallel and mix business models. In such cases, revenues to take into account for the specific revenue threshold and the taxable base would be limited to those falling under the material scope. For example, a company X running in parallel a business segment A providing digital content in exchange for a fee and a business segment B providing access to content for free but financed through the sale of advertising space might be subject to the interim solution. Only the revenue generated through the business segment B would be taken into consideration for the purpose of the tax.

To align more the locations of value creation and taxation, the principle for assigning taxing rights should also be based on the location where the user has contributed to the value creation. Several attribution keys are possible, but essentially this will require some sort of apportionment of revenue across jurisdictions based on geographical user statistics. For the making available of multi-sided digital platforms which act as intermediaries that facilitate underlying transactions directly between users, the allocation of taxable revenues should be carried out on the basis of the place from where the users having concluded such a transaction are. Specific rules could be envisaged depending on the type of underlying transaction concluded in such a marketplace (e.g. accommodation services involving immovable property, where taxing rights are assigned to the jurisdiction where the property is), but the risk of increasing the complexity of the tax by having many place of taxation rules would need to be taken into account. For other intermediation services where revenues are typically obtained through periodic payments after having registered or opened an account, it is more appropriate to take into account the place from where the users have opened an account. As regards the transmission of data collected about users, the allocation of taxable revenues could take into account the place where a user has generated the data which will be sold.

A simplification mechanism should be made available, based on the one-stop-shop model, which would be particularly important for non-resident taxpayers. . The taxpayer can register in the one-stop-shop and declare and pay the tax due in several Member States via one Member State.

Annex 12 provides concrete examples of how the tax would work in practice.

9.4.2 Subsidiarity, proportionality and compatibility with EU law

Until the implementation of a common and coordinated action at EU level, which may take some time to agree, Member States introduce unilateral measures to address the challenges of taxing the digital economy companies. As it can be observed in Table (6) of Section 9.1, some of such measures, which can be of a very diverse nature, are already in place. EU action is necessary in order to mitigate the fragmentation of the single market and the creation of distortions of competition within the EU due to the adoption of such unilateral actions at national level.

The preferred option would be consistent with the principle of proportionality, that is, it does not go beyond what is necessary to meet the objectives of the Treaties, in particular the smooth functioning of the single market. As follows from the subsidiarity test, it is not possible for Member States to address the problem without hampering the single market. Moreover, the present proposal aims at setting a common structure of the tax, narrowly defined with thresholds not to unjustifiably hurt companies, while leaving sufficient margin of manoeuvre for Member States when it comes to actual setting of certain administrative aspects related to the measure, such as accounting and reporting obligations, and also concerning the prevention of evasion, avoidance, and abuse.

Compatibility with EU law (notably fundamental freedoms of the TFEU and with VAT law) are discussed in Annex 11.

10 HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

10.1 Monitoring arrangements

The Commission will monitor the implementation of the legal proposal and its application in close cooperation with the Member States. Monitoring in a continuous and systematic way will allow identifying whether the policy proposal is applied as expected and addressing implementation problems in a timely manner. Tables (13) and (14) suggest a range of monitoring indicators derived from operational objectives for the comprehensive and the interim solutions. Collection of factual data of the suggested monitoring indicators will also provide the basis for the future evaluation of the proposal. In compliance with the principle of subsidiarity, the relevant information should be gathered primarily by the Member States' tax administrations when data on tax compliance and the use of the system is concerned.

Table (13): Potential monitoring indicators for the preferred comprehensive solution

General Objective	Operational Objective	Indicator
Sustainability of public finances of EU Member States and the EU	Raising additional revenues	Revenues collected annually by national tax administrations from the allocation to the digital parameter in the profit allocation formula. Number of digital permanent establishments created Increase in profits booked through digital permanent establishments Contextual information: residence, sector and size of the company
Integrity and proper functioning of the single market	Ensuring certainty and stable tax frameworks in the single market Stopping ongoing fragmentation of the Single market through the	Number of unilateral measures related to digital taxation and applying to EU tax payers/different from the interim solution still in place in EU Member States

	multiplication of tax schemes	
Ensuring fairness and a level playing field	Ensuring that similar activities/firms receive similar tax treatment	Evolution of the effective corporate income tax rate: - between similar companies with and without digital permanent establishments - between EU and non-EU companies Effective tax rates of companies subject to mandatory application of the comprehensive solution relative to companies not applying the comprehensive solution with similar characteristics
Fight against aggressive tax planning	Ensuring that profits are taxed where the value is created	Alignment between geographical location of users (as measured by web visit/data from Member States) and location of profits Reallocation of profits between Member States

Table (14): Potential monitoring indicators for the preferred interim solution

General Objective	Operational Objective	Indicator
Sustainability of public finances of EU Member States and the EU	Raising annual additional revenues	Revenues collected annually by national tax administrations, from the interim tax on digital services Contextual information: residence, sector and size of the company
Integrity and proper functioning of the single market	Ensuring certainty and stable tax frameworks in the Single market Stopping ongoing fragmentation of the Single market through the multiplication of tax schemes	Number of unilateral measures related to digital taxation in EU Member States - creation - abolition/harmonisation
Ensuring fairness and a level playing field	Ensuring that significant digital services relying on user participation are taxed/ Taxing user-based value creation	Alignment between geographical location of users (as measured by web visit/data from Member States) and location of tax base Change in the ratio web visit/profits
Fight against aggressive tax planning	n/a	n/a

In addition, for the recommendation, the number of double taxation treaties that have been negotiated or are under renegotiation should be monitored.

10.2 Evaluation

The evaluation of the proposals should assess the extent to which the outlined objectives have been met. It will also assess the related administrative and regulatory burden. Considering the

multiple approaches for the solutions and allowing for impacts to materialise and to be observed after the implementation of the policy, an evaluation should be carried out five years after the implementation of each stream of the proposal (i.e. the interim solution, the comprehensive solution and the recommendation). The Commission will report on the evaluation results in the form of an evaluation report.

ANNEX 1: PROCEDURAL INFORMATION

1. Lead DG, Decide Planning/CWP references

The lead Directorate General is the Directorate General for Taxation and the Customs Union (DG TAXUD).

This initiative got the following political agreements:
- Agenda Planning: Fair taxation of the digital economy (PLAN/2017/1873.)
- Inception Impact Assessment: Fair taxation of the digital economy (Ref. Ares(2017)5253058 - 27/10/2017)
- Commission Work Programme 2018 Annex I, initiative 7

2. Organisation and timing

The works for this initiative have been launched in September 2017.

The following Directorates General were invited to the Inter-Service Steering Group (ISSG): BUDG, CNECT, COMM, COMP, DGT, ECFIN, FISMA, GROW, JRC, OLAF, SJ, TRADE, EPSC.

The Inter-Service Steering Group awas chaired by the Secretariat General.

The Inter-Service Steering Group has met for a number of 4 times to discuss the file. The last meeting of the steering group took place on the 10th of January 2018.

3. Consultation of the RSB

The Impact Assessment report was examined by the Regulatory Scrutiny Board on 07/02/2018.

The Board issued a positive opinion with reservations, on the 9th of February 2018.

According to the opinion:

"The Board acknowledges the good and clear presentation of the report. However, the report contains significant shortcomings that need to be addressed. As a result, the Board expresses reservations and gives a positive opinion only on the understanding that the report shall be adjusted in order to integrate the Board's recommendations on the following key aspects:
(1) The report does not clearly explain the context of the initiative and the rationale for a two-pronged approach. It does not show the urgency for the EU to act, before global progress is achieved at the OECD/G20 level.
(2) The projection of the implications of the baseline scenario is incomplete; the content of the options is not sufficiently detailed. And the transition between the short-term and long-term solutions lacks clarity.

(3) The analysis of impacts is insufficiently developed, especially as regards the thresholds, compliance costs and thus does not demonstrate the proportionality of the preferred option.

Following the comments received from the Board, the Impact Assesment report has been significantly revised, in order to address the issues raised:

(1) The two-step approach as well as the urgency of the EU action have been better explained and the relevant sections have been expanded.
(2) The baseline has been expanded in order to take into account all the relevant initiatives currently adopted. The switch from the interim solution to the comprehnesive as well as the consequences have been better described.
(3) The analysis of impacts sections, in particular the administrative and compliance costs, have been further develped both for the comprehensive solution as well as the interim one.

The current version of the report thus contains the revised text in which the Board's comments were addressed.

ANNEX 2: STAKEHOLDER CONSULTATION

Fair taxation of the digital economy proposal

Synopsis report

Consultation activities carried out

The consultation strategy has focused on three main groups of stakeholders: Member States' tax administrations, businesses and citizens. The two main consultation activities consisted in the open public consultation and a targeted survey sent to all EU tax administrations. The members of the Platform for Tax Good Governance (made up of all EU tax authorities and 15 organizations representing business, civil society and tax practitioners) have also been informed about this initiative and their opinions sought out. In addition to these, stakeholders had the opportunity to give feedback on the inception impact assessment and send their position papers directly to the dedicated functional mailbox for this initiative.

Stakeholder participation

The open public consultation has been launched on the 26th of October 2017 and was closed on the 3rd of January 2018. Given the short timeline of the overall project, a derogation from the 3 month period mentioned in the Better Regulation Guidelines was granted by the Secretariat General of the European Commission. The consultation was available in all official EU languages (except Gaelic).

There were a total of **446 replies** to the public consultation and **121** positions papers uploaded along with the replies. The open public consultation was published on the general consultation website of the European Commission and has been advertised through newsletters, at the meeting of the Platform for Tax Good Governance and through a Twitter campaign.

A separate, targeted consultation was carried out in parallel to the open public consultation. The consultation ran from the 23rd of November until the 20th of December and was sent to all the national tax administration in the EU. Out of 28 Member States, **21** national tax administrations have replied directly to this consultation and 1 Member State chose to send its contribution in the form of a position paper.

A number of **14** position papers have been sent directly to the functional mailbox for this initiative.

2 contributions have been received as part of the feedback mechanism on the inception impact assessment.

CONSULTATION RESULTS

1. Open public consultation

a. Description of the respondents

The vast majority of contributions came from respondents based in the EU 28. Only 16 contributions from outside the EU have been submitted. The top 6 countries, based on the location of the respondent were: Spain (75 replies) and Germany (75 replies), Italy (45 replies), Belgium (38 replies) and France (30 replies) and the United Kingdom (30 replies).

Based on the language used for replying to the questionnaire, most of the respondents chose the English version (315 replies) followed by Spanish (42 replies), German (39 replies), French (19 replies) and Italian (17 replies). The remaining 14 replies were in the other official EU languages.

Table (1). Type of respondents to the public consultation

		Answers	Ratio
individual		218	48.88 %
a business		81	18.16 %
a business organisation (e.g. a trade association) or advisory body (e.g law firm, consultancy)		105	23.54 %
a civil society organisation		10	2.24 %
an academic/research institution		12	2.69 %
a public authority		2	0.45 %
an international organisation		1	0.22 %
other (please specify)		15	3.36 %
No Answer		2	0.45 %

Based on the type of respondent, as can be seen in the figure above, 49% of replies came from individuals, 24% from business organizations such as trade associations or consultancies and 18 % came from businesses. The remaining 10% is spread between civil society organizations (10 replies), academic/research institutions (12 replies), public authorities (2 replies), international organizations (1 reply) and other types of organizations (14).

The majority of businesses that replied to the survey were Small and Medium Enterprises (SMEs): 41, while the remaining 38 replies came from large enterprises, having over 250 employees. About two thirds of companies (55 respondents out of 79) operate in more than one country.

b. **Current problems**

In this section the respondents were asked about the current rules of international taxation and their applicability for the digital economy. The respondents were also asked to choose the 3 main challenges that digitalization brings for companies and tax authorities. They were quizzed about the need to act and the most appropriate level for action. The last part of this section asked the respondents to rank the objectives that the European Commission should pursue in relation to any possible future policy action.

65 % of respondents (291 replies) believe that the current international tax rules are to a little extent or not at all adapted to the digital economy. 30 % of respondents (136 replies) were of the opposite opinion, that the rules are adapted to some or to a great extent. The remainder had either no opinion or didn't know.

A series of 5 statements about the current tax rules were tested, in order to see to what extent they could be used to describe the existing situation.

1. The current international taxation rules do not allow for fair competition between traditional and digital companies. 65 % of respondents agreed or strongly agreed with this statement, while 20 % of respondents disagreed or strongly disagreed with it.
2. The current situation could push some Member States toward adopting uncoordinated measures that would lead to the fragmentation of the Single market. 82% of respondents agreed or strongly agreed with this statement, while only 6 % of respondents disagreed or strongly disagreed with it.
3. The current international taxation rules allow digital companies to benefit from certain tax regimes and push down their tax contributions. 73% of respondents agreed or strongly agreed with this statement, while 15 % of respondents disagreed or strongly disagreed with it.
4. States are not able to collect taxes on the value that some digital companies create on their territory. 67% of respondents agreed or strongly agreed with this statement, while 18 % of respondents disagreed or strongly disagreed with it.
5. Social fairness is impacted because some digital companies do not pay their fair share of taxes. The same numbers appear for the last of the 5 statements: 67% of respondents agreed or strongly agreed with this statement, while 18 % of respondents disagreed or strongly disagreed with it.

The main challenges that the digital economy poses for businesses are:

- Uncertainty related to tax obligations when operating in different countries (selected by 63 % of respondents);
- Uncertainty on the exact allocation per jurisdiction of the business' value creation (selected by 61 % of respondents);
- Uncertainty related to future taxation solutions for new business models (selected by 44 % of respondents).
- The respondents were also given the possibility to name other challenges for companies, and some of the most quoted were: "risk of overregulation, especially for EU-based businesses. Already too complex taxation scheme exist.", "a huge risk of double taxation; unilateral EU-action will trigger countermeasures by trade partners" and "the main challenge is to devise simple, quantifiable and easy to administer keys to allocate profits".

The main challenges that the digital economy poses for national tax systems are:

- Companies can access customers in national markets without being effectively taxed in the market country (selected by 64 % of respondents);
- Unfair advantage of companies operating cross-border over local companies, due to lower taxation (selected by 61 % of respondents);
- Difficulties to establish the tax liability of a company due to the complex value chain (selected by 55 % of respondents).
- The respondents were also given the possibility to name other challenges for national tax systems, and some of the most quoted were: "ascertaining and policing the tax liability of companies in other countries", "keeping pace with advances in ways of doing business given continuing technological evolution", "OECD guidelines and European Union's fundamental freedoms should be respected by governments."

An overwhelming majority of 82% of respondents (366 replies) believe that something should be done about the current international tax rules in what concerns the digital economy. When they were asked to identify the most appropriate level for action, 41% (182 replies) indicated that they would like to see action taken at international level, while 33 % (146 replies) preferred action to be taken at the European Union level. Only 2% (8 replies) believe that the national level is an adequate one for action concerning the digital economy.

A series of 4 objectives have been identified by the European Commission. They were tested with the respondents, who were asked to rank them and choose the most important ones.

- The objective of **ensuring a level playing field so that all companies pay their fair share of taxes (whether large/small, more/less digitalized, EU/non-EU based**) was considered to be the most important one by a number of 176 respondents.
- Ranked second was the objective of **ensuring a competitive tax environment in the EU for the scaling-up of start-ups and all business to flourish** chosen by 153 respondents**.**
- Ranked third, the objective of ensuring **the sustainability of the corporation tax system and the tax bases of EU Member States** was selected by 129 respondents.
- Ranked 4 was the objective of ensuring the **integrity and proper functioning of the Single market** with 115 replies**.**

The respondents also had the possibility to suggest other objectives that should be pursued. Some of the other objectives suggested have been : "increased transparency on data use and incomes derived", "social fairness", "reducing all regulative and tax burdens for all companies" or "global level playing field for all companies (big & small) and competitive tax environment in the EU"

c. Possible solutions

The section on possible solutions was centered around the two sets of options which have been identified early on in the policy design stage: the short term, interim solutions and the long term, comprehensive solutions and their possible impacts.

The two step approach (namely the interim option first, followed by the comprehensive option) was tested with the respondents. 54% (239 replies) of them believed that an interim

option should be adopted until a more comprehensive solution is reached, while 35 % (154) did not agree to that.

Next, the respondents were asked to identify to what extent each of the short term, interim solutions would solve current problems related to the international taxation rules for the digital economy.

- **Tax on revenues from digital activities:** Introduce a tax based on revenues generated from "digital activities": 45 % of respondents (201 replies) believe this option would solve the current problems to a great extent or somehow, while 41% of respondents (181 replies) believed that this option would not solve the problems at all or only to a little extent.
- **Withholding tax on certain types of digital transactions**: Introduce a withholding tax based on payments to non-resident providers of goods/services ordered online: 45 % of respondents (202 replies) believe this option would solve the current problems to a great extent or somehow, while 39% of respondents (172 replies) believed that this option would not solve the problems at all or only to a little extent.
- **Tax on revenues from certain digital services**: Introduce a tax based on the revenue from digital transactions concluded remotely with a non-resident entity that has a significant economic presence (e.g. revenue from the sale of online advertising): 53 % of respondents (238 replies) believe this option would solve the current problems to a great extent or somehow, while 34% of respondents (151 replies) believed that this option would not solve the problems at all or only to a little extent.
- **Digital transaction tax:** Introduce a tax that applies early in the value creation process (collection of personal and other data): 33 % of respondents (147 replies) believe this option would solve the current problems to a great extent or somehow, while 51% of respondents (228 replies) believed that this option would not solve the problems at all or only to a little extent.
- Other options that have been identified by the respondents have been: “tax on quantity of internet traffic in a MS, tax on advertising profits and fines/taxes for geoblocking, depending on the legislation in the area (fines if not complied with, fees if allowed)”, “only a coordinated approach in line with OECD principles can solve both: An appropriate taxation of digitalized business models and preventing double taxation.”,” tax data per volume provided in streamed or downloaded content, for instance YouTube provides 20 gigabytes worth of songs to a user in EU, charge tax per megabyte, (Google's revenue is from ads)”

Next, the respondents were asked to identify to what extent each of the long term, comprehensive solutions would solve current problems related to the international taxation rules for the digital economy.

- **Modify the Common Consolidated Corporate Tax Base proposal**: Implement new permanent establishment and profit attribution rules through modifications to the CCCTB proposal: 44 % of respondents (195 replies) believe this option would solve the current problems to a great extent or somehow, while 27% of respondents (120 replies) believed that this option would not solve the problems at all or only to a little extent.
- **"Digital presence in the EU" proposal**: Implement new EU rules for permanent establishment and profit attribution to capture digital activities of businesses in a stand-alone EU Directive: 58 % of respondents (259 replies) believe this option would

solve the current problems to a great extent or somehow, while 28% of respondents (123 replies) believed that this option would not solve the problems at all or only to a little extent.

- **Destination-based corporate tax**: Introduce the destination-principle to corporate taxation, according to which the jurisdiction to tax is based on the location of the consumer: 54 % of respondents (241 replies) believe this option would solve the current problems to a great extent or somehow, while 34% of respondents (152 replies) believed that this option would not solve the problems at all or only to a little extent.
- **Unitary tax**: Introduce a tax on a share of the world profit of digital companies which would be attributed to each country on the basis of the percentage of revenue earned in that country: 50 % of respondents (221 replies) believe this option would solve the current problems to a great extent or somehow, while 37% of respondents (165 replies) believed that this option would not solve the problems at all or only to a little extent.
- **Residence tax base with destination tax rate**: Introduce a system where profits of a company are declared and taxed in the Member State of establishment (as is the case today), but the applicable rate is the turnover-weighted average of the tax rates of the countries where the turnover is generated: 28 % of respondents (124 replies) believe this option would solve the current problems to a great extent or somehow, while 53% of respondents (235 replies) believed that this option would not solve the problems at all or only to a little extent.
- Other options that have been identified by the respondents have been: "it would be useful to use the definition of big data to individuate also the market and the value of the transactions non-resident company", "the tax must be paid immediately with the transaction to consumer.", "different solutions for taxing revenues coming from final consumer or from companies may be needed. Clients that are companies may establish themselves in a low tax country more easily than citizens."

To sum up the preference of respondents for the different options, the figure below presents he results, in a very simplified manner. Those who "somehow" believe or believe "to a great extent" that an option would solve the current problems have been considered supporters of the respective option and included under the "For" column. Those who believe "to a little extent" or "not at all" that an option would solve the current problems have been considered opponents of the respective option and included under the "Against" column.

Table (2). Respondents' preferences for the options – open public consultation

Option name	For	Against	No opinion
Interim, temporary solutions			
Tax on revenues from digital activities	45 % of respondents	41% of respondents	14% of respondents
Withholding tax on certain types of digital transactions	45 % of respondents	39% of respondents	16% of respondents
Tax on revenues from certain digital services	53 % of respondents	34% of respondents	13% of respondents
Digital transaction	33 % of respondents	51% of respondents	16% of respondents

tax			
Long term, comprehensive solutions			
Modify the Common Consolidated Corporate Tax Base proposal	44 % of respondents	27% of respondents	29% of respondents
“Digital presence in the EU" proposal	58 % of respondents	28% of respondents	14% of respondents
Destination-based corporate tax	54 % of respondents	34% of respondents	12% of respondents
Unitary tax	50 % of respondents	37% of respondents	13% of respondents
Residence tax base with destination tax rate	28 % of respondents	53% of respondents	19% of respondents

The final question was if Small and Medium Enterprises (SMEs) should be exempt from a possible digital tax. There was no clear split between those for and those against such an exemption. 167 respondents (38%) believed that they should be exempted, while 173 respondents (representing 39%) opposed this.

All respondents were given the possibility to attach a position paper to better express their views and support their arguments. A total of 121 position papers have been uploaded. Their content ranges from only a few lines expressing the author's views to full-fledged reports a few tens of pages long. The views expressed vary to a very large extent and show that there is no consensus among stakeholders on what should be done next. There are however a few points which have strongly came out of the positions papers received, and which have been integrated in the Commission analysis:

- the digital economy should not be ring fenced from the rest of the economy. As one respondent put it: "there is no such thing as the *digital economy*. The global economy is digital and such be treated as such for tax purposes".
- the solutions chosen should not impose any administrative or compliance burden as they might risk to "disproportionately affect the ability of smaller enterprises to carry out and expand their business domestically and cross-border".

2. Member States’ questionnaire

a. Description of the respondents

The questionnaire was structured into two parts: the first one was addressed to those administrations which have introduced laws that specifically target the digital economy. The second part included the same questions that were used in the open public consultation, with slight adaptations, whenever appropriate.

Only two Member State replied to the questions on their legislation in place targeting digital companies. One of those has adopted a law that entered into force only recently, in September 2017. In the case of the other state, the law would only come into effect in 2019. None of the remaining 19 Member States that answered had in place legislation targeted at digital companies.

When asked about their intention of introducing legislation to target the digital economy, 3 states replied positively, 12 replied negatively and 6 states were not decided.

b. Current problems

Similar to the open public consultation, the national administrations were asked about the current rules of international taxation and their applicability for the digital economy. They were also asked to choose the 3 main challenges that digitalization brings for companies and their tax authorities. They were quizzed about the need to act and the most appropriate level for action. The last part of this section asked the respondents to rank the objectives that the European Commission should pursue in relation to any possible future policy action.

The majority of countries (13) believed that the current rules are not at all or only to a little extent adapted to the digital economy. The remaining 8 countries believed that the rules are to some extent or to a great extent adapted to the digital economy.

A series of 5 statements about the current tax rules were tested, in order to see to what extent they could be used to describe the existing situation.

1. The current international taxation rules do not allow for fair competition between traditional and digital companies. 13 countries agreed or strongly agreed with this statement, while 8 countries disagreed or strongly disagreed with it.
2. The current situation could push some Member States toward adopting uncoordinated measures that would lead to the fragmentation of the Single market. 15 countries agreed or strongly agreed with this statement, 1 country disagreed, 4 countries were neutral and one had no opinion.
3. The current international taxation rules allow digital companies to benefit from certain tax regimes and push down their tax contributions. 14 countries agreed or strongly agreed with this statement, 1 country disagreed and 6 countries were neutral.
4. States are not able to collect taxes on the value that some digital companies create on their territory. 15 countries agreed or strongly agreed with this statement, 2 countries disagreed with it, 3 were neutral and 1 had no opinion.
5. Social fairness is impacted because some digital companies do not pay their fair share of taxes. 14 countries agreed or strongly agreed with this statement, 2 countries disagreed with it, 4 were neutral and 1 had no opinion.

An overwhelming majority of states (16) believe that something should be done about the current international tax rules in what concerns the digital economy. The remaining 5 states had no opinion on this issue.

When they were asked to identify the most appropriate level for action, only one country believed that the EU level is the appropriate one ("as there is the Single market"), while the remaining 20 respondents believed that the international level is the right one.

The main challenges that the digital economy poses for businesses are:

- Valuation of data / exploitation of data (i.e. quantifying how much the information that a company has about its clients is worth) selected by 13 respondents;
- Uncertainty on the exact allocation per jurisdiction of the business' value creation (selected by 13 respondents);
- Uncertainty related to tax obligations when operating in different countries (selected by 12 respondents);

- One state mentioned one other challenge for companies: "for business, the main challenge is double taxation that may potentially arise. This double taxation can arise due to different approaches being adopted by different countries both in terms of interpretation or from the introduction of new taxes either unilaterally or multilaterally where those taxes sit outside the existing corporation tax framework".

The main challenges that the digital economy poses for national tax systems are:

- Difficulties to establish the tax liability of a company due to the complex value chain (selected by 15 respondents);
- Businesses acquire new sources of revenue (e.g. through exploitation of data) which are not properly taxed (selected by 14 respondents);
- Companies can access customers in national markets without being effectively taxed in the market country (selected by 10 respondents);

The respondents were also given the possibility to name other challenges for national tax systems, and they quoted: "a significant challenge is the possibility of double non-taxation. This challenge is what led to the BEPS project and related EU action, such as agreement of ATAD. Given that implementation of these significant agreements has not yet taken place, it remains to be seen to what extent this risk/challenge will remain after BEPS Implementation", "asymmetric level of information between global MNEs vs national tax authorities. eg; sharing economy platforms operating locally have valuable data which would be helpful in ensuring compliance of both the platform as well as possibly other taxpayers (eg; users)" and "companies can develop massive and profitable activities on a territory without being taxed by this country".

A series of 4 objectives have been identified by the European Commission. They were tested with the national administrations, who were asked to rank them and choose the most important ones.

- Similar to the result of the open public consultation, the objective of **ensuring a level playing field so that all companies pay their fair share of taxes (whether large/small, more/less digitalized, EU/non-EU based**) was considered to be the most important one by a number of 12 respondents;
- Ranked second, the objectives of **ensuring a level playing field so that all companies pay their fair share of taxes** and the one on ensuring **the sustainability of the corporation tax system and the tax bases of EU Member States** were selected both by 6 respondents each;
- Ranked third, the objective of ensuring **the sustainability of the corporation tax system and the tax bases of EU Member States** was selected by 6 respondents;
- The 4th position was split equally between the objective of **ensuring the integrity and proper functioning of the Single market** and the objective of **ensuring a competitive tax environment in the EU for the scaling-up of start-ups and all business to flourish**. with 7 replies each;
- The national administrations also had the possibility to suggest other objectives that should be pursued. Some of the other objectives suggested have been: "the European Council Conclusions agreed by leaders clearly set out that it is important that a taxation system fit for the digital era ensures a global level playing field in line with the work at the OECD. The European Council Conclusions also note it is important to

ensure that all companies pay their fair share of taxes. Focus should also be on the overriding objective of tax reform efforts globally to eliminate double non-taxation, while not creating double taxation", "we consider all objectives of equal importance. Creating a tax system where a fair share paid by all companies is ensured without affecting, distorting or shifting the development of innovative activities or ideas" and "in close cooperation with OECD ensuring that EU solution should be a part of the global solution".

c. Possible solutions

The section on possible solutions was centered around the two sets of options which have been identified early on in the policy design stage: the short term, interim solutions and the long term, comprehensive solutions and their possible impacts.

The two step approach (namely the interim option first, followed by the comprehensive option) was tested with the respondents. 11 states believed that a interim option should be adopted until a more comprehensive solution is reached, 7 states did not agree to that and 3 had no opinion.

Next, the national tax administrations were asked to identify to what extent each of the short term, interim solutions would solve current problems related to the international taxation rules for the digital economy.

- **Tax on revenues from digital activities:** Introduce a tax based on revenues generated from "digital activities": 9 respondents believe this option would solve the current problems to a great extent or somehow, 7 respondents believed that this option would not solve the problems at all or only to a little extent. 3 respondents didn't know and 2 gave no answer;
- **Withholding tax on certain types of digital transactions**: Introduce a withholding tax based on payments to non-resident providers of goods/services ordered online: 7 believe this option would solve the current problems to a great extent or somehow, while 8 believed that this option would not solve the problems at all or only to a little extent. 4 respondents didn't know and 2 gave no answer;
- **Tax on revenues from certain digital services**: Introduce a tax based on the revenue from digital transactions concluded remotely with a non-resident entity that has a significant economic presence (e.g. revenue from the sale of online advertising): 10 respondents believe this option would solve the current problems to a great extent or somehow, 7 respondents believed that this option would not solve the problems at all or only to a little extent. 2 respondents didn't know and 2 gave no answer;
- **Digital transaction tax:** Introduce a tax that applies early in the value creation process (collection of personal and other data): only 4 respondents believe this option would solve the current problems to a great extent or somehow, while 9 respondents believed that this option would not solve the problems at all or only to a little extent. 6 respondents didn't know and 2 gave no answer;

The national tax administrations were also asked to identify to what extent each of the long term, comprehensive solutions would solve current problems related to the international taxation rules for the digital economy.

- **Modify the Common Consolidated Corporate Tax Base proposal**: Implement new permanent establishment and profit attribution rules through modifications to the CCCTB proposal: 9 respondents believe this option would solve the current problems to a great extent or somehow, while 9 other respondents believed that this option would not solve the problems at all or only to a little extent. 3 had no opinion.
- **"Digital presence in the EU" proposal**: Implement new EU rules for permanent establishment and profit attribution to capture digital activities of businesses in a stand-alone EU Directive: 14 respondents believe this option would solve the current problems to a great extent or somehow, while 5 respondents believed that this option would not solve the problems at all or only to a little extent. 2 states had no opinion.
- **Destination-based corporate tax**: Introduce the destination-principle to corporate taxation, according to which the jurisdiction to tax is based on the location of the consumer: 6 respondents believe this option would solve the current problems to a great extent or somehow, while a majority of 12 respondents believed that this option would not solve the problems at all or only to a little extent. 3 administration had no opinion.
- **Unitary tax**: Introduce a tax on a share of the world profit of digital companies which would be attributed to each country on the basis of the percentage of revenue earned in that country: 6 respondents believe this option would solve the current problems to a great extent or somehow, while a majority of 13 respondents believed that this option would not solve the problems at all or only to a little extent. 2 states had no opinion.
- **Residence tax base with destination tax rate**: Introduce a system where profits of a company are declared and taxed in the Member State of establishment (as is the case today), but the applicable rate is the turnover-weighted average of the tax rates of the countries where the turnover is generated: only one respondent believes that this option would somehow solve the current problems, while an overwhelming majority of 17 states believed that this option would not solve the problems at all or only to a little extent. 3 states had no opinion.
- Other options that have been identified by the respondents have been: “any problems that remain post BEPS implementation will be global problems. Any solution will need to be global in nature rather than being EU focused. Any long term measures must be evidence based and in line with global consensus”, “instead of location of the consumer, elements such as the user server capacity could also be used”, “the global discussion on the options to address the taxation of the digital economy is still unfinished and ongoing. Once the direction of the global solution is known the options presented as the long term solutions should be reassessed. Overall, the entire global value chain and its impact on how taxes should be paid to different jurisdictions should be born in mind when considering different options. It would also be essential to recognize the different business models within the digitalized economy. The legal and technical feasibility as well as economic impact of the possible responses should be assessed. Further, it should be noted that due to the development of the digital economy and to ensure effective taxation of cross-border e-commerce the EU VAT system has been modernized considerably during the last years. Based on this cross-border e-commerce sales of services and goods are taxed extensively in the Member State of consumption”.

To sum up the preference of respondents for the different options, in a similar manner as done for the open public consultation, the figure below presents the results of the Member States' questionnaire, in a very simplified manner. Those who “somehow” believe or believe “to a

great extent" that an option would solve the current problems have been considered supporters of the respective option and included under the "For" column. Those who believe "to a little extent" or "not at all" that an option would solve the current problems have been considered opponents of the respective option and included under the "Against" column. Given the relatively big number of those that either had no opinion or chose "no" to answer some of the questions, a third column was added in order to represent their choice.

Table (3). Respondents' preferences for the options - Member States' questionnaire

Option name	For	Against	No opinion
Interim, temporary solutions			
Tax on revenues from digital activities	9 states	7 states	5 states
Withholding tax on certain types of digital transactions	7 states	8 states	6 states
Tax on revenues from certain digital services	10 states	7 states	4states
Digital transaction tax	4 states	9 states	8 states
Long term, comprehensive solutions			
Modify the Common Consolidated Corporate Tax Base proposal	9 states	9 states	3 states
"Digital presence in the EU" proposal	14 states	5 states	2 states
Destination-based corporate tax	6 states	12 states	3 states
Unitary tax	6 states	13 states	2 states
Residence tax base with destination tax rate	1 state	17 states	3 states

The final question was if Small and Medium Enterprises (SMEs) should be exempt from a possible digital tax. 11 administrations believed that they should be exempted, while 6 administrations opposed this. 4 administrations had no opinion on this topic.

3. Other consultation activities

a. Commission activities

At the beginning of the process, once the Commission published the inception impact assessment, the document that established the general lines of the proposal, 2 contributions have been received: one of them asking for more clarifications on the basic concepts used in the document and the other one asking to exclude the small and medium enterprises (SMEs) from the scope of the proposal. Both of these requests have been dealt with in the analysis included in the report.

14 position papers have been sent to the functional mailbox of the initiative. They are similar in content and to the contributions received as part of the open public consultation, and have been analyzed in a similar manner.

b. OECD request for input and public consultation

Box: OECD public consultation

The OECD organised a request for input on work regarding the tax challenges of the digitalised economy from September to October 2017 in the context of the ongoing work of the Task Force on the Digital Economy (TFDE).
The request for input presented the background on the work regarding the tax challenges of digitalisation from the BEPS Action 1 report.The Action 1 report, was released in October 2015 as part of the OECD/G20 Base Erosion and Profit Shifting (BEPS) package. This report, developed by the TFDE, was subsequently endorsed by the G20 Leaders in November 2015 and by more than 100 countries and jurisdictions participating in the Inclusive Framework on BEPS.

The request for input covered the following topics:
-Digitalisation, business models and value creation: the impact of digitalisation on business models, value creation, the role of intangibles and data collection and analysis.
-Challenges and opportunities for tax systems: uncertainty and administrative burdens associated with the existing international tax framework, implications of highly digitalised business models and their value chain on taxation policy, including on existing tax bases and the distribution of taxing rights between countries.
-Implementation of the BEPS package: the impact of BEPS measures implemented, including VAT, on BEPS risks and the broader tax challenges.
-Options to address the broader direct tax policy challenges: assessment of the pros and cons of the options identified in the BEPS Action 1 report, including the tax nexus concept of significant economic presence, the withholding tax on certain types of digital transactions and the digital equalisation levy.

The form of the request for input relied on open questions.
The OECD publicly released all 53 written submissions received. The majority of the submissions were received from businesses/business associations, academics and law and consulting firms.

In addition, the OECD organised a public consultation on 1 November 2017.
The main views commonly expressed, at least within certain groups of stakeholders, can be summarised as follows:

- Many stakeholders across groups expressed the opinion that digital business models first need to be well understood before the tax consequences of digitalisation can be determined and any reform proposals can be made.
- Many businesses expressed the view that, before acting, it is appropriate to wait to see the full effects of the BEPS implementation. Especially given that public administrations are only beginning to learn about the ways in which businesses are responding to the BEPS package.
- Long term, comprehensive and multilateral solutions are preferred to short term measures, which risk creating distortions, undermine the existing international tax framework and are likely to lead to double taxation.
- The views expressed showed a lack of agreement concerning the most suitable long term solutions. This was confirmed during the consultation meeting held on 1 November 2017.

ANNEX 3: WHO IS AFFECTED AND HOW?

The objective of this annex is to set out the practical implications of the initiative for different types of companies and for national tax administrations.

The initiatives directly affect companies falling under the scope of the comprehensive solution or of the interim solution in absence of the former.

I. Overview of Benefits (total for all provisions) – Preferred Comprehensive Option		
Description	***Amount***	***Comments***
Direct benefits		
Level the playing field	++	Businesses would benefit from a more level playing field as the revision of the rules would remove distortions of competition and fight aggressive tax planning.
Fair distribution between national administrations	+	Correcting the existing misalignment of taxation and value creation would contribute to a fairer distribution of tax revenues between national tax administrations.
Sustainable public finances	+	National tax administrations would benefit from a positive impact on public finances as the solution will contribute to the long-run sustainability of the corporate tax system.
Indirect benefits		
Improve the perception of fairness	+	The solution would improve the perception of fairness for citizens by ensuring that large companies with significant digital activities do not escape their taxes in the EU.

II. Overview of Benefits (total for all provisions) – Preferred Interim Option		
Description	***Amount***	***Comments***
Direct benefits		
Preserve the integrity of the single market	+	By avoiding the fragmentation of the single market, it will provide a stable tax framework for businesses active in the EU.
Improve public finances	+	It will be an additional source of revenues to national tax

		administrations, although overall revenues are expected to be moderate.
Indirect benefits		
Improve the perception of fairness	+	This would improve the perception of fairness for citizens and consumers by ensuring a minimum level of taxation in the EU for companies that rely the most on user contributions and data.

III. Overview of costs – Preferred options							
		Consumers		Businesses		Administrations	
		One-off	Recurrent	One-off	Recurrent	One-off	Recurrent
Comprehensive solution	Direct costs	n/a	n/a	Increase in the regulatory and compliance burden for businesses falling under the scope of the solution to set up reporting for new permanent establishments	Increase in the regulatory and compliance burden for businesses falling under the scope of the solution.	Costs for implementing the new system, notably on IT. Costs for negotiating double tax treaties.	Costs for IT maintenance and staff training.
	Indirect costs	n/a	n/a	n/a	n/a	n/a	n/a
Interim solution	Direct costs	n/a	n/a	Large companies above the thresholds would face one-off cost to adapt to the reporting requirements in the Member States in	Large companies above the thresholds would have to pay the tax. Reporting requirements to compute the tax base in the	Costs for implementing the new system, notably on IT.	Costs for IT maintenance and staff training.

				which they are active. No costs for SMEs	Member States in which large companies are active. No costs for SMEs		
	Indirect costs	Possible increase in prices if companies pass on the cost of the tax, although this should be limited.	n/a	n/a	n/a	n/a	National tax administrations may wish to invest in additional resources to prevent under-reporting. In principle, the self-declaration system would limit these additional costs.

Comprehensive solution

All business sizes would be affected by the tax as there would no group size threshold proposed for this Directive. It could therefore also cover smaller businesses that have a large digital footprint in one or more Member States.

In a first step, all companies active in the EU and running digital activities would have to determine whether they fall under the application, depending on the level of digital activities falling under the scope of the comprehensive solution, the number of active users and/or the number of online contracts. This would require some additional burden e.g. to split revenues issued from the relevant digital activities with revenues from other activities, to identify and report the number of active users of the digital service in a Member State in a tax year and/or the number of online contracts. Businesses falling under the scope of the solution will face an increase in the regulatory and compliance burden to set up reporting for new permanent establishments (one-off costs).

Large companies would be affected by the comprehensive solution. Recurrent reporting and compliance requirements would generate extra costs for large companies. However, it is

likely that large companies operating across borders have internal resources to cope with the additional administrative requirement.

Small and medium sized enterprises may be affected by the comprehensive solution as they are not de facto excluded from the scope. However, the criteria set to trigger a digital permanent establishment would limit the effective application of the tax to larger companies that have significant digital activities. Determining whether they fall under the scope of the tax may be quite burdensome as young, seed enterprises and start-ups may not have the internal resources already in place to cope with the administrative obligations. However, the criteria to determine whether a company falls under the scope of application (i.e. triggering of a digital permanent establishment are based on observable indicators and available information (contracts, IP addresses etc.) which should limit the additional burden.

National tax administrations would also incur costs for implementing the new system, notably on IT and staff training to be able to apply the new permanent establishment and profit allocation rules to reflect the digital activities in that Member State. The implementation of the CCCTB should already provide a solid framework for the tax administration on which to rely on. There will also be a need to coordinate in the EU the uniform implementation and practical application of the new rules.

National tax administrations may also face additional costs for negotiating double tax treaties.

Interim solution

In a first step, all companies active in the EU and conducting digital activities would have to determine whether they fall under the application, depending on the threshold on consolidated revenue and the EU threshold on digital activities falling under the scope of the interim solution.

The fairly high revenue threshold envisaged under the preferred option would imply that only a small share of groups would be subject to application. By means of example, for a threshold of EUR 750 million the application may be compulsory for an estimated 1.6% of company groups. Considering that the digital economy currently constitutes about 5% of the total economy and that the EU threshold on relevant digital activities would also apply, the share of affected company groups would be significantly reduced.

In the case of a self-assessment system, it is expected that the persons liable to pay the tax would submit a tax return on a regular basis, for instance following every month or quarter of taxable activities. In general, in the digital economy, transactions are mostly carried out online so the taxpayers accounting systems can calculate automatically the amount of tax that is due, thus contributing to lowering the compliance costs. One could also look into the potential for market-based solutions and synergies to assist compliance, such as IT software provision and database solutions.

Large companies above both the global turnover threshold and the threshold on digital activities would face additional reporting requirement to compute the tax base in the Member States in which they are active, i.e. notably adapting the financial reporting to split revenues issued from the relevant digital activities with revenues from other activities and allocating internally revenues to various proxies such as number of active users, IP addresses. Possibly, the general ledger of accounting would need to be adapted to include more granularities. However, the additional information may not necessarily require additional assurance

processes/auditing requirements as annual reports, signed by statutory auditors, already disclose financial information split by geographical location and activities.

Small and medium sized enterprises will not be impacted given the existence of the global threshold. They will not face additional compliance burden in relation to the application of the new tax.

National tax administrations would also incur costs for implementing the new system, notably on IT and staff training. The self-declaration system would in principle limit the additional costs. However, national tax administrations may have to invest on additional resources (human and tools) to prevent under-reporting. There will also be a need to coordinate in the EU the uniform implementation and practical application of the new rules, notably in the view of limiting possible disputes.

The application of the new tax should generate additional tax revenues for national tax administrations.

Consumer prices are likely to increase following the implementation of the new tax. The extent to which the tax will be shifted into final consumer prices depends of the price elasticity of the demand. A pass-on rate of one-half has been documented for paper-based books and e-books[83]. However, evidence from online retail where consumers purchasing online are price sensitive and react strongly to price increases, let suggest that the possibility for companies to pass additional tax onto consumer prices will be limited.

[83] See European Commission (2012) – Economic Study on Publications on all Physical Means of Support and Electronic Publications in the context of VAT, p. 98 (https://ec.europa.eu/taxation_customs/sites/taxation/files/docs/body/economic_study_vat_on_publications_final_report.pdf). The pass-on rates vary also country-wise – op. cit., pp. 95-96.

Table 1: Compliance time and cost for setting up a new subsidiary (Large parent)

Large Parent										
	Current regime		CCTB				CCCTB			
	Time	Cost	Time	% Diff.	Cost	% Diff.	Time	% Diff.	Cost	% Diff.
Record keeping for corporate tax purposes	5 261	3 740.60	3 063	-41.79%	2 992.46	-20.00%	3 592	-31.73%	5 708.94	52.62%
Transfer pricing documentation	22 255	36 165.74	22 162	-0.42%	36 143.08	-0.06%	0	-100.00%	0.00	-100.00%
Preparation of corporate tax computations	4 049	2 750.04	1 976	-51.19%	2 190.86	-20.33%	4 256	5.11%	4 761.47	73.14%
Prepayments for corporate tax	907	965.56	771	-14.99%	793.10	-17.86%	2 450	170.18%	2 662.13	175.71%
Corporate tax returns and payments	1 080	1 131.27	987	-8.58%	1 005.12	-11.15%	3 085	185.73%	3 505.17	209.84%
Dealing with the tax authorities for corporate tax	19 009	37 365.70	16 616	-12.59%	35,038.00	-6.23%	10 509	-44.71%	30 200.90	-19.17%
Mutual agreement procedures on transfer pricing	8 823	17 618.47	8 841	0.20%	17 677.73	0.34%	0	-100.00%	0.00	-100.00%
Clearances and rulings for corporate tax	14 430	34 912.77	14 541	0.77%	34,928.95	0.05%	1 288	-91.08%	3 996.90	-88.55%
Learning and education for corporate tax	10 000	5 220.08	8 264	-17.37%	5 388.20	3.22%	1 469	-85.31%	2 104.33	-59.69%
Any other cross-border corporate tax compliance formality	1 548	733.76	1 548	0.00%	733.02	-0.10%	0	-100.00%	0.00	-100.00%
Total estimated time spent/cost	**87 362**	**140 603.97**	**78 768**	**-9.84%**	**136 890.52**	**-2.64%**	**26 649**	**-69.50%**	**52 939.85**	**-62.35%**
Total estimated cost (% turnover)		**0.23%**			**0.22%**				**0.09%**	

Table 2: Compliance time and cost for setting up a new subsidiary (Medium-sized parent)

Medium-sized Parent										
	Current regime		CCTB				CCCTB			
	Time	Cost	Time	% Diff.	Cost	% Diff.	Time	% Diff.	Cost	% Diff.
Record keeping for corporate tax purposes	5 147	3 653.23	3 034	-41.05%	2 957.01	-19.06%	3 178	-38.26%	4 490.57	22.92%
Transfer pricing documentation	19 962	30 192.40	19 337	-3.13%	30 625.38	1.43%	0	-100.00%	0.00	-100.00%
Preparation of corporate tax computations	4 023	2 253.53	1 954	-51.42%	1 778.82	-21.07%	3 301	-17.94%	2 862.65	27.03%
Prepayments for corporate tax	896	636.81	760	-15.20%	524.54	-17.63%	1 880	109.73%	1 497.66	135.18%
Corporate tax returns and payments	1 075	871.48	987	-8.15%	790.31	-9.31%	2 433	126.34%	2 427.03	178.50%
Dealing with the tax authorities for corporate tax	18 686	32 968.18	16 347	-12.51%	30 604.60	-7.17%	10 675	-42.87%	24 889.54	-24.50%
Mutual agreement procedures on transfer pricing	8 609	17 076.44	8 434	-2.03%	17 115.31	0.23%	0	-100.00%	0.00	-100.00%
Clearances and rulings for corporate tax	13 893	34 175.02	14 083	1.37%	34 188.34	0.04%	1 266	-90.89%	3 958.48	-88.42%
Learning and education for corporate tax	9 997	5 201.14	8 422	-15.75%	5 579.09	7.27%	1 450	-85.49%	2 064.35	-60.31%
Any other cross-border corporate tax compliance formality	1 459	677.86	1 395	-4.42%	674.05	-0.56%	0	-100.00%	0.00	-100.00%
Total estimated time spent/cost	**83 747**	**127 706.09**	**74 754**	**-10.74%**	**124 837.45**	**-2.25%**	**24 184**	**-71.12%**	**42 190.28**	**-66.96%**
Total estimated cost (% turnover)		**0.55%**			**0.54%**				**0.18%**	

Source for Tables 1 and 2: Impact assessment accompanying the CCCTB proposal (SWD(2016) 341) based on the Deloitte Tax Experts survey.
Note: Time in minutes. Costs in Euros. Average of all investment flows

ANNEX 4: ANALYTICAL METHODS

CORTAX: A MODEL TO SIMULATE CORPORATE TAX POLICIES

BRIEF DESCRIPTION OF THE MODEL

The CORTAX model is a computable general equilibrium model designed to evaluate the effects of corporate tax reforms in 28 EU countries capturing the optimal behaviour of all agents in the economy. In the model, each country is assumed to have the same structure in terms of consumption, savings, production and public finances (though the data are country-specific). Countries are linked to each other via international trade in goods markets, international goods markets and investment by multinationals. The model also includes Japan, USA and a tax haven.

Firms are divided into three categories: multinationals headquarters, their subsidiaries located abroad and domestic firms that only produce in their country of residence. Multinationals and domestic firms differ to the extent that the former optimise profits globally and are engaged in profit shifting activities across borders. Domestic firms pay their corporate taxes in their country of residence according to the revenues generated in this country only. Both domestic and multinational firms shift profits to tax haven to reduce their tax burden. In the benchmark, all firms are equal and, whilst on aggregate taxable profits are positive, there are random shocks affecting their revenues that can be attributed to, for example, business cycle evolutions. These shocks may result in losses that can be carried forward in the model.

In relation to government, there is a balanced budget where consumption and public debt are a fixed proportion of GDP. Tax revenues and/or transfer payments adjust to keep constant public budget. The taxes included in CORTAX are consumption taxes and direct taxes on income from corporate and labour, dividends, capital gains and interest. Government consumption and government debt as a share of GDP are maintained constant after a reform.

The effects of reforms can be expressed as changes in GDP, household consumption, business investment and fiscal revenue. The model is elaborated using data from different data sources including Eurostat, the OECD, the United Nations, the IMF and the Orbis firm database (see section 4.2 below for more details). In the present exercise, the model has been constructed with a database for the year 2012. The structural description of the model and the calibration process borrow heavily from Bettendorf et al. (2009b).

MODEL VALIDATION AND PEER REVIEW

The CORTAX model has acquired a strong reputation among corporate tax experts. As noted, the model was originally produced by CPB Netherlands, and has since been used by experts affiliated to the Oxford University Centre for Business Taxation, the Erasmus University Rotterdam, the Tinbergen Institute and CESifo. The model was previously used in an Impact Assessment (European Commission, 2011), which drew extensively from a report produced

for DG TAXUD (Bettendorf et al., 2009b). Among other policies, the report analysed both a common corporate tax base and a common consolidated corporate tax base for the EU.

The CORTAX model has been the basis for a number of publications in peer-reviewed journals. Of particular note is Bettendorf et al. (2010a) in *Economic Policy* which simulates a common consolidated corporate tax base (CCCTB) across the EU, with further innovations of the ideas subsequently published in *Fiscal Studies* (Bettendorf et al., 2010b). The issue of using CORTAX to analysis debt bias in corporate taxation was addressed in de Mooij and Devereux (2011) published in *International Tax and Public Finance*. An earlier publication in *The World Economy* used CORTAX to analyse the impact of corporate taxation on the labour market (Bettendorf et al., 2009a). That the model has stood up to the rigorous standards required to be accepted by journals of this quality reflects the level of the theoretical and empirical work underlying the model, and that it is appropriate for analysing key policy questions in the area of corporate taxation.

DISCUSSION WITH EXTERNAL EXPERTS

As noted in the previous section, the CORTAX model has been accepted within the corporate taxation community for some years. The model has been used by leading research institutes and universities, and work based around the model has been accepted for publication in high-level, peer-reviewed academic journals in the area of fiscal policy.

Since this earlier body of work, the model data has been updated by the Tax Modelling Group in JRC-Seville. This extensive recalibration process has been carried out in conjunction with external experts, as appropriate. The team has collaborated closely with Leon Bettendorf (CPB Netherlands), one of the original authors of the model, and lead author for many of the reports and journal articles. Regarding the calibration, the team has worked with Simon Loretz (Institute for Advanced Studies, Vienna), who produced much of the data for the previous calibration of the model during his time at the Oxford University Centre for Business Taxation, and was a co-author for the report that formed the basis of the 2011 Impact Assessment (European Commission, 2011).

UNDERLYING ASSUMPTIONS AND DATA INPUT

a) Baseline and key assumptions

In CORTAX, we account for two types of households: old and young. Their lifetime is 40-year periods each and their behaviour remains the same during the whole period. Households maximise their intra-temporal utility function subject to a budget constraint, where net savings from young workers (wages, current transfers and negative consumption) are equal to negative value of net savings from old households. The effects on welfare are calculated using the compensating variation. This is calculated as the difference in transfers received by young households required to compensate the change in utility

Firms maximise their value subject to the production function and the accumulation constraints on physical capital and fiscal depreciation. Total production is calculated as the sum of production in all firms (domestic and multinationals) net of intermediate inputs in foreign subsidiaries. Usually, the production function is a Cobb Douglas combination of the fixed factor and the value added, which is a CES aggregate of labour and capital. The model allows the parent company to charge a transfer price for intra-firm deliveries that deviates from the equivalent price that would be charged if it had been an inter-firm transaction (the 'arms-length' price), which reflects profit shifting in multinationals. In the case of domestic firms, these practices are captures with the existence of a tax haven. Profit shifting to tax havens depends on the difference between the statutory rate in their respective countries and the tax rate in the tax haven.

b) Key sources of macroeconomic and socio-economic data

The current calibration largely uses the same data sources as the original calibration of CORTAX as outlined in Bettendorf and van der Horst (2006), though in a few cases alternatives were used if these were considered more reliable, or the original source was no longer available. The year 2012 data was chosen as reference year for the calibration, as it represented a good compromise between timeliness and completeness. The countries covered are the 28 EU member states, the United States and Japan.

Population and employment statistics come from the United Nations and national accounts data on income and expenditure are collected from OECD and Eurostat. Purchasing power parity (PPPs) exchange rates are from the IMF and Eurostat and general government consolidated gross debt as a percentage of GDP is from DG ECFIN's Ameco Database. Additionally, CORTAX needs bilateral FDI positions as part of the calibration. For these, we start with the Eurostat bilateral positions. Data on Foreign Direct Investment (FDI) flows by country of origin and country of receipt are from Eurostat (financial account, direct investment, reporting economy, database table bop_fdi_pos_r2). As a number of countries have incomplete information on the country of origin of the inward FDI stock, we impute these values following the practice in Bettendorf and van der Horst (2006), and a correction is made when the FDI data represent special purpose entity activity.

Finally, CIT receipts as a percentage of GDP are from European and the OECD while information on balance sheets and ownership structure are extracted from the Orbis database, provided by Bureau Van Dijk. Although Orbis is a firm-level database, for the purposes of the calibration it is only used to produce national-level estimates of debt shares and of corporate investment shares (by type of asset) so as to calculate relevant corporate tax parameters such as the cost of capital (financed via equity or debt).

c) Construction of the baseline and core policy simulations

The data described above is entered into the model, which provides a consistent and connected framework for firms, household and governments. The data and the current policies of each country are used to replicate the corporate taxation regime, and indeed the production structure and household behaviour. The corporate taxation regime is necessarily stylised (for

example, not every deduction can be included), though we confirm that at a macro-level the CIT regimes are replicated well.

The core simulations have been chosen to reflect the potential to build upon the policy options for harmonisation of corporate tax bases in the EU. Following the proposal (European Commission, 2015), the underlying reform considered is the common consolidated corporate tax base (CCCTB), which is assumed to be mandatory for multinationals only in these simulations. The CCCTB proposal offers a holistic solution to profit shifting. It combines a common tax base together with consolidation of each multinational group's profit, removing the incentive to engage in profit shifting. Further details are available in Álvarez-Martínez et al. (2016).

Building on this basis, the CCCTB formula is adjusted to account for the digital presence, which is proxied using web page visits based on data from SimilarWeb.

d) Sensitivity of model results and likely robustness to changes in the underlying assumptions and/or data input

Extensive sensitivity analysis has been conducted around the CCCTB policy simulations (see Álvarez-Martínez et al., 2016). These simulations provide additional insights into the consequences of altering the model assumptions or policy choices, and offer a strong test of the robustness of the results. The types of sensitivity analysis are as follows: (i) implementing the common corporate for all firms, rather than just multinationals, (ii) alternative definitions of the common tax base, (iii) stricter control on profit shifting, (iv) alternative choices for capital-labour substitutability, (v) less compliance cost saving from consolidation, (vi) compensate revenue with labour taxes, instead of changing transfer payments and (vii) discrete location choice for firms.

Regarding the adjustments to the CCCTB formula to incorporate digital presence, various scenarios are presented. These indicate well the scale of the impact of such a policy, and the sensitivity of the results to the share of the formula determined by digital presence.

REFERENCES

Álvarez-Martínez, María T., Salvador Barrios, Diego d'Andria, Maria Gesualdo, Dimitris Pontikakis and Jonathan Pycroft (2016), "Modelling corporate tax reform in the EU: New calibration and simulations with the CORTAX model," Taxation Papers No. 66. European Commission.

Bettendorf, Leon and Albert van der Horst (2006), "Documentation of CORTAX", CPB Memorandum, No. 161, Netherlands Bureau for Economic Policy Analysis.

Bettendorf, Leon, Albert van der Horst and Ruud A. de Mooij (2009a), "Corporate Tax Policy and Unemployment in Europe: An Applied General Equilibrium Analysis," *The World Economy*, p.1319-1347.

Bettendorf, L., van der Horst, A., de Mooij, R., Devereux, M and Loretz, S. (2009b), "The economic effects of EU-reforms in corporate income systems", Study for the European Commission Directorate General for Taxation and Customs Union, Contract No. TAXUD/2007/DE/324, October.

Bettendorf, Leon, Michael P. Devereux, Albert van der Horst, Simon Loretz and Ruud A. de Mooij (2010a), "Corporate tax harmonization in the EU," *Economic Policy*, July pp.537–590.

Bettendorf, Leon, Albert van der Horst, Ruud A. de Mooij and Hendrik Vrijburg (2010b), "Corporate Tax Consolidation and Enhanced Cooperation in the European Union," *Fiscal Studies*, vol. 31, no. 4, pp. 453–479.

De Mooij, R.A. and Devereux, M.P. (2011), "An applied analysis of ACE and CBIT reforms in the EU," *International Tax and Public Finance*, 18:1, 93-120.

European Commission (2011), Commission Staff Working Document, Impact Assessment. Accompanying document to the Proposal for a Council Directive on a Common Consolidated Corporate Tax Base (CCCTB). COM(2011) 121 final. SEC(2011) 316 final. Brussels, March 16.

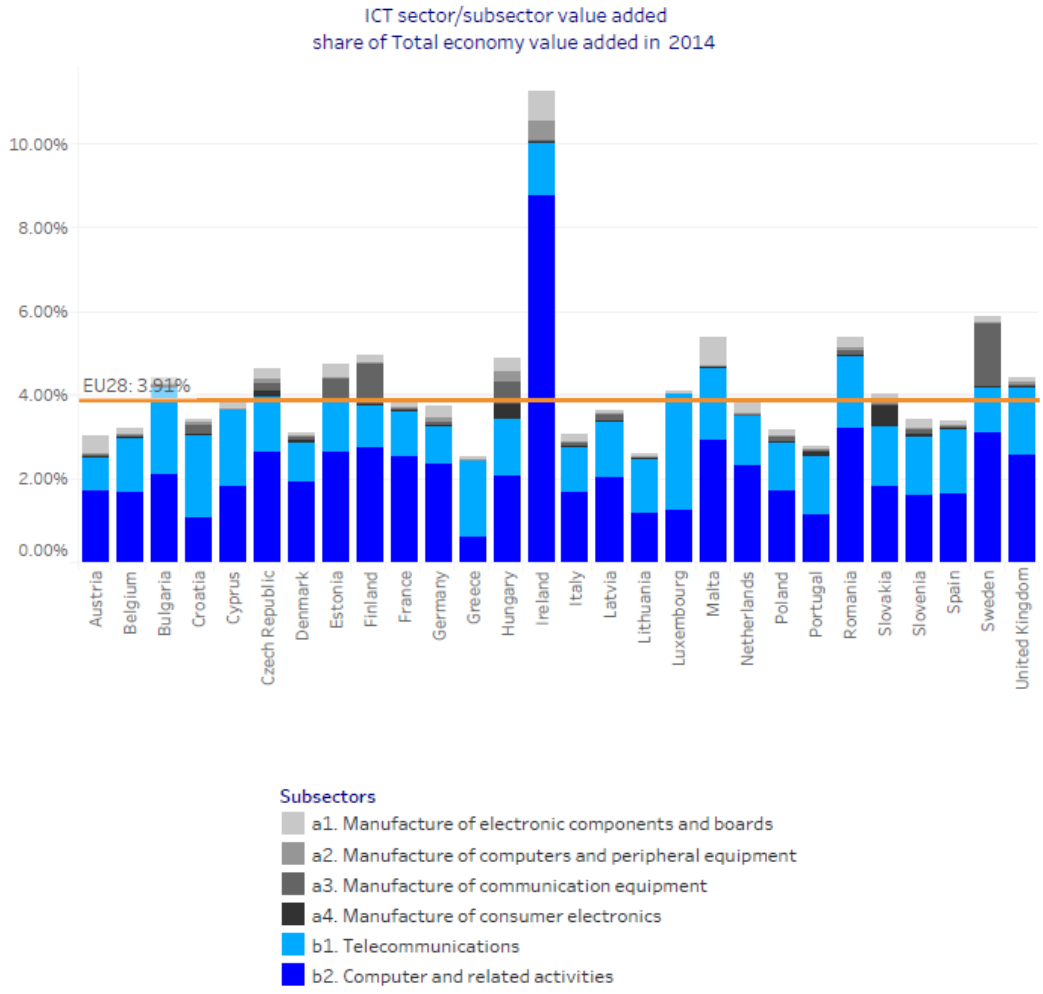
European Commission (2015), "A Fair and Efficient Corporate Tax System in the European Union: 5 Key Areas for Action", Communication from the Commission to the European Parliament and The Council, COM(2015) 302 final.

ANNEX 5: SPECIFICITIES OF DIGITAL BUSINESS MODELS IN RELATION TO TAXATION

i. THE DIGITAL 'SECTOR'

There is no well-defined digital sector as such. Notably, the Information and Communication Technology (ICT) sector is no synonym for the digital economy. Rather, one might consider the ICT sector as the backbone of the digital economy (and driving the digitalisation of more traditional industries). The ICT sector comprises both manufacturing activities and services, though services represent more than 90% of the total production. Computer and related activities is by far the largest sub-sector, followed by Telecommunications. ICT services are also growing at much faster rates than the ICT manufacturing (European Commission, 2017b).

Figure (1): Value added in the ICT sector in the EU-28 (2014)



Digital companies should not be considered pre-dominantly as ICT companies. Many companies commonly considered as digital companies do not actually belong to the ICT sector. The 2017 World Investment Report (UNCTAD, 2017a and 2017b) has developed a methodology to classify international companies into (1) digital companies, (2) IT and telecoms companies (both enablers of the global digital economy) and (3) 'other multinational companies'. IT and telecoms companies are broadly equivalent to the ICT sector. They are either IT hardware manufacturers or software developers/providers of IT services, or they are providers of telecommunication infrastructure and connectivity. Digital companies are characterised by the nature of their operations, which are strongly linked to the internet. The report distinguishes between providers of internet platforms, e-commerce, digital solutions and digital content.

Focussing on the top companies in each category clearly shows the much more dynamic revenue growth in the digital sector. Based on a unique assignment of companies into one of the categories, UNCTAD (2017b) has produced new lists of top 100 multinationals in the categories 'IT and telecoms' and 'digital'.[84] Table (1) reports summary statistics for the largest companies in each category. Average revenue growth was around 14% for the top digital firms, compared to around 3% for IT and telecom enterprises and 0.2% for other multinational enterprises, although total revenue by the largest digital companies is still considerably lower than that of the other sectors. The table also reports the 'international footprint' and the relevance of intangible assets, discussed in the next subsection.

Table (1): Revenue growth, international footprint and relevance of intangible assets of largest multinational companies

Type of MNE	Total revenue	Annual revenue growth	International footprint	Relevance of intangible assets
Digital	872	14.2%	2.1	3.1
IT&Telecoms	2825	3.1%	2.2	1.2
Other	5682	0.2%	1.1	1.4

Source: Own computations based on UNCTAD (2017a and 2017b) and

Notes: Total revenue for the latest available year for the top companies in each category in $ billion. 'Digital' and 'IT&Telecoms' each consist of 100 companies. The category 'Other' only includes 83 companies, since some of the companies on UNCTAD's usual list of top 100 global companies belong to the first two categories. Annual average growth is measured over the latest 7 available years. International footprint is the ratio of the share of foreign sales in total sales to the share of foreign assets in total assets. The relevance of intangible assets is computed as the market capitalisation over equity book value minus 1.

[84] As the focus in UNCTAD (2017b) is on international investment, only companies which exceed a certain threshold of international activity are considered. Furthermore, the companies need to report certain information in their publicly available financial accounts.

ii. SPECIFICITIES OF DIGITAL BUSINESS MODELS IN RELATION TO TAXATION

The main characteristics of digital business models - as compared to more traditional ones - are their ability to conduct activities remotely, the contribution of internet users in their value creation and the importance of intangible assets.

(a) Limited physical presence

Businesses in the digital economy can easily conduct activity remotely and are therefore very active in cross-border trade. Little physical presence is required to sell into a market From one click on the computer, consumers can order goods and services from all over the world, translating into new market reach. For digital services more specifically, this is even more acute as the delivery of the service itself requires no or little physical presence. Digitalisation also changes the nature of exchange by blurring the lines between goods and services, transforming products to their digital representation such as e-books or using the little material as in 3D printing.

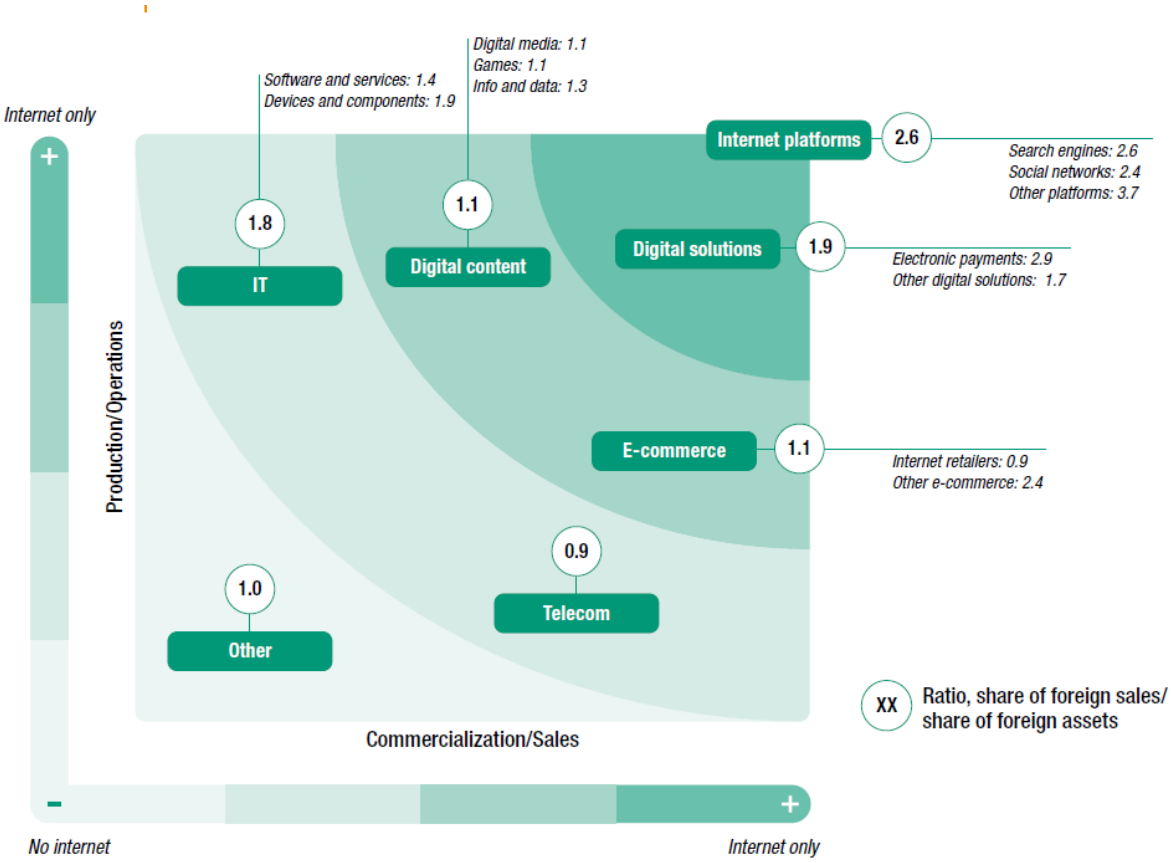
Digitalisation is profoundly changing the structure of businesses. Primary activities such as outbound logistics, marketing, sales and services that traditionally constitute an important part of the value chain/system (Porter, 1985) are going through a process of dematerialisation. Such activities were mostly conducted locally in the destination location, and are now conducted remotely in the country of origin (at source), although increasingly relying on consumer information from the destination country. One observes a disintermediation process – also referred as a *'scale without mass'* business structure. The disintermediation no longer allows the destination country to tax the profit generated from the sales/marketing activities, although the consumers/users in the destination country play an important role through their provision of data and other user contributions.

As a result, businesses of the digital economy have a fundamentally different international footprint, with far fewer assets in the location of their foreign sales. One way to measure this phenomenon is by measuring the share of foreign assets in total assets against the share of foreign sales in total sales.

International footprint = (foreign sales/total sales)/(foreign assets/total assets)

Doing so for the three categories of largest global companies (see Table 1 above) shows that, compared to the traditional non-IT companies, digital companies, have a much larger share of sales earned outside their home country relative to the assets they hold abroad compared to traditional multinational enterprises. The 2017 World Investment Report provides a more detailed breakdown which helps arriving at a clearer picture. Figure 2 reports ratios for the different business models used in the report. The international footprint is particularly striking, with values exceeding 2.0, for internet platforms (search, social networks or other platforms), electronic payment companies and companies classified as 'other e-commerce', which includes for example major travel platforms. In contrast, telecom companies, traditional businesses and online retailers, but also providers of digital media have overall a balanced ratio of around 1.

Figure (2): The internet intensity matrix and the foreign sales/assets ratio



Source: ©UNCTAD 2017 World Investment Report (UNCTAD, 2017a), based on UNCTAD's FDI/MNE database, company reports and data from Bureau van Dijk Orbis database and Thomson ONE.

Most of these remote activities by large global companies are conducted from non-EU locations. Only 50% of the affiliates of digital multinational enterprises are foreign-based, indicating the reduced need to be physically present abroad – for other (traditional) multinationals the share is 80%.[85] Large digital multinationals are particularly concentrated in the United States. From the top 100 digital multinational enterprises, two-thirds had their headquarters in the United States, whereas for tech companies and other multinationals the share was only 20%.[86]

(b) Disruption in value creation and indirect revenue generation

The relevance of user contributions is central, materialising through the mass of adopters, the production of data and other forms of user contributions to the production process. Participating in a platform or a network creates a value. As opposed to the conventional 'value chain' business model where value is generated by the supplier of a product or a service, a large part of the value derived by users of an online platform's is created by other users. This

[85] In this comparison, digital multinationals are those with business models 'digital content', 'e-commerce', 'digital solutions' and 'internet platforms' in the diagram in Figure (3).
[86] UNCTAD 2017 World Investment Report (UNCTAD, 2017a).

is particularly true for multi-sided platforms. The effects that one user of a good or service has on their value to other users are known as network effects'[87] (i.e. the marginal benefit of adopting the service increases with the number of users).

Digital platform models have moved from the traditional linear structure (from production to after-sales services), to the development of an ecosystem. This involves different skills, sources of power, strategic assets, market values and sources of growth (see Table 2). Instead of monitoring a value chain, digital platforms need to manage a community of providers and users to increase their network. In other words, instead of maximising the value of individual consumers, the platforms need to maximise the value of a network of transactions.[88] This translates in an increase in the value of the company or service, exceeding the proportional increase in the number of users.

Table (2): Differences in business models in the industrial and digital economies

	Industrial Economy	Digital Economy
Focus	Product	Platform
Structure	Value chain	Ecosystem
Source of Power	Monitoring and control of the value chain	Governance and architecture of the platform
Economic model	Economies of scale on the supply side	Economies of scale on the demand side
Strategic assets	Physical assets	Ecosystem capacity, platforms attractiveness
Market value	Return on assets	Return on transactions within the ecosystem
Source of growth	Organic growth or acquisitions	Network effects

Source: Accenture (2016).

The concept of 'prosumers' is emerging where the end-user participates in the value creation.[89] The end-user is no longer solely a consumer but contributes, either actively or passively, to the value creation.[90] The consumer may receive services for free, but also provides data that are valuable for a company or contributes more actively to the service, for example by uploading content. This is a phenomenon that Colin (2013) associates to a form of

[87] See Commission Staff Working Document on Online Platforms, accompanying the document "Communication on Online Platforms and the Digital single market" (COM(2016) 288)

[88] https://estrategiaparatodos.wordpress.com/2017/01/08/the-digital-economy-and-network-effects-value-chains-and-multilateral-platforms/

[89] The term was first coined by futurist Alvin Toffler in his work Future Shock (1970) and later developed in its sequel, The Third Wave (1980).

[90] The extent to which digital business models disrupt the value chain varies quite significantly from one model to another. For example, network effects will be particularly relevant for business model acting as marketplace (two-sided platforms) or social media that connect users. Reliance on big data is very strong for social media, Internet search services and online advertising platforms while it is moderate for cloud services.

work without monetised compensation (obvious examples are Google or Facebook to which access is free but all activities, searches, interactions that reveal interests and preferences are recorded and can used to create value). Petruzzi and Buriak (2017) also refer to 'unconscious contributor' or 'unconscious employees'. This creates challenges in determining where and by whom, value is created.

Often digital businesses provide certain types of products for free and monetise other products, creating a disconnection between revenues generated and services provided. Revenue generation in the digital economy derives from both direct payments (subscription or transaction fees) and indirect payments through the generation of value in one activity (e.g. social media, search engines) that is later monetized as input for another activity (e.g. sales of advertising space or transmission of data). The generation of income via advertisements arguably replicates the selling of advertisement space on television or radio. What does make a difference, however, is the unique, almost personalised manner in which advertising placements track the user – by responding directly to their search-engine searches or direct clicks on to adverts (Commission Expert Group on Taxation of the Digital Economy, 2014). Taken together the disconnection between the consumers of advertisements and the advertising companies and the fact that user data are central to the personalisation of advertisements result in a particularly stark deviation from the principle of taxation where the value is created.

(c) Importance of intangible assets

One key feature of intangible assets is that they are difficult to value reliably, while they are the essence of a competitive advantage in some businesses. When generated internally, generally accounting principles including international accounting standards prohibit the recognition of those assets, even though they are a core component of a business model. As a consequence, they do not appear on a company's balance sheet until such assets are either acquired or otherwise transferred to a third party for a consideration (e.g. business combination), in which case the financial statements of the acquiring company must generally recognise these assets for its fair value.

There is evidence that intangible assets are particularly important for companies with significant digital activities. Markets tend to attribute their own value to assets, whether recognised or not. Therefore, as a proxy, differences in the importance intangible assets can be derived by comparing differences between a company's equity book value and its market valuation (UNCTAD, 2017a). The increasing importance of intangible assets is shown by a widening gap between book and market values of companies. Undisclosed intangibles of the largest digital multinationals are estimated to be on average roughly equal to 3 times the company's total equity book value – significantly more than the average recorded for IT & telecom companies and other multinational enterprises (see Table 3 below). At the same time, the excess in market capitalisation over equity book values are of course also an indication of the market expectations about future revenue generation.

Table (3): Overview of physical presence per sector (digital, ICT and other)

	International footprint	Relevance of IP
Digital	2.1	3.1
IT & Telecoms	2.2	1.2
Other	1.1	1.4

Source: Based on data from the Buerau van Dijk Orbis database. Notes: The relevance of intangibles is computed as the market capitalisation over equity book value minus 1.

The differences in asset profiles indicate a structural shift in the sources of value creation, from physical assets to intangibles. It also illustrates the profound disruption brought about by digital multinationals discussed above. The intangible investment offers a high competitive advantage. At the same time it raises a concern over a growing distance between highly productive firms at the frontier and the followers. Chen et al. (2016) find that intangible capital is significantly more productive in ICT-intensive sectors than in those that use little ICT.

(d) Winner takes most dynamics

Digital markets are often dominated by a few 'superstar' firms. Today's big players of the digital economy are fairly young companies that have created new markets and quickly become global, dominant players. Common characteristics include the volatility in the market (the rapid gaining and losing of market share), the tendency towards monopoly and oligopoly and the relevance of user contributions to the success of the business model (OECD, 2015a). Although modern technologies such as the internet, software and cloud services, make it possible to enter markets at minimal costs and as such threaten a dominant position (Evans and Schmalensee, 2016), digitalisation and globalisation contribute to a trend of 'winner takes most' markets that are dominated by a few 'superstar' firms (Veugelers, 2017). For digital markets this has to do with the relevance of large fixed investments, combined with low marginal costs (once developed digital goods can be reproduced at almost no cost), network and lock-in effects.[91] These are strong forces bringing about increasingly concentrated markets. Capacity limits, product differentiation and potential for multi-homing (i.e. the possibility to be active on several similar platforms) however can limit the level of concentration (Haucap and Heimeshoff, 2014).

[91] See for example Shapiro and Varian (1998). Moreover, the literature on barriers to market entry recognizes the type of lock-in effects that networks can entail as a possible switching barrier, one form of a barrier to market entry. Similarly, low taxes, giving a cost advantage to the incumbent firm, are one form of a market barrier. A review of the literature on market barriers and a classification of different forms of barriers is provided in McAfee et al. (2003).

Data on the top 100 global companies by market capitalisation shows the increasing dominance of ICT/digital-based firms, notably US firms (see figure below). Within one decade, only three companies that were in the top-10 ranking of companies by market capitalisation have remained in this position, one of them being Microsoft, a technology-based company closely associated to the digital revolution. In 2016, seven out of the top-10 companies were associated to the ICT sector, with Apple, Alphabet and Microsoft leading the overall ranking.

Figure 3: Top 100 global companies (1-15) by market capitalisation, 2017 and 2009

Company	Industry	Country	31 March, 2017		31 March, 2009		Change in rank between 31 March, 2009 and 31 March, 2017
			Rank	Market Capitalisation ($bn)	Rank	Market Capitalisation ($bn)	
Apple Inc	Technology	United States	1	754	33	94	+32
Alphabet Inc-Cl A	Technology	United States	2	579	22	110	+20
Microsoft Corp	Technology	United States	3	509	6	163	+3
Amazon.Com Inc	Consumer Services	United States	4	423	na	31	-
Berkshire Hathaway Inc-Cl A	Financials	United States	5	411	12	134	+7
Facebook Inc-A	Technology	United States	6	411	-	-	-
Exxon Mobil Corp	Oil & Gas	United States	7	340	1	337	-6
Johnson & Johnson	Health Care	United States	8	338	8	145	0
Jpmorgan Chase & Co	Financials	United States	9	314	28	100	+19
Wells Fargo & Co	Financials	United States	10	279	55	60	+45
Tencent Holdings Ltd	Technology	China	11	272	-	13	-
Alibaba Group Holding-Sp Adr	Consumer Services	China	12	269	-	-	-
General Electric Co	Industrials	United States	13	260	24	107	+11
Samsung Electronics Co Ltd	Consumer Goods	South Korea	14	259	53	61	+39
At&T Inc	Telecommunications	United States	15	256	7	149	-8

Source: Bloomberg and PwC analysis

ANNEX 6: DETAILED BASELINE SCENARIO ON RELEVANT POLICY INITIATIVES

OECD work in progress:

Progress within the Base Erosion and Profit Shifting project

The BEPS Action 1 report (OECD, 2015a) concluded that digitalisation did not present specific issues in the area of tax avoidance but could exacerbate some. This is the reason why several of the BEPS actions refer explicitly to the challenges posed by digitalisation. Four of these actions have led to an agreed minimum standard. The rest of the actions have led to recommendations and guidance. The Inclusive Framework of BEPS brings together more than 100 jurisdictions, thereby allowing for a widespread implementation of the BEPS measures.

Minimum standards were agreed with respect to Action 5 (Harmful Tax Practices), Action 6 (Treaty abuse), Action 13 (Transfer Pricing Documentation) and Action 14 (Dispute Resolution Mechanisms). Several of the Anti-Base Erosion and Profit Shifting (BEPS) actions refer explicitly to the challenges posed by digitalisation. Four of these actions have led to agreed minimum standards in the areas of harmful tax practices (Action 5), treaty abuse (Action 6), transfer pricing documentation (Action 13) and dispute resolution mechanisms (Action 14). Minimum standards are subject to a peer-review that will take place in 2016-2020 and should ensure consistent implementation. In the light of the challenges brought by digitalisation, Actions 5, 6 and 13 are particularly relevant. Other actions are in the form of recommendations and guidance. The Inclusive Framework of the BEPS Project brings together more than 100 jurisdictions, thereby allowing for a widespread implementation of the BEPS measures.

The implementation of Action 5 is well under way. The overwhelming majority of existing intellectual property regimes were abolished or amended in line with the "nexus approach", both at EU and at global level (through the Inclusive Framework). Similarly, a high number of rulings have been exchanged among member of the Inclusive Framework. In the EU, the amendment to the Directive on the automatic exchange of information[92] has made the exchange of rulings legally binding.

Measures to prevent treaty abuse start to be widely implemented. Around 70 jurisdictions signed the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (MLI), whereby about a third of existing tax treaties will be aligned with the minimum standard on action 6. Countries may also update their bilateral tax treaties though bilateral

[92] Council Directive 2014/107/EU of 9 December 2014 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation (OJ L 359, 16.12.2014)

negotiations. Finally, the Commission issued a Recommendation in 2016 on Tax Treaty issues,[93] which advises Member States on how to reinforce their tax treaties in a way that is compliant with EU law. Treaty abuse is relevant given the increased ability to choose the location of resources (e.g. intellectual property) that are key to digital activities.

The exchange of country-by-country reports has been made legally binding[94] on EU Member States with the first exchanges planned in 2018. More than half of the Inclusive Framework members have signed an agreement to operationalise the exchange of reports between jurisdictions.

The amendments to the permanent establishment definition (Action 7) and revisions of the Transfer Pricing Guidelines (Actions 8-10), which are not subject to minimum standards, are very relevant to address the challenges of digitalisation. The amendments to the permanent establishment definition have been the subject of the 2016 Commission Recommendation on Tax Treaty issues, which is non-legally binding, and there have been several reserves in the context of the MLI. While the BEPS outcomes have been reflected into the OECD Transfer Pricing Guidelines, the effective implementation will largely depend on the national legislation.

Amendments to the permanent establishment rules in the OECD Model Tax Convention were agreed, but these are not legally binding and some countries have made reservations against these. Through the amendments, the *regular* conclusion through intermediaries of contracts to be performed by a foreign enterprise triggers a sufficient taxable nexus in that country.[95] Moreover, specific activity exemptions would only apply to activities that are of a *preparatory or auxiliary* character, that is, only if the activities do not form part of the core business. For example, a large warehouse of an online sales business for storage and delivery of goods would constitute an essential part of the sales and distribution function of that business. As a result the warehousing function would not qualify for the preparatory and auxiliary activity exemption anymore. The proposed amendments are implemented either through bilateral tax treaty negotiations or through the so-called 'Multilateral Instrument', but some countries have reserved against these. At EU level, the 2016 Commission Recommendation on the implementation of measures against tax treaty abuse encourages Member States to implement the proposed provisions.

[93] Commission Recommendation (EU) 2016/136 of 28 January 2016 on the implementation of measures against tax treaty abuse (OJ L 25, 2.2.2016)

[94] Council Directive (EU) 2016/881 of 25 May 2016 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation (OJ L 146, 3.6.2016)

[95] "For example, where the sales force of a local subsidiary of an online seller of tangible products or an online provider of advertising services habitually plays the principal role in the conclusion of contracts with prospective large clients for those products or services, and these contracts are routinely concluded without material modification by the parent company, this activity would result in a permanent establishment for the parent company." (OECD, 2015b).

Furthermore, the G20/OECD Base Erosion and Profit Shifting BEPS project[96] examined a new nexus in the form of a significant economic presence without issuing a recommendation. The economic presence would be assessed on the basis of various elements such as revenues, digital factors (local domain names, local digital platforms, local payment options) and users-based factors (such as number of 'monthly active users', online contract conclusion or data collected). Although the report did not include this new nexus in its recommendation, it made clear that the evolution of the digital economy warranted further work on the issue and a monitoring of the developments.

Legally-binding rules have been agreed at EU level regarding CFC rules (Action 3), interest limitation rules (Action 4) and hybrid mismatches (Action 2), which should enter into force as from 2019[97] and 2020.[98] However, according to the OECD assessment, there has not been great interest from countries to amend the CFC rules with respect to income from online sales and services. Beyond the EU Member States, a number of other countries have or will have elements of those rules in their national legislation.

The OECD is continuing its work on digital taxation and has recently published its interim report on the taxation of the digital economy and presented it to the G20 Finance Ministers at their meeting in March 2018 (OECD, 2018). In the long-term, the OECD will also examine reforms related to the nexus and the profit allocation (permanent establishment and transfer pricing), the two pillars of the problem. A final report is due in 2020.

EU work in progress

Corporate taxation

At EU level, the Commission has launched a new proposal for the CCCTB. The baseline scenario assumes that the current CCCTB proposal will be introduced. The box below explains the key relevant provisions of the CCCTB proposal.

The Anti-Tax Avoidance Directive puts forward tax rules aimed at preventing that income goes untaxed (or taxed at very low level), inter alia through controlled foreign company rules, exit taxation and switch-over rules. It will enter into force in January 2019 (with exceptions).

[96] Final report on Action 1.

[9797] Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market (OJ L 193 of 19.7.2016). The following derogation is foreseen "Member States which have national targeted rules for preventing BEPS risks at 8 August 2016, which are equally effective to the interest limitation rule set out in this Directive, may apply these targeted rules until the end of the first full fiscal year following the date of publication of the agreement between the OECD members on the official website on a minimum standard with regard to BEPS Action 4, but at the latest until 1 January 2024."

[98] Council Directive (EU) 2017/952 of amending Directive (EU) 2016/1164 as regards hybrid mismatches with third countries

As stated in the June 2015 Action Plan[99], the Commission is working on improving the transfer pricing framework in the EU. For example, a report addressing the challenges of valuing intangibles by using economic valuation methods will be published soon by the EU Joint Transfer Pricing Forum, an expert group advising the Commission on TP matters.

To prevent the harmfulness of these schemes, an agreement was reached in the OECD and in the EU on the approach to be taken to ensure that there is a clear link between the tax advantage being granted under the patent box and a firm's R&D activities ('nexus approach').[100] The EU agreement on a modified nexus approach requires that Member States with patent boxes that do not meet this condition close them to new entrants by 30 June 2016 and abolish them by the 30 June 2021.

Box: CCCTB rules on tax residence and allocation of profits

The CCCTB applies to companies that are established under the laws of a Member State, including their permanent establishments in other Member States. It also applies to companies established under the laws of a third country in respect of their permanent establishments situated in one or more Member States.

Permanent establishment rules
A permanent establishment is a fixed place of business such as a branch, an office, a factory, a place of management, or a construction site if it lasts more than a year. Certain activities of preparatory or auxiliary nature may be excluded from the definition of a permanent establishment, most notably if facilities are used solely for storage, display or delivery of goods, or carrying out for the taxpayer, purchasing activities or collecting of information. Under certain circumstances, a permanent establishment is deemed to exist where a person on behalf of a taxpayer habitually concludes contracts or plays the principal role leading to a conclusion without material modification.[101]

Resident and non-resident taxpayer
A company that is a tax resident in a Member State is a resident taxpayer for the purposes of the CCCTB. Normally, this is the case if such a company is incorporated or centrally managed in a Member State. A resident taxpayer is in principle subject to tax on all of its worldwide income; that is irrespective of whether or not it originates from within the Member State of residence. A company that is not resident in a Member State is a non-resident taxpayer if that company has a permanent establishment in a Member State. A non-resident taxpayer of a Member State is subject to tax only on income that can be attributed to its permanent establishment in said Member State.[102]

[99] COM(2015) 302 final
[100] This does not mean that these schemes are effective in raising R&D efforts.
[101] Article 5 of the Directive on a Common Corporate Tax Base.
[102] Under the rules of the common corporate tax base, that is before consolidation and apportionment is applied, the implications of being a resident and non-resident taxpayer are determined by the bilateral double tax treaties between Member States. In essence, they are also based on the principle that resident taxpayers are taxed on their worldwide income whereas non-resident taxpayers are taxed only on their domestic income. These treaties also lay down how to avoid double taxation of the same income. Under a territorial approach the taxpayer (whether resident or non-resident) is subject to tax only on income earned in that territory.

Mandatory scope
Only large companies fall under the mandatory scope of the CCCTB. This is the case for a company belonging to a consolidated group for financial accounting purposes with total consolidated group revenue that exceeded EUR 750 million during the financial year preceding the relevant financial year. All other companies can opt to apply the CCCTB.

Allocation of tax base
Under the CCCTB all profits within a group are added and then apportioned back to the entities of the group through a formula. The formula puts equal weight on three factors: two input factors, assets and labour, and a factor capturing the market side, namely sales. Assets exclude intangible assets and financial assets to make the formula more robust against aggressive tax planning, considering their highly mobile nature. The labour factor consists of two sub-factors, each with equal weight, which are number of employees and payroll. The sales factor consists of sales by destination, that is, a sale of a group is attributed to an entity depending on the location of the customer (where transport or dispatch ends). Where there is no group member in the Member State of destination, the sales are included in the sales factor of all group members in proportion to their labour and asset factors. Similarly, where there is more than one group member in the Member State of destination, the sales are included in the sales factor of all group members located in that Member State in proportion to their labour and asset factors. For certain industries, there are adjusted formulae that better fit the needs of sectors such as financial services and insurance, oil and gas as well as shipping and air transport.

Value added tax

The implementation of the destination principle started with new VAT place of supply rules for B2C telecommunications, broadcasting and electronically (TBE) supplied services[103], which came into force in 2015. According to such rules, VAT is due in the Member State where the consumer is established. A simplification mechanism is provided – the Mini One Stop Shop (MOSS) – allowing businesses to make a single declaration and payment in their own Member State in respect of sales in other Member States. Other complementary legislative proposals, which further implement the destination principle in VAT, have also been recently adopted. Notably: (i) the e-Commerce proposal, adopted in December 2017, (ii) the proposal on a definitive VAT system for intra-EU cross-border trade, adopted in October 2017, and (iii) the new proposal on rates of January 2018 which is intended to give more freedom for Member States to set VAT rates.

[103] For more information on the 2015 rules, see here. Council Implementing Regulation (EU) No 1042/2013 of 7 October 2013 amending Implementing Regulation (EU) No 282/2011 as regards the place of supply of services (OJ L 284, 26.10.2013, p. 1); and Council Regulation (EU) No 967/2012 of 9 October 2012 amending Implementing Regulation (EU) No 282/2011 as regards the special schemes for non-established taxable persons supplying telecommunications services, broadcasting services or electronic services to non-taxable persons (OJ L 290, 20.10.2012, p. 1).

According to the e-commerce proposal, all cross-border B2C supplies of services, as well as imports, will be taxed in the Member State of the consumer. This would replace the current regime, where B2C supplies of services other than TBE are generally taxed in the Member State where the supplier is established. The current exemption for the importation of small consignments, according to which non-EU suppliers can supply VAT-free goods to consumers in the EU, will be abolished.

According to the proposal on a definitive VAT system, the current VAT arrangements for B2B cross-border supply of goods will also be changed. At present, a B2B cross-border supply of goods within the EU is split into two different transactions for VAT purposes: 1) an intra-EU supply of goods exempt in the Member State of origin (made by the supplier); 2) an intra-EU acquisition of goods taxed in the Member State of destination (made by the customer). With the new rules, the exemption for the B2B cross-border supply of goods will disappear and businesses making such supplies will be liable for declaring and paying VAT in the Member State of arrival of the goods by means of an extended One Stop Shop (OSS).

MS work in progress:

Some MS have introduced national measures to address the taxation of the digital economy, e.g. Hungary (online advertising tax), Germany and France (access to online digital content) or Slovakia (on revenues derived by intermediation through websites and online platforms), while the others specifically targeted the profit-shifting issue in the form of a diverted profits tax and withholding tax (UK) and a new administrative procedure for large non-resident MNEs to disclose hidden permanent establishments (Italy). Based on recent public statements, it seems likely that a few more MS are considering a specific (indirect) tax on revenues derived through intermediation and the provision of online advertising (UK) (HM Treasury, 2017) and on digital B2B transactions with electronically-supplied services (Italy), respectively, in the absence of coordinated action at EU or international level.

Table (1): Overview of unilateral measures taken/planned

Country	Planned/ adopted/ implemented	Type of tax	Brief description of the measure (where available)
Indirect taxes[104]			
In the European Union			
Hungary	Implemented (2014), amended (2015, 2017)	Tax on advertisement	This tax is levied on any advertising activity, whether it is in printed or digital form. The tax is income based: a yearly income from advertising activity over HUF 100mn (approximately EUR 322,000) is taxed at the rate of 5.3%. An entity can be the subject of the advertising tax if it: • publishes advertising for others, providing advertising services and realising income from such activities; • publishes an advertising to promote its own services or products or (irrespective of where it is domiciled) orders advertising from a media content provider settled in Hungary.
UK	Planned (2019)	Withholding tax on revenues derived from intermediation and the provision of online advertising	A withholding tax on the revenues that businesses generate from the provision of digital services in the UK market is being considered as a possible interim solution for taxing the digital economy. The tax would be levied on the revenues obtained through intermediation and the provision of online advertising. Most probably, the tax would not cover revenue generated through electronic sales of goods and from charging customers for the provision of digital or services. *De minimis* thresholds and mitigating provisions for loss-making and early-stage businesses are also being contemplated.

[104] VAT on digital services is not included here.

Italy	Planned (2019)	Tax on digital B2B transactions with electronically-supplied services	A 3% equalization tax would be levied on payments (net of value-added tax) made to non-residents by Italian-resident purchasers of digital services (such as online advertising) carried out through electronic means (*e.g.* the internet or other electronic networks), regardless of where the transaction agreement is concluded. The equalization tax would apply only to B2B transactions (a threshold of minimum 3,000 transactions is provided in the law), *i.e.* transactions with companies, partnerships, professionals and individuals that carry out an economic business in Italy, and on Italian PEs of foreign entities. B2C transactions would fall outside the scope of the proposed equalization tax. In principle, tax crediting for digital service providers subject to the equalization tax will be allowed.
France	Implemented (2003), amended (2016)	Levy on access to content, including digital content by means of a video on demand / over-the-top online platform (for the cinematography fund)	The levy covers activities of making available services giving access (against consideration) to cinematographic or audiovisual works, on individual request formulated by an electronic communication method. Services whose audiovisual content is secondary, services whose main purpose is devoted to information and services that mainly provide information related to cinematographic and audiovisual works and to their dissemination and promotion, are exempt. The taxable amount is the amount paid by advertisers and sponsors, for the dissemination of their advertising services to the relevant taxpayers or the directors of advertising messages, excluding value-added tax. These sums are reduced by 4%. The reduction goes up to 66% in the case of services giving or allowing access to audiovisual content created by private users for sharing and exchanging within communities of interest.
Germany	Implemented (2004), amended (2010)	Levy on access to content, including digital content by means of a video on demand / over-the-top online platform (for the cinematography fund)	The film levy in Germany (Filmabgabe) helps financing the German Federal Film Board. The rate of the film levy is between 1.8% and 2.5% of the annual net sales. Video-on-demand providers that collect less than EUR 500,000 a year through cinematographic works are exempt from the levy Private broadcasters with free-to-air programs pay a film royalty on net advertising revenue. The film levy varies between 0.15% and 0.95% and depends on the share of cinematographic films in the total broadcasting time. Private broadcasters whose total net revenue is less than EUR 750,000 for such services are exempt. Organizers of pay-tv and program marketers pay a fixed film levy amounting to 0.25% of their net sales in Germany, either with subscription contracts or for individual consideration. Suppliers who show no or only a few films (less than two percent of the total time) or whose total net sales with these offers is less than EUR 750,000 are exempt from the film levy.
Romania	Implemented (2005), amended (2008)	Levy on access to content, including digital content by means of a video-on-demand /	The mandatory contribution to the cinematography fund is levied at 3% on the turnover from audio and video content legally downloaded in digital format and at 1% on the turnover from the digital re-transmission of TV shows.

		over-the-top online platform (for the cinematography fund)	
Croatia	Implemented (2007)	Levy on access to content, including digital content by means of a video-on-demand online platform (for the cinematography fund)	The levy amounts to 2% of the taxable turnover.
Portugal	Implemented (2007)	Levy on access to content, including digital content by means of a video-on-demand online platform (for the cinematography fund)	The levy amounts to 1% of the taxable turnover. There is an option between contribution to the cinematography fund or investment in production.
Belgium (certain regions)	Implemented (2009)	Levy on access to content, including digital content by means of a video-on-demand online platform (for the cinematography fund)	In Wallonia and Brussels, contributors can opt either to transfer, respectively, 1.4% and 2.2% of the taxable turnover to the film fund or to make an equivalent investment directly in films.
Czech Republic	Implemented (2012)	Levy on access to content, including digital content by means of a video-	The levy amounts to 0.5% of the respective turnover.

		on-demand online platform (for the cinematography fund)	
In third countries			
United States (certain states)	Implemented (2015-2016)	Levy on access to digital content and streaming services	
India	Implemented (2016)	Levy on the provision of online advertisement services by non-residents	The Indian 'equalisation levy' is imposed on e-commerce transactions whereby a resident or a non-resident with a permanent establishment carrying on a business or profession in India is obliged to withhold 6% equalisation levy from payments made to a non-resident service provider for specified services. These services include online advertisements, provision of digital advertising space, or any other facility or service for the purpose of online advertisements or any other notified services, except where the aggregate consideration for the specified service is less than INR 100,000 (EUR 1,300). The levy does not apply if the service provider is a non-resident who has a permanent establishment in India to which the service is effectively connected and such income is attributable.
Canada (certain states)	Planned (2018)	Levy on access to digital content and streaming services	
Brazil (certain states)	Planned (2018)	Levy on access to digital content and streaming services	
Direct tax initiatives targeting profit-shifting			
In the European Union			
UK	Implemented	Diverted profits	The diverted profits tax does not explicitly target 'digital companies' – it targets contrived arrangements that erode the UK tax

	(2015)	tax	base through abuse of permanent establishment and transfer pricing rules. The diverted profits tax applies to UK and foreign companies using contrived arrangements designed to erode the UK tax base in the following two situations: • if a foreign company artificially avoids having a permanent establishment in the UK; • if a UK company, or a foreign company with a UK permanent establishment, creates a tax advantage by using connected entities for transactions that lack economic substance.
Italy	Adopted (2017), in force (2018)	Administrative procedure for large non-resident multinational enterprises	This administrative procedure introduces an option for foreign companies that meet certain thresholds to discuss (and agree) in advance with the Italian tax authority the existence there of a permanent establishment. The terms apply to digital companies not headquartered in Italy having: • at least EUR 1 billion in global revenue; and • sales in Italy of at least EUR 50 million.
Slovakia	Adopted (2017), in force (2018)	Tax on income derived from intermediation through websites and online platforms	The tax will be levied at a rate of 21 % on the income of 'digital platforms', non-resident in Slovakia, despite the absence of a fixed place of business in this country. The proposed legislation defines digital platforms very broadly as 'hardware or software platforms required for the creation of applications and their management'.
In third countries			
Israel	Implemented (2016)	The significant economic presence test for non-resident enterprises	Under well-defined circumstances income of foreign corporations from the sale of goods or provision of services via the internet may be attributed to a 'deemed permanent establishment' in Israel if: • the foreign company maintains an operation in Israel; • the foreign company sells directly products or services to clients in Israel or connects with customers in Israel through a local website (for instance, by way of a website operated in Hebrew language for Israeli market purposes); • representatives in Israel of the foreign company are involved in identifying Israeli customers and/or gathering information; or • the foreign company has provided authority to an Israeli representative to engage in transactions locally which are binding on the foreign company.

Australia	Implemented (2017)	Diverted profits tax and additional anti-avoidance rule for large non-resident multinational enterprises	The diverted profit tax aims to ensure that the tax paid by significant global entities properly reflects the economic substance of their activities in Australia and aims to prevent the diversion of profits offshore through contrived arrangements. Australia's diverted profit tax applies to multinational enterprises, which are qualified as 'significant global entities', i.e. with annual global income of at least AUD 1 billion, that enter into a scheme which: • has at least one of the parties connected to the scheme being a foreign entity; and • results in a 'diverted profit tax benefit', as defined in the law. There is also a *de minimis* threshold of AUD 25 million (for the local income) aimed at ensuring that the diverted profit tax only applies to companies that have sufficiently large operations in Australia.
India	Planned (2018)	New concept of significant economic presence	The Finance Minister of India proposed, in the context of the Union Budget 2018, to introduce the concept of a 'significant economic presence'. A significant economic presence for this purpose shall mean • any transaction in respect of any goods, services or property carried out by a non-resident in India, including a provision of download of data or software in India, if the aggregate of payments arising from such transaction or transactions during the previous year exceeds the amount as may be prescribed; or • systematic and continuous soliciting of its business activities or engaging in interaction with such number of users as may be prescribed, in India through digital means. The proposed amendment in the domestic law aims to enable India to negotiate for inclusion of the new nexus rule in its Double Taxation Agreements. The thresholds of 'revenue' and the 'users' would be decided after consultation with stakeholders.
United States	Adopted (2017), in force (2018)	The introduction of the concept of 'base erosion anti-abuse tax' for large multinational enterprises	The new provision refers to base erosion as tax reduction strategies employed by multinational corporations that exploit differences between the tax laws of different countries in order to minimise or eliminate the amount of corporate tax paid. With respect to base erosion payments paid or accrued in tax years that begin after 31 December 2017, 'applicable taxpayers' are now required to pay a tax, the 'base erosion anti-abuse tax' (BEAT), equal to the 'base erosion minimum tax amount' for the tax year. Applicable taxpayers are corporations (except for certain type of corporations) with average annual gross receipts of at least USD 500 million and a 'base erosion percentage' of at least 3% (2% for certain banks and securities dealers). This percentage is equal to the aggregate amount of base erosion tax benefits of the taxpayer for the tax year divided by the aggregate amount of specified deductions allowable to the taxpayer for the tax year. A base erosion payment, in turn, generally means • any amount paid or accrued by a taxpayer to a foreign person that is a related party of the taxpayer; and • with respect to which a deduction is allowable, including any amount paid or accrued by the taxpayer to the related party in connection with the acquisition by the taxpayer from the related party of property of a character subject to the

allowance of depreciation (or amortisation instead of depreciation).

Source: Commission analysis based on various sources, such as national legislations, replies to the Member State consultation or other government sources, websites of national film funds, European Film Agency Directors (EFADS) website, website of the International Bureau of Fiscal Documentation (IBFD - for most of the direct tax initiatives) and Thomson Reuters Tax & Accounting for the US BEAT measure.

ANNEX 7: WHAT ARE THE CONSEQUENCES?

i. DIFFICULTY TO TAX/OPPORTUNITIES FOR TAX AVOIDANCE

(a) Misalignment of value creation and taxes

For globally active companies that do not require physical presence to gather and process data there is a misalignment between value creation and taxation.[105] The use of intangibles and of data knowledge (including consumer data) and other user contributions to improve or develop products and services or to define marketing, sales and pricing policies has increased considerably, although it is not a new phenomenon. It does not raise tax issues as long as a company's activities are pre-dominantly domestic, in which case all value creation would also be 'domestically' captured for taxing purposes. However, it does raise an issue in a global context. The current permanent establishment and transfer pricing rules that address the questions 'where to tax' and 'how much to tax' do not take into account the user contribution in the allocation of taxable profits, which results in a mismatch with the value creation. The views of stakeholders have been tested on this topic: 67% of respondents to the open public consultation as well as 15 out of 21 national tax authorities agree with the statement that "states are not able to collect taxes on the value that some digital companies create on their territory".

(b) Avoidance of permanent establishment rules

Difficulties to tax and/or opportunities for tax avoidance arise in relation to the current permanent establishment rules and transfer pricing rules. First, as the current permanent establishment rules are grounded in physical presence they often do not capture digital activities or can be easily circumvented in relation to such activities. Second, even where there is a permanent establishment, tax can be avoided by shifting mobile intellectual property to low tax jurisdictions resulting in intra-group payments for which an objective transfer price is difficult to determine.

Article 5 of the OECD Model Tax Convention provides that the business profits of an enterprise which is not resident for tax purposes in a certain jurisdiction become taxable there only to the extent that the enterprise has a permanent establishment in that state. The concept of PE requires some physical presence and permanence in a jurisdiction. While those two criteria are relevant for the traditional economy, they do not necessarily address the stakes of the digital economy. This is notably because the ability to carry out business activities remotely has been increased in the digital economy. As a result, even sizeable digital activities in a location do not always result in a permanent establishment in that location. And, even if such a permanent establishment is triggered in the absence of tax planning, it often is fairly easy for digital economy businesses to find arrangements that circumvent the existence of a permanent establishment.

[105] That is, the phenomenon of disintermediation due to a process of dematerialisation in the business model of digitalised firms.

In particular, the avoidance of permanenet establishments happens in practice through the use of commissionaire arrangements and arrangements that escape the PE status by treating some critical functions as auxiliary. Through commissionaire arrangements a person sells products in a state in its own name but on behalf of a foreign enterprise that is the owner of these products. In this way, a company is able to avoid the status of a permanent establishment and thus escape corporate income tax on the profits generated by the sales in that state. Similar results can be achieved through arrangements where contracts that are substantially negotiated in one state are not concluded in that state because they are finalised or authorised abroad, or where the person who concludes contracts is an 'independent agent' to whom the exception of Article 5(6) is applicable. Moreover, Article 5(4) includes 'specific activity exemptions' according to which a permanent establishment is deemed not to exist where a place of business is only used to carry out the activities listed in that paragraph. Businesses have been able to avoid creating a permanent establishment in a country by categorising their business activity as qualifying for one of the exemptions from permanent establishment status. Another possibility to trigger the Article 5(4) exemption is by breaking up into several small operations in order to claim that each part is merely engaged in preparatory or auxiliary activities.

In the context of Action 7 of the G20/OECD BEPS project, amendments to the permanent establishment rules in the OECD Model Tax Convention were proposed, but these are not legally binding. Article 5 has been amended to ensure that, where the activities of an intermediary result in the *regular* conclusion of contracts to be performed by a foreign enterprise, that enterprise should be considered to have a sufficient taxable nexus in that country.[106] The new rules also tighten the definition of independent agent. The changes proposed under Action 7 prevent this by limiting the exemptions to activities that are of a *preparatory or auxiliary* character i.e. business can only qualify for these exemptions if this activity is not a core part of their business model. So a large warehouse maintained by online sales business for the purpose of storing and delivering goods sold by that business would constitute an essential part of the sales and distribution function of that business, and so the warehousing function would not qualify for the preparatory and auxiliary activity exemption from PE status any more. Those amendments are implemented either in the course of bilateral tax treaty negotiations or through the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (known as the 'Multilateral Instrument'), but some countries have reserved against these. At EU level, the 2016 Commission Recommendation on the implementation of measures against tax treaty abuse encourages Member States to implement the proposed provisions, but it is not a legally-binding tool.

[106] "For example, where the sales force of a local subsidiary of an online seller of tangible products or an online provider of advertising services habitually plays the principal role in the conclusion of contracts with prospective large clients for those products or services, and these contracts are routinely concluded without material modification by the parent company, this activity would result in a permanent establishment for the parent company." (OECD, 2015b).

Furthermore, the final report on Action 1 of the G20/OECD Base Erosion and Profit Shifting BEPS project examined the relevance of defining a new nexus in the form of a significant economic presence. The economic presence would be assessed on the basis of various elements such as revenues, digital factors (local domain names, local digital platforms, local payment options) and users-based factors (such as number of 'monthly active users', online contract conclusion or data collected). This new nexus was not part of the recommendation. However, the report made clear that the evolution of the digital economy warranted further work on the issue and a monitoring of the developments.

c) Transfer of intangible assets

Intangible assets can fairly easily be shifted from one jurisdiction to another, which in the absence of abuse-proof rules opens significant opportunities for aggressive tax planning. The high mobility of intangible assets allows more digitalised companies to benefit from certain tax regimes and push down their tax burden. Profits allocation rules follow contractual arrangements of transactions between intragroup companies. Indeed, legal ownership of intangibles is a decisive factor for determining profits, resulting in entities with little business activity potentially benefitting from high profit allocation (see discussion in Olbert and Spengel, 2017).

Econometric evidence shows the importance of the location of intangible assets, and notably intellectual property, in profit shifting strategies. First, intellectual property is difficult to value, with often no unrelated third-party transaction to determine an arm's length price. This makes it easier to shift profits through transfer-price manipulation. Second, corporate taxation, notably the preferential tax treatment of intellectual property, influences the location of research activities, of legal patent ownership and of the number of patent applications. Dischinger and Riedel (2011) find that a one percentage point increase in the average tax difference to all other group affiliates increases the subsidiary's intellectual property in the balance sheet by about 1.7%. Skeie et al. (2017) find that a 5 percentage point cut in the preferential tax rate on patent income is associated with a 6% increase in patent applications. Several contributions evidence more generally the significant effect of corporate taxation on the number of patent applications (Karkinsky and Riedel, 2012, Griffith et al., 2014, Alstadtsaeter et al., 2018). Alstadtsaeter et al. (2018) find that the effect is mostly due to the favourable tax treatment of patent boxes (and not due to a possible favourable impact on R&D activities), with quite large differences across sectors. As shown in Böhm et al. (2012) the probability of patent relocation to a tax haven is increasing with the value of the patent. Furthermore, the literature provides evidence that controlled foreign company - rules

effectively reduce this form of profit shifting.[107] In general, Beer and Loeprick (2015) find that mandatory documentation requirements are effective in reducing profit shifting by transfer pricing, but this result does not hold for subsidiaries with large intangible assets.

A detailed examination of tax rules confirms the profit shifting opportunities multinational enterprises with sizeable intangible assets have. Out of seven important tax planning structures identified by Ramboll Management Consulting and Corit Advisory (2015), three involve the use of intellectual property. The same study determines the prevalence across Member States of tax rules that are necessary or conducive for the set-up of aggressive tax planning schemes. It identifies 15 Member States whose tax frameworks have elements that directly promote or prompt an aggressive tax planning structure. All but two Member States show a lack of anti-abuse rules. ZEW (2016) estimates the impact of aggressive cross-border tax planning schemes on the effective average tax rates. It shows without ambiguity that placing intellectual property in a country with a generous intellectual property box allows lowering the effective average tax rate significantly - and more than any other tax planning structure. The Anti-Tax Avoidance Directive, which will enter into force in 2019 (with some exceptions), should however strengthen the anti-abuse framework in all Member States through the introduction of a number of legally binding anti-abuse measures. Table 3 summarizes the findings of recent studies on the use of intangibles for profits shifting purposes.

Table (1): Overview of studies evidencing the link between aggressive tax planning and intangible assets

Dischinger and Riedel (2011)	Europe (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 and 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	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

[107] A side effect of this may be that stronger anti-avoidance rules result in increased tax sensitivity of real investment, the rationale being that tax planning MNEs do not care much about tax levels as anyway they largely avoid tax (Sorbe and Johansson, 2016).

		intangible assets	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: updated from Table 3 in SWD(2015) 121 final

Aggressive tax planning opportunities using Intellectual Property are not unique to the digital economy, but they are bigger. Given the larger emphasis on intangible assets in the digital economy (section 2.1.3) and the role of intellectual property for the sector, as discussed above, the opportunities are likely more significant than for traditional businesses.

ii. LACK OF A LEVEL PLAYING FIELD AND DISTORTION OF COMPETITION

Both the outdated rules that do not properly capture digital activities and the relative ease with which more digitalised companies can engage in aggressive tax planning result in competitive distortions. These distortions manifest themselves in various ways. They create an unlevel playing field between different types of companies. This is not only true between those companies that are more digitalised and those that are less, but also between digital companies that pay tax in a given Member State and those that serve the same market

remotely or minimise payments through aggressive tax planning. They also create an unlevel playing field across the Single market, as some Member States feature more prominently in tax planning schemes than others. In the worst case, a significantly lower tax burden can enable larger digitalised companies to drive out competitors from their markets or hinder potential new entrants. This is economically inefficient and hurts innovation, growth and welfare.

Some evidence exists, suggesting that tax planning results in higher mark-ups and competitive advantages. Sorbe and Johannson (2016) analyse firm-level data from 46 countries (mostly OECD and G-20). They find that multinational enterprises that have access to tax planning opportunities have mark-ups that are 13% higher than multinational enterprises that do not have this opportunity. Thy also find that restricting their sample to EU countries results in an even stronger effect. Industry concentration is also higher in industries with more multinational enterprises, but this may be driven by the fact that multinational enterprises tend to be larger. A recent study on the media industry in the Nordic countries (PWC, 2017) argues that there are considerable differences in the direct tax burden between Nordic media players and global players, which result in a competitive advantage for the global players.

Digital businesses models in the EU face a lower effective average tax burden than traditional business models. Based on stylised business models, ZEW (2017) finds that a cross-border digital business model is subject to an effective average tax rate of only 10% compared to a rate of 23% of a cross-border traditional business. Three factors explain this difference. Expenses for the creation of software and other intangible goods, which play a much bigger role for digital businesses,[108] are often immediately deductible whereas physical assets used in the traditional business model are depreciated over time. Businesses active in digital activities typically spend relatively more on R&D activities, for which many countries apply tax incentives. Finally, an important number of countries offer lower tax rates for earnings derived from intellectual property ('Intellectual Property boxes'). To a certain extent, the lower tax levels simply reflect that modern tax policy recognises the importance of R&D and digitalisation for future growth and prosperity. However, beneficial regimes targeting very mobile assets also indicate that countries compete fiercely on this very mobile segment.

Through aggressive tax planning digital businesses can reduce their effective tax burden even further. By placing intellectual property in an intermediary company located in an EU country with an attractive intellectual property box regime, companies can achieve effective

[108] By assumption, the digital business owns assets of only three kinds: intangible assets, software and IT hardware.

average tax rate levels of zero and below (i.e. their activity is effectively subsidised).[109] Table (2) reports effective average tax rates for different business models and type of companies.

Table (2): Effective average tax rates of different model companies

	Domestic company	Multinational group	Multinational group engaged in aggressive tax planning using most beneficial IP box regime
Traditional business model	20.9	23.2	16.2
Digital business model	8.5	9.5	-2.3

Source: Own computations based on ZEW (2016, 2017) and ZEW et al. (2017).
Notes: 1/ Aggressive tax planning by the multinational group is assumed to be done though exploitation of the most beneficial intellectual property regime available in the EU. 2/ For the multinational groups, cross-border investments within the EU and with certain third countries (notably: US, Canada, Japan, Norway and Switzerland) are considered. 3/ The 9.5% for the multinational group with a digital business model is an average of 8.9% for a business-to-business model and 10.1% for a business-to-consumer model.

Both the national tax authorities as well as the wider public that responded to the public consultation have confirmed that the competition between the traditional economy and the digital one is not an equal one. 13 out of 21 national tax authorities and 65% of the respondents to the public consultation agree that "the current international taxation rules do not allow for fair competition between traditional and digital companies".

iii. LESS REVENUE FOR PUBLIC BUDGETS/NEGATIVE IMPACT ON SOCIAL FAIRNESS

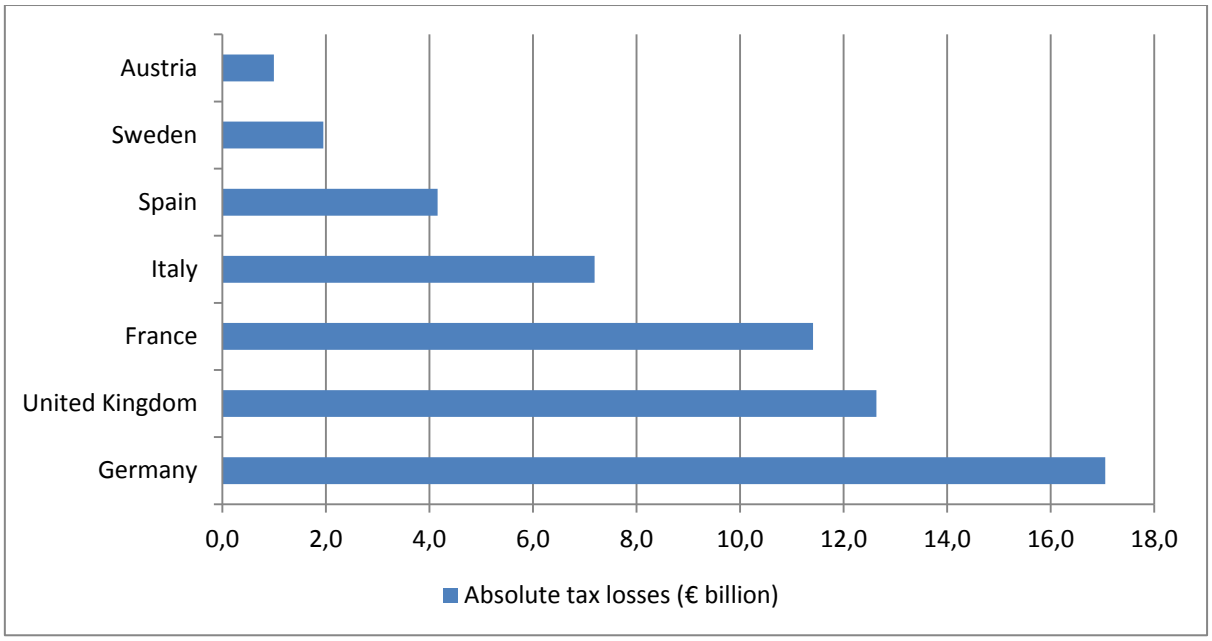
Lower (or even no) taxes paid on profits from digital activities puts at risk the sustainability of EU Member States' public finances. It results in unfair burden sharing across taxpayers, constraints the financing of our social models and ultimately weakens our social contract. Although it is difficult to isolate the share of digital activities, the tax revenue shortfalls from aggressive tax planning activities cost billions of euros every year. It has been estimated in a study for the European Parliament that within the EU the corporate tax revenue losses amount to about EUR 50-70 billion (Dover et al., 2015).[110] This is equivalent on the lower bound to around 0.4% of GDP. Governments of countries, whose tax bases are eroded, either have to raise revenue from other taxes or have less revenues for growth-enhancing reforms and for redistribution purposes to fight inequalities. Recent new estimates by Tørsløv

[109] ZEW (2016)
[110] Their methodology assumes that national deviations from the average corporate tax to gross operating surplus of companies ratio are due to tax avoidance.

et al. (2017) following the Paradise papers scandal show that the aggregated loss to tax havens for Germany, France, Italy and Spain would reach over EUR 40 billion per year (Figure 1).

The perception of the social fairness of the tax system suffers if companies do not contribute their 'fair share' to budgets. Digital businesses conducting sizeable activities in a jurisdiction will usually also benefit from the public infrastructure offered by that jurisdiction. For mostly 'web-based' companies, this will include the physical internet infrastructure, rule of law and judiciary in the country, but also the education and digital skills of potential users. Within the Single market, all companies with cross-border activities benefit from the fundamental freedoms. Therefore, a non-contribution to public budgets is seen as inherently unfair by many and can undermine taxpayer morale. This perception is widely shared by both the national tax administrations as well as the respondents to the public consultations. 14 out of 21 tax administrations as well as 67% of respondent agree that "social fairness is impacted because some digital companies do not pay their fair share of taxes".

Figure (1): Tax revenue losses per year to tax havens (in billion EUR) [111]



Source: Torslov, Wier and Zucman (2017)

iv. RISK OF FURTHER SINGLE MARKET FRAGMENTATION

As the problem becomes more pressing, Member States face increased pressure to adopt national solutions, in the areas of both direct and indirect taxation. Some Member States already have in place targeted regimes, while others are planning to introduce such regimes.

[111] https://www.theguardian.com/commentisfree/2017/nov/08/tax-havens-dodging-theft-multinationals-avoiding-tax

Most recent national tax measures to address the digital economy are in the area of indirect taxation. Hungary introduced an advertisement tax in 2014 and further amended it in 2015), while Slovakia recently started to tax fees resulting from intermediation through websites and online platforms (2018). Certain contributions come in the form of para-fiscal taxes or levies, such as those imposed in France and Germany on the access to content, including digital content.[112] In other countries, various legislative initiatives are being discussed to target digitalised companies, based either on turnover or on sales stemming from certain parts of their business, such as intermediation and the provision of online advertising (UK) or digital B2B transactions of electronically supplied services (Italy).[113] Furthermore, a group of Member States recently called for a new taxation intended to re-capture part of what the digitalised companies should be paying in terms of corporate income tax in the form of a so-called 'equalisation levy' imposed on the turnover of such companies[114].

In the realm of direct taxes, the measures introduced so far deal with the profit-shifting issue in general, and are not specifically targeting digitalised companies. The United Kingdom has introduced a measure in the form of a 'diverted profit tax' as of 2015 and Italy has introduced new administrative procedures for large non-resident MNEs as of 2018. Table (6) in section 9.1 and Table (1) in Annex 6 provide an overview of relevant national taxes.

An uncoordinated implementation of national measures adds distortions to the functioning of the single market, also contributing to business uncertainty on the future tax framework. The introduction of country-specific tax regimes leads to distortions of competition and may result in double taxation of digitalised companies that supply cross-border services in the single market. This hurts the competitiveness of the EU as a whole and adds uncertainty. Moreover, a patchwork of national measures generates new incentives and opportunities for tax arbitrage. 15 out of the 21 national tax authorities questioned on this topic agree that "the current situation could push some Member States toward adopting uncoordinated measures that would lead to the fragmentation of the Single market". In the case of the respondents to the public consultation, this risk has been identified by 82% of them, signaling that stakeholders are weary of the possible consequences that the current situation might have, in the absence of a coordinated approach.

---

[112] Such levies are used to finance funds dedicated to the support of the development of domestic cinematography and content. Also, in the context of the revision of the Audio-visual Media Services Directive, the Commission has proposed (COM 2016/0287 final, Art. 13) to allow Member States to impose financial contributions (direct investments or levies allocated to national film funds) to on-demand services in their jurisdictions as well as, under certain conditions, to those established in a different Member State but targeting their national audiences.

[113] See Annex 6 for further details.

[114] See the Political statement/Joint initiative on the taxation of companies operating in the digital economy – http://www.mef.gov.it/inevidenza/banner/170907_joint_initiative_digital_taxation.pdf submitted by Germany, France, Italy and Spain to the Estonian Presidency of the Council in September 2017.

ANNEX 8: METHODOLGY BEHIND REVENUE ESTIMATES FOR THE INTERIM OPTIONS

TOP-DOWN ESTIMATES

The starting point is data and forecasts published by Statista on revenue in different digital markets. Statista classifies the digital market into 8 main categories (e-services[115], e-commerce, digital media, digital advertising, e-travel, connected car, e-health, smart home), which are further broken down in subcategories. Cloud computing is covered separately. For e-payment there has been no reliable data on revenues earned in the sector (only on transaction volumes). Note that e-commerce, connected car, e-health, and smart home all relate to applications for physical goods and are not within the scope of this exercise. The table below shows how these categories relate to the business models used in this impact assessment. As reference year, Statista forecasts for 2019 were used. All estimates are static, that is they do not take into account any behavioural responses.

Classification in this impact assessment	Statista classification
Advertising	Digital advertising
Marketplace/intermediary	E-services and e-travel
Digital content/solutions	Digital media and cloud computing
of which digital media	Digital media

Data from the AMECO database on GDP in 2019 and the US dollar/EUR exchange rate were used to convert figures into EUR and GDP figures. To arrive at shares of turnover earned by companies above the general revenue threshold, an analsyis done for the CCCTB impact assessment based on firm level data (from the Orbis database) was used. This gave the share of entities and share in turnover of companies above a, respectively, EUR 50/500/750 million threshold. A caveat is that it may well be that the size distribution is different for companies in the digital sector. A specific revenue threshold on relevant digital activities is not explicitly accounted for in these estimates. At least for most relevant companies above the EUR 750 million threshold and with significant relevant activities the specific threshold is not expected to be binding.

[115] E-services is composed mainly of event tickets, restaurant delivery/online takeaway, fitness applications, and online dating services.

In the gross revenue estimates, the pure revenue from the new tax is computed. In the net revenue estimates, it is assumed that the digital revenue tax would be a deductible business expense for corporate income tax purposes, which would reduce corporate income tax revenue. To account for this, we used the average statutory corporate income tax rate in the EU (about 23%).

BOTTOM-UP ESTIMATES

The starting point for the analysis was a list of 112 large multinational companies. These include the 100 top global digital multinational companies analysed in UNCTAD (2017b) in addition to 12 other companies that were also considered relevant and have not been covered in the UNCTAD report, in some cases since they required that companies publish certain information in their financial reports. The 12 companies that were added are from each of the four business models analysed in this impact assessment.

Web Visits were obtained from SimilarWeb (www.similarweb.com) by adding up all visits from residents of a country to a domain, and then summing up all domains and sub-domains belonging to the same company. Web visits data were obtained by SimilarWeb for the year 2016 and the first semester of 2017. Estimates for sales are obtained by allocating global consolidated turnover (for 2017 or, if not available, 2016 or 2015) for the 112 companies to each country proportionally to the share of Web visits. The top companies were selected ranking them by global consolidated revenues, based on data published by UNCTAD. The list includes a heterogeneous set of companies who mostly operate their business through the Internet (i.e. search engines, social networks, media content providers, cloud computing services, e-commerce companies, providers of financial information and data, payment platforms). The largest company included has global consolidated revenues of about US dollar 136 billion; the smallest of about 0.4 BLN/USD. To convert US dollar to euros, an average exchange rate of 0.90 was assumed.

The measures of web visits to the web domains of these selected companies are used to proxy for the amount of sales that would be assigned to a given EU Member country according to a proportionality criterion. The ratio of total Web visits originated from an EU Member State over global Web visits is multiplied by global revenues to obtain the bottom-up tax base estimates. These revenue figures are then employed to estimate the gross revenue effects of a revenue tax, assuming that the tax is designed in a way that allows to capture the full amount of imputed value.

Some caveats are in order with respect to the calculations:

1. Some companies use web domains as part of their marketing strategy, differentiating between countries and consumer profiles. Often there is no comprehensive list

available of all the domains belonging to a company, so information from multiple sources was exploited (Google, Wikipedia, specialized Web sites) to match Web domains to companies. The resulting domain list is very comprehensive but still, possibly incomplete.

2. A comparison of sales figures reported in the financial accounts of some very large e-commerce companies using Orbis data against the corresponding measure of web visits shows that they positively and significantly correlate. Some of the companies in the list though are not as well captured by web visits as a proxy for the location of web sales. This is the case for hardware or information providers who might be using IP addresses not associated with a web domain. The same holds for videogame producers, because games on the internet are often sold and operated through intermediaries who may have their own web domains. For these companies therefore the allocation of sales by country based on Web visits can be less dependable. Note, though, that these companies are minority in the list, both in terms of number of company appearing in the list, even more so in terms of their overall sales (about 11% of total revenues from all included companies).

ANNEX 9: PROPERTIES OF A DESTINATION-BASED CASH-FLOW TAX

The destination-based cash flow tax (DBCFT) has the potential to do away with most of the significant distortions embedded in traditional corporate tax systems. Theoretically it can address tax induced distortions i) to the amount and type of domestic investment, ii) to the financing choice between debt and equity, iii) to the choice of organisational form, iv) to the international location of real investment, and to v) the international location of tax base (Devereux and Sorensen, 2006).

A number of its beneficial properties are not dependent on universal adoption but can also be re-aped when implemented unilaterally. With a cash flow tax, marginal investments, i.e. those investments that are just worthwhile being undertaken in the absence of any tax, are not taxed. As a result the level of investment is the same as if there was no tax at all. Moreover, debt and equity financing costs receive the same tax treatment. Another theoretical advantage is the simplicity of the system as recording of cash flows is easy. A destination-based cash flow tax adds an element of border adjustment, which shifts the taxation right to the place of sale of a good or service.

However, in addressing international distortions, it is important to distinguish universal adoption by all countries from a unilateral or only partial adoption. Distortions to the location of real investments would only be removed if the tax is adopted by all countries. Otherwise, there would be a tax induced incentive to locate these investments in the jurisdiction that operates the destination-based cash flow tax. Finally, only if it were adopted universally, the system is robust against tax avoidance through inter-company transactions (Auerbach et al., 2017, Devereux and Sorensen, 2006). Common tax avoidance channels, such as the use of inter-company debt, locating intangible property in low tax jurisdictions and abuse of inter-company transfer pricing, would no longer be effective in reducing the tax burden of companies. In contrast, adoption of only a subset of countries would lead to intensified tax avoidance problems for countries that have not adopted the reform. For the same reason, countries who have not adopted the reform would have an incentive to do so.

In other words, if the EU was to unilaterally introduce a destination-based cash flow tax then there will continue to be incentives to shift profits through manipulation of transfer pricing, but the incentives will pull more towards the EU (potentially at the expense of the EU tax base). The interaction of a destination-based business tax system with traditional source-based business tax systems may also create new opportunities for tax avoidance.

It should however be noted that to the extent that the DBCFT would apply only to business-to-business transactions and not to business-to-consumer transactions – given the practical difficulty to implement this – the problems of the definition of a taxable presence and of the allocation of profit for the digital sector would remain identical and that the solution would

still require an adaptation of the definition of a permanent establishment and of its attributed profits.

ANNEX 10: MACROECONOMIC IMPACT OF CHANGES IN THE CCCTB FORMULA

To simulate the effect of changes to the formula, the CORTAX model – a computable general equilibrium model – was used (see Annex 4 for the methodological details). In CORTAX there is one multinational headquarter per country with subsidiaries in all 28 Member States, that is multinational enterprises are tax resident in all EU Member States. Thus the model in its baseline does not explicitly account for the problem of lack of permanent establishment. This is instead indirectly captured through the calibration of the current distribution of tax revenue across Member States.

To model the impact of factoring in user contribution in the formula, four alternatives to the one currently proposed formula have been modelled. All formulas use the assumption that digital firms represent 5% of the economy.[116] In the first three formulas, a 'digital input factor' was added to the formula, affecting the apportionment of profits for the 'digital companies' representing 5% of the economy. The location of digital firm activity by country was proxied using total page views, in relative terms, for the top 50 web sites across the EU. In the absence of data linking page views by multinational location, the same digital presence for all EU multinationals was assumed.[117] The first two alternatives keep the formula for all other companies the same as before.

(i) Alternative 1: four factors for the digital.
0.05 * (1/8 wages, 1/8 employees, 1/4 capital, 1/4 sales, 1/4 user input) +
0.95 *(1/6 wages, 1/6 employees, 1/3 capital, 1/3 sales)

[116] The estimation of the size of value added from digital products is challenging and no agreed-upon methodology is yet available. Estimates depend on the employed definition of digital economy, for which there is no broad consensus. The Boston Consulting Group combines data from the OECD and national statistical agencies to estimate an average direct contribution of the digital economy to GDP in G20 countries of 5.1%, with a maximum in UK of 10.4% and a minimum in Indonesia of 1.4%. Alternative estimates from consulting firms and professional associations (like The Internet Association, which represents the interests of many giant companies: Google, Amazon, Airbnb, Salesforce, and many more) point to about 6% of GDP in the U.S. coming from purely Web-based businesses. The OECD Internet Economy Outlook 2017 estimates that 5.4% of global value added in the OECD area in 2015 directly comes from information and telecommunication (ICT) products although this sector encapsulates a wide array of activities going beyond web companies while possibly missing significant major digital companies (for instance, Amazon is listed under the SIC code 5961 which is not included in the OECD definition of ICT). UNCTAD (2017c) estimates that the value added for the EU amounts to 4.3%. Taking stock of the lack of a consensus definition of the digital economy and absent any data more dependable than these, 5% looks like a reasonable estimate and we employ it as a conventional figure for our simulations.

[117] This is likely to put additional emphasis on subsidiaries relative to multinational headquarters, as some home country bias may exist.

(ii) Alternative 2: user input for the digital.

0.05 * (0 wages, 0 employees, 0 capital, 0 sales, 1 user input) +

0.95 * (1/6 wages, 1/6 employees, 1/3 capital, 1/3 sales)

(iii) Alternative 3: user input for the digital and sales for the traditional.

0.05 * (0 wages, 0 employees, 0 capital, 0 sales, 1 user input) +

0.95 * (0 wages, 0 employees, 0 capital, 1 sales)

(iv) Alternative 4: sales for the digital and the traditional

0.05 * (0 wages, 0 employees, 0 capital, 1 sales) +

0.95 * (0 wages, 0 employees, 0 capital, 1 sales)

As the results in Table (1) show, there is hardly any impact at the macro-level. Adding a digital factor for digital companies while keeping the formula constant for all other firms (Alternatives 3 and 4), results in a negligible additional positive economic impacts at EU level. If one applies a 'sales by destination principle' (Alternatives 3 and 4), at least for all non-digital companies, there is a negligible lower economic impact.[118] There are two factors that suggest that the overall impact could be slightly larger. First, if one takes into account that the share of the digital economy is likely to grow significantly, the impact should grow accordingly for Alternatives 1 and 2. If one assumed growing compliance costs in the baseline scenario due to new national measures applied over time, the impact would be more positive as well.

Table (1): Economic effects of applying different formulas in the CCCTB for the EU aggregate

[118] A key advantage, not captured here, is that the destination of sales cannot be easily manipulated because, in any case, companies always have an incentive to sell as much as possible in a given location. In the US, where states use formulary apportionment to attribute corporate tax base, there has been a trend to increasingly use sales in the formula (and in parallel, reduce the weight of other factors) (Yonah et al, 2014).

	CCCTB-MNEs Baseline	CCCTB-MNEs (1)	CCCTB-MNEs (2)	CCCTB-MNEs (3)	CCCTB-MNEs (4)
Cost of capital (% points change)	-0.150	-0.150	-0.151	-0.142	-0.142
Investment (percentage change)	1.578	1.582	1.593	1.569	1.557
Wage (percentage change)	0.720	0.721	0.723	0.699	0.695
Employment (percentage change)	0.355	0.355	0.357	0.356	0.354
GDP (percentage change)	0.531	0.532	0.535	0.522	0.519
Revenue CIT (% GDP)	-0.478	-0.479	-0.482	-0.474	-0.470
Welfare (% GDP)	0.120	0.120	0.120	0.117	0.117

Source: European Commission Joint Research Centre, based on the CORTAX model. The baseline corresponds to the simulation in Table B.49 of Appendix B in Joint Research Centre of the European Commission (2016).

ANNEX 11: COMPATIBILITY OF PREFERRED INTERIM SOLUTION WITH EU LAW

The preferred interim option is compatible with the fundamental freedoms of the TFEU. Currently member States are allowed to design their own direct tax systems, however they have to respect the obligations imposed by the Treaties. Considering its main features, the interim solution would not infringe the internal market freedoms of establishment[119] (article 49 TFEU) and to provide services[120] (article 56 of TFEU) as interpreted by the CJEU. The scope of the tax will include both non-resident and domestic transactions and companies. Cross-border activities/companies will be not taxed heavier than similar domestic ones. In the light of the CJEU[121] only one rate will apply. Thresholds have to be set in such a way as to not systematically exclude domestic companies from the scope of the tax.

The preferred interim option would also be compatible with VAT rules. According to the VAT Directive, any taxes, duties or charges are compatible with VAT as long as they cannot be characterised as turnover taxes. As interpreted by the existing case-law of the CJEU, any tax, duty or charge is not to be found as qualifying as 'turnover tax' if it does not display at least one of the essential characteristics of VAT. Such essential characteristics of VAT have been defined by the CJEU in the following way[122]: (i) it applies **generally** to transactions relating to goods or services; (ii) it is **proportional to the price** charged by the taxable person in return for the goods and services which he has supplied; (iii) it is charged at **each stage** of the production and distribution process, including that of retail sale, irrespective of the number of transactions which have previously taken place; and (iv) the amounts paid during the preceding stages of the process are **deducted** from the tax payable by a taxable person, with the result that the tax applies, at any given stage, only to the value added at that stage and the final burden of the tax rests ultimately on the consumer.

The interim measure could not be seen as having the essential characteristics 1 and 4 of VAT, given that it would not be applied to goods and services generally[123], and that no deduction of tax paid in previous stages of the production would be allowed. As regards the

---

[119] CJEU, judgement of 14 September 2017, *Trustees of the P Panayi Accumulation & Maintenance Settlements*, C‑646/15, EU:C:2017:682, paragraph 43"*All measures which prohibit, impede or render less attractive the exercise of the freedom must be considered to be restrictions on freedom of establishment (judgment of 21 May 2015, Verder LabTec, C‑657/13, EU:C:2015:331, paragraph 34 and the case-law cited)"*

[120] CJEU, judgment of 22 October 2014, *Blanco and Fabretti*, joined Cases C-344/13 and C-367/13, EU:C:2014:2311.

[121] CJEU, judgment of 5 February 2014, *Hervis Sport*, C-385/12, EU:C:2014:47.

[122] CJEU, judgment of 3 October 2003, *Banca popolare di Cremona*, C-475/03, EU:C:2006:629, paragraph 28; CJEU, judgment of 11 October 2007, *Kogaz and others*, C-283/06, EU:C:2007:598, paragraph 37. See also CJEU, judgment of 8 June 1999, *Pelzl and others*, C-338/97, EU:C:1999:285, paragraph 21; and CJEU, judgment of 31 March 1992, *Dansk Denkavit,* C-200/90, EU:C:1992:152, paragraph 11;

[123] See CJEU, judgment of 19 March 1991, *Giant v Overijse*, C-109/90, EU:C:1991:126, paragraph 14.

essential characteristic 2 of VAT, where there is a tax based on the gross turnover of a business during a specific period, it would not be possible to determine the precise amount of that charge which may be passed on to the client. Based on the existing case-law of the CJEU,[124] if it is not certain if and to what extent that tax will be borne by the final consumer, the tax cannot be said not to be proportional to the price charged, and therefore, the measure cannot be seen as having the essential characteristic 2 of VAT.

Given that at least one of the essential characteristics of VAT is not displayed, it seems safe to assume that the interim measure does not jeopardise the functioning of the common system of VAT by being levied on the movement of goods or services and on commercial transactions in a way comparable to VAT, and that it would not qualify as a 'turnover tax' for the purposes of Article 401 of the VAT Directive, thus being VAT-compatible.

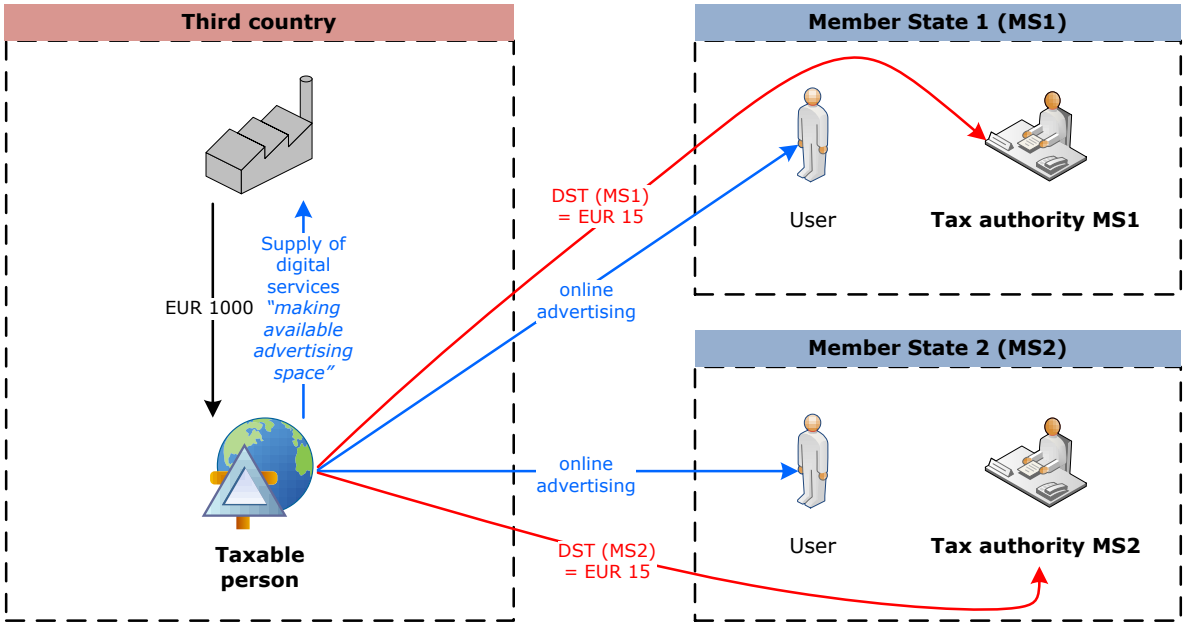
[124] See *Pelz and others*, paragraph 25; and Giant *v Overijse*, paragraph 14.

ANNEX 12: INTERIM SOLUTION – HOW IT WOULD WORK IN PRACTICE

Example 1 – advertising activities (I)

This scenario covers the provision of services consisting in the making available of advertising space online, by a third-country taxable person to another third-country party. The services target users in the EU. The revenues obtained from the supply of the advertising service are paid from the third country, but since the targeted users are in the Member State 1 and Member State 2, DST is due in those Member States. The DST due is apportioned between Member States 1 and 2 according to the number of times an advertisement has been displayed (we assume one display for each user). Therefore, the DST is divided equally between Member State 1 and Member State 2.

- DST rate = 3%
- It is assumed that all payments are in EUR

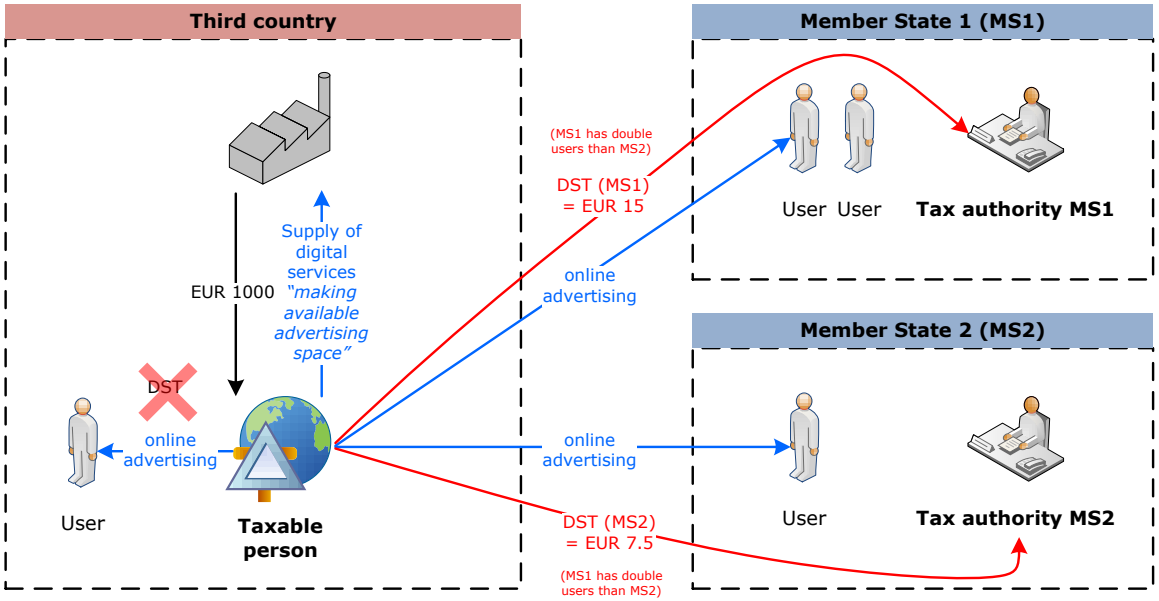


- DST taxable revenues = EUR 1000
- Place of taxation? Member States where users are located (MS1 and MS2).
- Apportionment in each MS propportional to the number of users in those MS (EUR 500 in each MS)
- DST due in MS1 (3% x 500) = EUR 15
- DST due in MS2 (3% x 500) = EUR 15

Example 2 – advertising activities (II)

Same as Example 1, but the taxable person not only targets EU online users, but also users in the third country, and the payment cannot be linked to a specific supply of online advertising service but constitutes consideration for all of them. No DST liability arises in respect of users in the third country, although users outside of the EU are taken into account for the apportionment of taxable revenues to the EU. Another characteristic of this scenario is that the number of users in Member State 1 doubles the number of users in Member State 2. That will be reflected in the apportioned DST to be paid in Member State 1 and Member State 2.

- DST rate = 3%
- It is assumed that all payments are in EUR

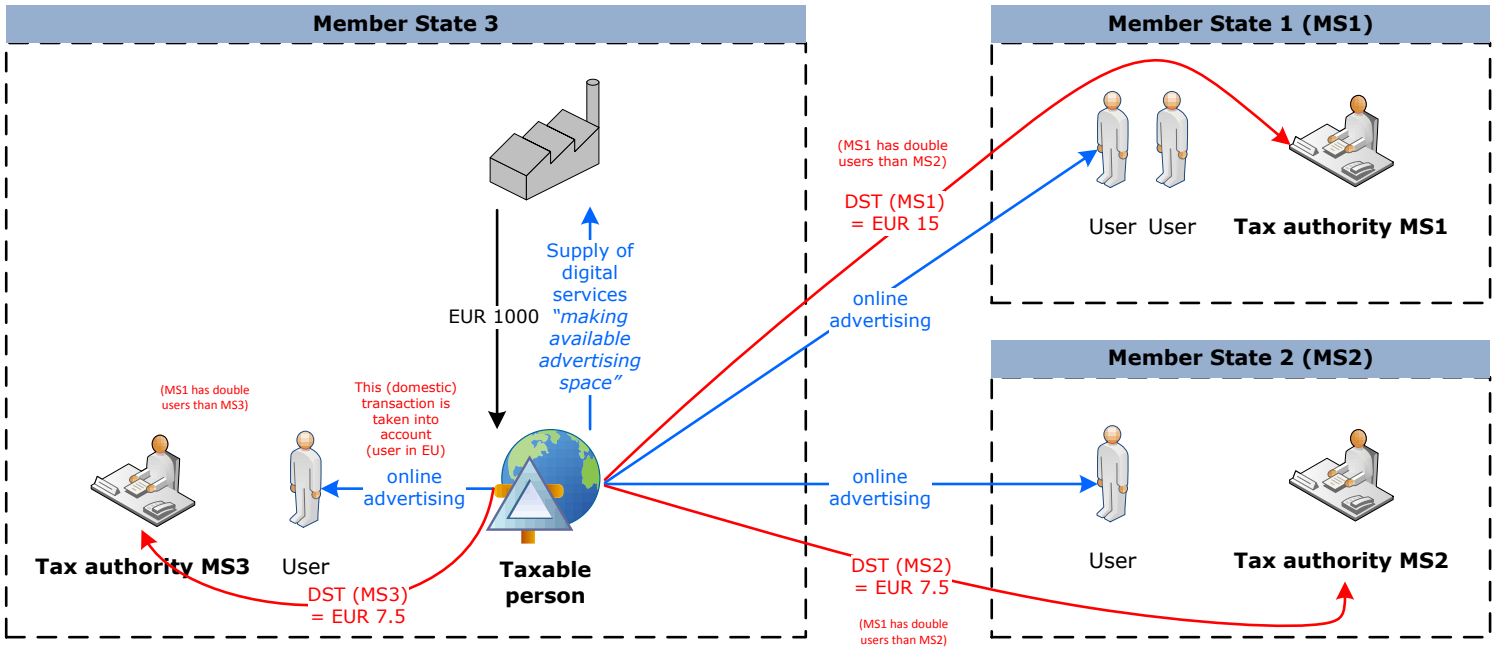


- DST taxable revenues = EUR 1000
- Place of taxation? Member States where users are located (MS1 and MS2)
- Apportionment in each MS proportional to the number of users in those MS (EUR 250 in third country, EUR 500 in MS1 and EUR 250 in MS2)
- DST due in MS1 (3% x 500) = EUR 15
- DST due in MS2 (3% x 250) = EUR 7.5

Example 3 – advertising activities (III)

In this case, the taxable person is established in the EU (Member State 3), unlike in example 2. Because of that, the online advertising targeting "domestic" users in Member State 3 must be taken into account, and DST will be payable in Member State 3 too. Again, the number of times an advertisement has been displayed in each Member State will have to be taken into account for the apportionment of DST.

- DST rate = 3%
- It is assumed that all payments are in EUR

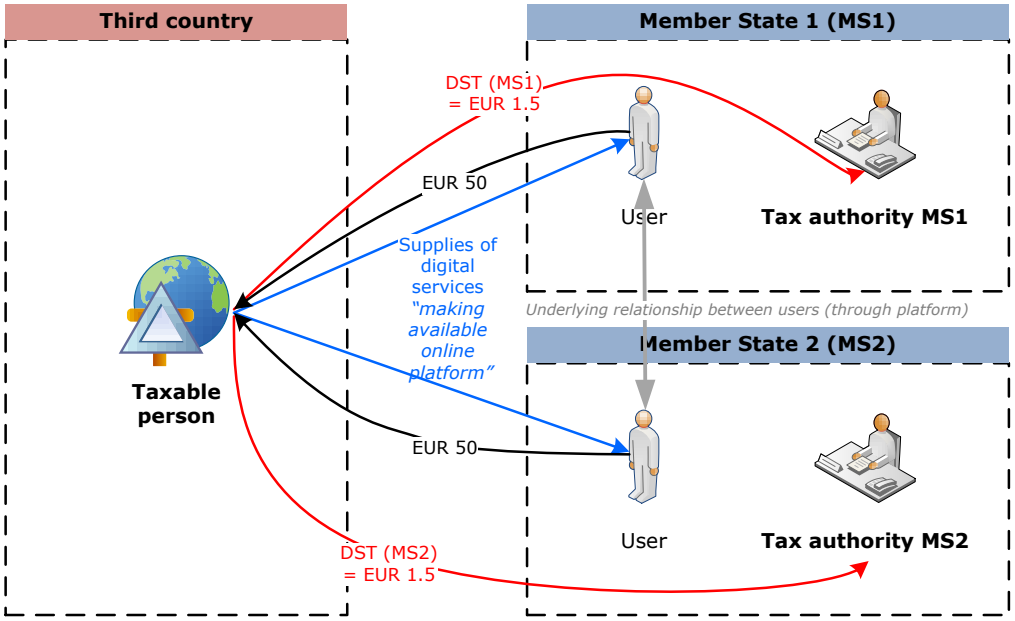


- DST taxable revenues = EUR 1000
- Place of taxation? Member States where users are located (MS1, MS2 and MS3)
- Apportionment in each MS proportional to the number of users in those MS (EUR 500 in MS1, EUR 250 in MS2 and EUR 250 in MS3)
- DST due in MS1 (3% x 500) = EUR 15
- DST due in MS2 (3% x 250) = EUR 7.5
- DST due in MS3 (3% x 250) = EUR 7.5

Example 4 – online platforms (I)

This scenario covers the provision of services consisting in the making available of online platforms allowing its users to meet and interact (we assume that there is an underlying supply between the users). That service is provided by a third-country taxable person to users in the EU. In this scenario, both users pay to the online platform for being able to access it and to conclude transactions between them. The place of taxation is where the users are (Member State 1 and Member State 2), and DST must be apportioned based on the number of users having concluded a transaction in a given Member State (in this case, equally divided between Member State 1 and Member State 2).

- DST rate = 3%
- It is assumed that all payments are in EUR

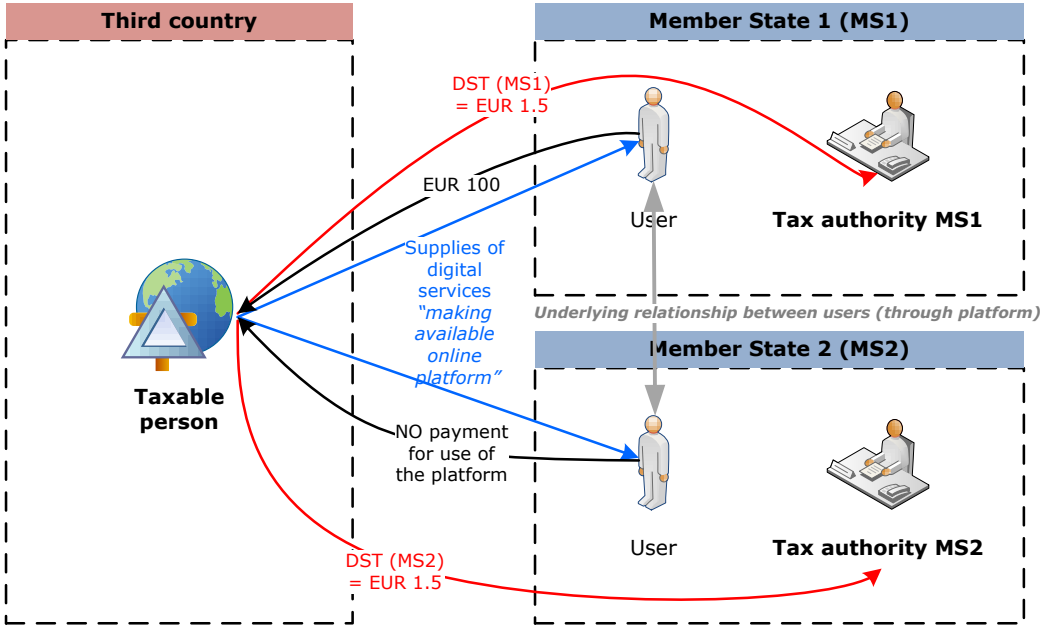


- DST taxable revenues = EUR 100
- Place of taxation? Member States where users are located (MS1 and MS2)
- Apportionment in each MS proportional to the number of users in those MS (EUR 50 in MS1 and EUR 50 in MS2)
- DST due in MS1 (3% x 50) = EUR 1.5
- DST due in MS2 (3% x 50) = EUR 1.5

Example 5 – online platforms (II)

Same as example 4, but only one of the two users of the online platforms pays for the digital service received. That does not affect the place where the DST is due (Member State 1 and Member State 2), which is determined based on the location of the users having concluded an underlying transaction, and irrespective of the place where the payment is made. The fact that one of the users accesses the platform and concludes underlying transactions for free has no impact.

- DST rate = 3%
- It is assumed that all payments are in EUR

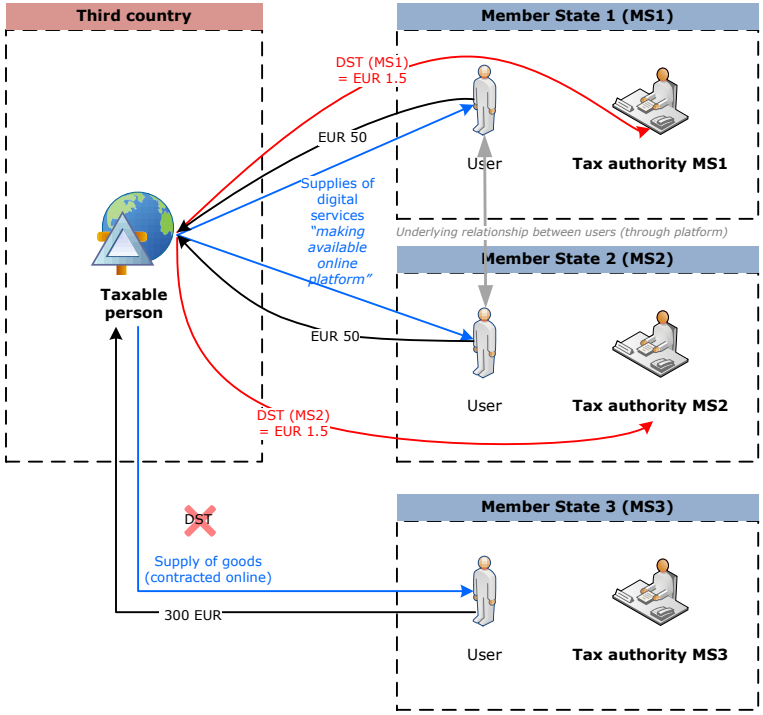


- DST taxable revenues = EUR 100
- Place of taxation? Member States where users are located (MS1 and MS2)
- Apportionment in each MS proportional to the number of users in those MS (EUR 50 in MS1 and EUR 50 in MS2)
- DST due in MS1 (3% x 50) = EUR 1.5
- DST due in MS2 (3% x 50) = EUR 1.5

Example 6 – mixed business models

This scenario illustrates a taxable person established in a third country with a mixed business model, obtaining revenues from several activities (the making available of an online platform, but also the sale of his own goods via a website). In such a case, it is necessary to identify the several revenue streams that the company has. Those revenues corresponding to the online sale of goods would remain out of the scope of the DST (they would not qualify as taxable revenues), and this is why the DST liability of the company would not change in respect of example 4.

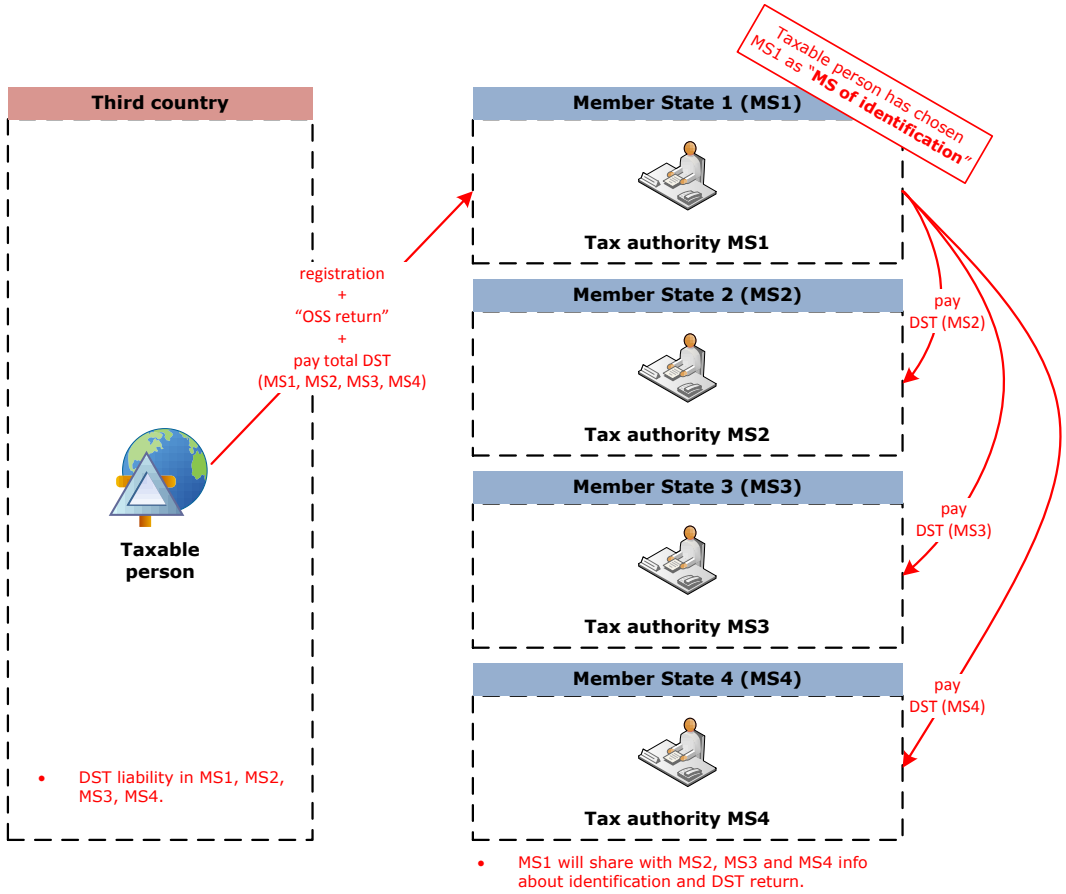
- DST rate = 3%
- It is assumed that all payments are in EUR



- TOTAL revenues = EUR 400
- **DST taxable revenues = EUR 100 (EUR 300, from supply of goods, out of scope)**
- Place of taxation? Member States where users are located (MS1 and MS2)
- DST taxable revenues, apportionment in each MS proportional to the number of users in those MS (EUR 50 in MS1 and EUR 50 in MS2)
- DST due in MS1 (3% x 50) = EUR 1.5
- DST due in MS2 (3% x 50) = EUR 1.5

Example 7 – obligations (OSS)

The tax envisages the use for taxable persons of a One-Stop-Shop (OSS) in order to register, submit the DST return, and pay DST. That means that he has a single contact point ("Member State of identification") through which all these obligations will be fulfilled. It is for the Member State of identification to exchange the information obtained from the taxable person (identification and DST return), as well as to pay the corresponding amounts of DST due in other Member States.



ANNEX 13: WORK AT THE OECD

Tax Policy Approach and Timeline of the OECD work on the interim report of the OECD Task Force for the taxation of the digital economy

Tax policy approach of the OECD for the taxation of the digital economy.

The latest meetings of the Task Force on the Taxation of the Digital Economy (TFDE) were held in Paris from 11.12 to 13.12. 2017 and from 13.3. to 15.3. 2018. Before the December Paris meeting there were trilateral (EE PR & Council Secretariat General, OECD and COM) and bilateral (OECD and COM) meetings to discuss and coordinate. This close coordination is reflected in the ECOFIN Council Conclusions from 5 December 2017 for the taxation of the digital economy.

Main elements covered in the OECD Interim report

The OECD interim report on the taxation of the digital economy was published and presented to the G20 Finance Ministers in March 2018. The interim report reflects different options to address these challenges and the OECD intends to seek a consensus based solution by 2020.

The table below illustrates the main elements of the OECD interim report with a reference and comparison to the corresponding elements in the EU project.

–Element in the OECD interim report	**Corresponding EU elements**
Taxation challenges arising from the digitalisation of the economy (Chapter 1)	Commission Communication from 21.9.2017 and this impact assessment report
Business models and value creation in the digitalised economy (Chapter 2)	This impact assessment report
Progress with BEPS implementation and tax policy developments in the taxation of the digitalised economy (Chapters 3 and 4)	This impact assessment report (description of the dynamic baseline). The main implementation of the outcome of the OECD BEPS project is included in the two Anti-Tax Avoidance Directives adopted in 2016).
Adapting the international tax system and options for interim measures (Chapters 5 and 6)	EU comprehensive measures consisting of a proposal for a Council Directive on digital presence and profit allocation rules for intra EU situations and a Recommendation for amending Double Tax Conventions concluded between EU Member States and third countries. The EU interim measure will be a proposal for a Council Directive on a common system of a tax on certain digital services.
Impact of digitalisation on other aspects of the tax system: opportunities and risks (Chapter 7)	Not part of the Commission March package.
Conclusions & next steps (Chapter 8)	The Bulgarian presidency is planning to treat the

	EU legislative proposals as a priority. Four meetings are scheduled in April. The incoming Austrian presidency also has expressed an interest, but no decision has been taken.

ANNEX 14: REFERENCES

Accenture (2016), 'Technology Vision 2016', p. 41-43, available at https://www.accenture.com/t20170227T030304__w__/us-en/_acnmedia/PDF-20/Accenture-Technology-Trends-Technology-Vision-updated.pdf

Alstadtsæter, A., Barrios, S., Nicodeme, G., Skonieczna, A. and A. Vezzani (2018), 'Patent Boxes Design, Patents Location and Local R&D', forthcoming in *Economic Policy*.

Auerbach, A., Devereux, M.P., Keen, M. and Vella, J. (2017), 'Destination-based cash flow taxation', Oxford University Centre for business taxation, Working paper series 2017, WP 17/01.

Autor, D., Dorn, D., Katz, L.F., Patterson, C. and J. van Reenen (2017), 'The Fall of the Labour Share and the Rise of Superstar Firms', *NBER Working Paper No. 23396.*

Avi-Yonah, R. and Xu., H. (2017), 'Evaluating BEPS', Erasmus Law Review, Vol. 10, no. 1, pp. 3-11.

Beer, S., and J. Loeprick, J. (2015), 'Profit Shifting: Drivers of Transfer (Mis)pricing and the Potential of Countermeasures', *International Tax and Public Finance*, 22(30): 426-451.

Benedek, D., De Mooij, R.A., Keen, M and P. Wingender (2015), 'Estimating VAT Pass Through', *IMF Working paper*, WP/15/214.

Best, M.C., Brockmeyer, A., Kleven, H.J., Spinnewijn, J. and Waseem, M. (2015), 'Production versus revenue efficiency with limited tax capacity: Theory and evidence from Pakistan', *Journal or Political Economy*, Vol. 123, No. 6.

Bloch, F. and Demange, G. (2018), 'Taxation and privacy protection on internet platforms, *Journal of Public Economics*, forthcoming.

Blum, D.W. (2015), 'International/OECD – Permanent establishment and action 1 on the digital economy of the OECD base erosion and profit shifting initiative – The nexus criterion redefined?', Bulletin for International Taxation, 2015 (Volume 69), No 6/7.Böhm, T., Karkinsky, T., and N. Riedel (2012), 'The Impact of Corporate Taxes on R&D and Patent Holdings', Paper Presented at the *2012 TAPES Conference* in Oxford.

Brauner und Pistone (2017), 'Adapting Current International Taxation to New Business Models: Two Proposals for the European Union', *Bulletin for International Taxation*, Vol. 71, No. 12.

Colin (2013), 'Corporate tax 2.0: Why France and the world need a new tax system for the digital age', *Forbes* https://www.forbes.com/sites/singularity/2013/01/28/corporate-tax-2-0-why-france-and-the-world-need-a-new-tax-system-for-the-digital-age/

Commission Expert Group on Taxation of the Digital Economy (2014), *Report*, Brussels.

Devereux, M.P. and de la Feria, R. (2014), 'Designing and implementing a destination-based corporate tax', *Oxford University Centre for business taxation, Working paper series* 2014, WP 14/07.

Devereux, M.P. and P.B. Sørensen (2006). 'The Corporate Income Tax: international trends and options for fundamental reform', *European Commissions Economic papers N° 264.*

Dischinger, M., and Riedel, N. (2011), 'Corporate taxes and the location of intangible assets within multinational firms', *Journal of Public Economics*, Vol. 95, pp. 691-707.

Dondena & IHS (2017), Literature review on taxation, entrepreneurship and collaborative economy. *Taxation Papers*.

Dover, R., Ferrett, B., Gravino, D., Jones, E., and Merler S. (2015), 'Bringing transparency, coordination and convergence to corporate tax policies in the European Union, Part I Assessment of the magnitude of aggressive corporate tax planning', study for the *European Parliamentary Research Service*.

Einav L., Knoepfle, D., Levin, J. and Sundaresan, N. (2014), 'Sales Taxes and Internet Commerce', *American Economic Review*, 104(1), pp. 1–26.

Emran, M. S., and Stiglitz, J. E. (2005), 'On selective indirect tax reform in developing countries', *Journal of Public Economics*, Vol. 89, pp. 599-623.

Evans, D. S. and Schmalensee, R. (2016), 'Why Winner-Takes-All Thinking Doesn't Apply to the Platform Economy', *Harvard Business Review*, 4 May 2016, https://hbr.org/2016/05/why-winner-takes-all-thinking-doesnt-apply-to-silicon-valley

European Commission (2012), 'Economic Study on Publications on all Physical Means of Support and Electronic Publications in the context of VAT', p. 98

European Commission (2017a), Taxation Trends in the European Union: Data for the EU Member States, Iceland and Norway. Edition 2017.

European Commission (2017b), '2017 PREDICT Key Facts Report - An Analysis of ICT R&D in the EU and Beyond', *JRC Science for Policy Report*.

France Stratégie (2015), 'Taxation and the digital economy: A survey of theoretical models – Final report', *Study for France Stratégie* with contributions from Bacache, M., Bloch, F., Bourreau, M., Caillaud, B., Cremer, H., Crémer, J, Demange, G., de Nijs, R., Gauthier, S. and Lozachmeur, J.-M.

Goolsbee, Austan (2000), 'In a World Withouth Borders: The Impact of Taxes on Internet Commerce', *The Quarterly Journal of Economics*, 115(2), pp. 561-576.

Gordon, R., and Li, E. (2009), 'Tax structures in developing countries: Many puzzles and a possible explanation', *Journal of Public Economics*, Vol. 93, pp. 855-866.

Griffith, R., Miller, H., and O'Connell, M. (2014), 'Ownership of intellectual property and corporate taxation'. *Journal of Public Economics* Vol. 112, pp. 12–23.

Hallerstein, W. (2014), "Jurisdiction to Tax in the Digital Economy: Permanent and Other Establishments", *Bulletin for International Taxation*, 68(6/7): 348-349.

Haucap, J. and U. Heimeshoff (2014), "Google, Facebook, Amazon, eBay: Is the Internet driving competition or market monopolization?", *International Economics and Economic Policy*, Vol. 11/1-2, pp. 49-61, http://dx.doi.org/10.1007/s10368-013-0247-6.

HM Treasury (2017), 'Corporate tax and the digital economy: position paper', November 2017.

Hongler and Pistone (2015), 'Blueprints for a new PE Nexus to tax business income in the era of the digital economy, *IBFD Working paper*.

Joint Research Centre of the European Commission (2016), 'Modelling corporate tax reform in the EU: New calibration and simulations with the CORTAX model', *Report by the Joint Research Centre*.

IAB Europe and IHS Markit (2017), 'The economic contribution of digital advertising in Europe', available at: http://iabsverige.se/project/the-economic-contribution-of-digital-advertising-in-europe/

Karkinsky, T., and Riedel, N. (2012), 'Corporate taxation and the choice of patent location within multinational firms', *Journal of International Economics*, Vol 88, pp. 176-185.

Keen, M. (2013), 'Targeting, Cascading, and Indirect Tax Design', *IMF Working Paper*, WP/13/57.

KPMG and GFK (2018), 'Study on tax compliance costs for SMEs – final report', Study for the European Commission (DG GROW), *forthcoming.*

McAfee, Preston R., Mialon, H.M. and Williams, M.A. (2003), 'Economic and Antitrust Barriers to Entry', http://mcafee.cc/Papers/PDF/Barriers2Entry.pdf.

OECD (2015a), 'Addressing the Tax Challenges of the Digital Economy: Action 1 – 2015 Final Report', Organisation for Economic Co-operation and Development (OECD), Paris.

OECD (2015b), 'Preventing the Artificial Avoidance of Permanent Establishment Status, Action 7 - 2015 Final Report', Organisation for Economic Co-operation and Development (OECD), Paris.

OECD (2018), Tax Challenges Arising from Digitalisation – Interim Report 2018: Inclusive Framework on BEPS, OECD Publishing, Paris.

Olbert, M., and Spengel, C (2017), 'International Taxation in the Digital Economy: Challenge Accepted?', *World Tax Journal*, Vol 9 (1), pp. 3-46.

Petruzzi, R. and S. Buriak (2017), 'Addressing the Tax Challenges of the Digitalization of the Economy: A possible Answer from a proper Application of the Transfer Pricing Rules?', conference paper presented at the third meeting on 'Digital Tax Transformation' in the multistakeholder series, 18th and 19th December 2017, Vienna University of Economics and business (WU)

PWC (2013), 'Shifting the balance from direct to indirect taxes: bringing new challenges'.

PWC (2017), 'Unequal taxation in a digital world – a challenge for the Nordic media industry'.

Ramboll Management Consulting and Corit Advisory (2015), 'Study on Structures of Aggressive Tax Planning and Indicators', *Taxation Papers*, No 61, DG Taxation and Customs Union, European Commission.

Shapiro, C. and H.R. Varian (1998), *Information Rules: A Strategic Guide to the Network Economy*, Harvard Business Review Press.

Schön, W. (2017), 'Ten Questions about Why and How to Tax the Digitalized Economy', *Max Planck Institute for Tax Law and Public Finance*, Working paper 2017 – 11.

Skeie, Ø, Johannson, Å., Menon, C. and Sorbe, S. (2017), ' Innovation, patent location and tax planning by multinationals', *OECD Economics Department Working Paper* 2017/1360.

Sorbe, S., and Johansson, A. (2016), 'International Tax Planning and Fixed Investment', *OECD Economics Department Working Paper* 2016/85.

Toffler, A. (1970), *Future Shock*, Bantam Books, New York.

Toffler, A. (1980), *The Third Wave*, Bantam Books, New York.

Tørsløv, T., Wier, L., and Zucman, G. (2017), '€600 Billion and Counting: Why High-Tax Countries Let Tax Havens Flourish', presentation slides available at http://gabriel-zucman.eu/

Vandermerwe, S. and Rada, J. (1988), 'Servitization of Business: Adding Value by Adding Services', *European Management Journal*, Vol.6, No. 4

Veugelers, R. (2017), 'Does the European Corporate R&D landscape become increasingly more concentrated in a happy few 'superstars'?, Chapter II.2 in Science, Research and Innovation Performance of the EU 2018.

UNCTAD (2017a), 'World Investment Report 2017: Investment and the Digital Economy', United Nations, New York and Geneva.

UNCTAD (2017b), 'The Top 100 Digital MNEs', Technical annex to the World Investment Report 2017, United Nations, New York and Geneva.

UNCTAD (2017c), 'Information Economy Report 2017: Digitalization, Trade and Development', United Nations, New York and Geneva.

ZEW (2016), The Impact of Tax-planning on Forward-looking Effective Tax Rates, forthcoming in Taxation Papers, DG Taxation and Customs Union, European Commission.

ZEW (2017), 'Effective tax rates in an enlarged European Union' – Final report 2016, Project for the European Commission, TAXUD/2013/CC/120.

ZEW, University of Mannheim and Pwc (2017), 'Steuerliche Standordattraktivitaet digitaler Geschaeftsmodelle'.