The digital economy is the economy that uses digital channels and communications infrastructure to provide a global platform that people and organizations use to create strategies, interact, communicate, collaborate and find information. It brings together Information and Communications Technologies (ICTs) (the broadband network, companies, government, etc.), processing services, web technologies and end users.

It has recently been defined as the branch of economics studying zero marginal cost intangible goods over the internet, meaning the study of how the use of digital media in commerce boosts profitability by reducing costs progressively through the unlimited replication of e-commerce models. The digital economy represents a new form of production and consumption and the new business models that have been developed as part of this economy—through digital applications, artificial intelligence, social networks, the Internet of Things, among others—have produced social, economic and political changes in countries around the world.

These business models pose various challenges that have been addressed by the OECD in the BEPS Plan, with Action 1 of the 15 Actions of the Plan focusing specifically on the challenges of this economy.

Action 1 defines the digital economy as “the result of a transformative process brought by information and communication technology (ICT), which has made technologies cheaper, more powerful, and widely standardized, improving business processes and bolstering innovation across all sectors of the economy.”

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This Action addresses issues such as:

- The need to extend the definition of Permanent Establishment considering the new economic flow dynamics observed in the digital economy.
- Regarding Transfer Pricing, Action 1 stresses the importance of defining the attribution of profits in the use of intangibles through the correct identification of the value contributions made by each entity in intercompany transactions in the digital economy. It also outlines the measures that are expected to be taken regarding tax collection for Business to Consumer (B2C) models going forward into 2020.

Many of the tax challenges of the digital economy relate to transfer pricing and the evolution of the functions, assets and risks involved in digital business models. The reasonableness and reliability of the results of a transfer pricing study are dependent on a solid understanding of (i) the functions performed by each of the parties involved in an intercompany transaction, (ii) the tangible and intangible assets that create value in a transaction, and (iii) the risks assumed by each party. The ‘functional analysis’ is used to identify a suitable selection of applicable transfer pricing methods and the selection of comparable transactions for analysis. A comprehensive understanding of the value creation process is therefore crucial in the new and increasingly relevant context of the digital economy.

Based on information from the OECD report: Digital Economy Outlook 2017, half the global population uses the internet, 53% use mobile devices and one third use social networks. This report makes proposals related to a number of functions aimed at strengthening digital activities to promote competition and innovation in OECD member country markets, the implementation of which would result in an increase in the participation and activity of economic agents in the digital economy. OECD member countries are now making efforts to develop regulations and tax policies to address the changes and new dynamics being seen in markets that use online digital platforms to sell goods or services, making it necessary to pointedly address the need for every economic agent to have transfer pricing planning and documentation.

Below we have provided a description of some of the challenges presented by the digital economy and the steps being taken to regulate taxation of the digital economy at the international level, as well as some examples of matters that need to be considered in terms of transfer pricing.

- Digital advertising and the Google tax

Targeted advertising is any advertising directed towards audiences with certain traits and interests identified using information obtained from specialized software.

European Union and OECD member countries are considering a proposed Interim Digital Services Tax on Revenues from Certain Digital Services, known colloquially as the Google tax. This 3% tax on sales of targeted advertising intends to ensure that technology companies that engage in these types of activities pay taxes in the countries where they obtain profits from their business model despite not being residents in that country for tax purposes.

Since 2016, some countries, such as Australia, France, Hungary, India, Israel, Italy, Luxembourg, the Netherlands and the United Kingdom have introduced measures into their tax regimes for the taxation of digital business. In January 2019, Spain approved the draft bill for the Google tax. Later, in July 2019, the tax was unanimously approved by the French Parliament. In Germany, meanwhile, while there has been no definitive federal-level declaration regarding digital economy taxes, at the regional and local level, the Munich tax office published an article stating that advertising payments on digital platforms are considered royalties subject to a 15.8% withholding tax in Germany.

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5. EY, Digital Tax Developments April 2016 (EY 2016)
Even though efforts have been made to regulate taxation of targeted advertising, there are still complexities when it comes to the transfer pricing considerations involved in the economic analyses conducted for this purpose.

While consumer data has always been considered a source of value, one of the complexities from a transfer pricing perspective is determining how much of the collected data is monetized under a digital model and what functions are involved in performing this task. If the data is collected remotely, then for transfer pricing purposes it is necessary to analyze where it is collected, where it is processed and where it is used, by means of a diagnosis of the functions, assets and risks of the value chain of companies profiting from such data.

**Blockchain**

Blockchain is a series of blocks or groups of transactions that link together and are distributed among users and allow digital information to be recorded, but not edited.

The use of blockchain technology presupposes an environment with free access to the flow of transactions between economic agents who may or may not belong to a single business group. The ease with which information can be generated and shared using blockchain increases the value of the concepts of automation and real time to an entirely new level for users. Applications for blockchain are being found in the financial, government, education and consumer goods sectors, reducing market friction and transaction costs, facilitating transparency and the recognition of these transactions.

The OECD Digital Economy Outlook 2017\(^6\) mentions some of the challenges involved in using blockchain technology, underscoring the lack of regulation in a trust-based environment. As an example, it cites the economic transactions and operations performed using Bitcoin, a virtual currency based on blockchain that operates independently of any central bank using peer-to-peer connections in an open, shared and trusted public ledger.

The most significant complexity regarding transfer pricing under business models that use blockchain is the difficulty of (i) defining the functions performed by each entity involved in the transaction, (ii) attributing the profits generated by its use to the entity that profited from them, and (iii) determining the risks and liabilities assumed as a result of the use of this technology.

The OECD believes that the success of blockchain (and therefore the applicable tax regulations) hinges on grappling with technical hurdles and policy challenges such as how to enforce law in the absence of any intermediary or how and to whom to impute legal liability for torts caused by blockchain-based systems.

**Mergers and acquisitions in telecommunications companies**

One example of the complexity of performing transfer pricing studies in the digital economy is the analysis of mergers and acquisitions performed in telecommunications companies to increase their access to broadband internet. These transactions lead to corporate restructurings and require a reassessment of the intercompany transactions to identify the underlying generators of value in each entity involved in the restructuring in order to allocate such value correctly by performing a multinational functional analysis that considers even the activities related to the development, improvement, maintenance, protection and exploitation of the intangibles involved or allocated to one or more entities of the group of related companies.

**Digital B2C business models**

Another example of transfer pricing complexity is in an online digital B2C business model offering targeted advertising services that does not rely on the physical presence of the supplier to carry out transactions. This model also includes the use of

a proprietary software that creates a digital transaction platform based on the advertising targeted to certain consumers. The platform runs using an information technology infrastructure with an operating center located near the head office and individual parties such as data centers in the markets where the customers are located.

The main activity in this business model is the maintenance and development of the IT infrastructure, as well as the online services the business provides. Revenue is generated through paid advertising or fees for the use of online services. The costs associated with the model are expenses for maintaining the platform, as well as compensation for the personnel charged with developing the software, marketing and other functions.

The content management and marketing activities performed, as well as customer support, are complementary activities carried out at locations near the consumers but are routine activities without any high-value components. The actual value of the data is created once the information has been analyzed and processed.

So, in this example, a foreign subsidiary of a B2C business responsible for providing customer support or collecting consumer data in a given market could not justify an attribution of profits beyond a cost-plus based compensation, even though these activities serve to drive specific actions on the digital platform and increase transaction traffic and thereby generate more revenue and value for the business model.

Conclusion

Many analysts believe that we are just starting the digital revolution and that the most significant transformations are yet to occur. For example, the digital economy is expected to revolutionize entire sectors, such as the transformation of the transportation industry through the widespread adoption of autonomous vehicles. It is also predicted that other promising technologies, such as blockchain, will become much more relevant in the next few years.

The OECD sees the trend of exploiting the benefits of the digital economy that is currently being followed by the dynamic world of business as an opportunity to create a robust offering of goods and services available through the use of digital media and technology, and it is encouraging member countries to invest in access to improved communications networks that facilitate such media and technology, driving consumption and allowing authorities to tax the profits obtained from the digital economy objectively. Based on this perspective, it can be inferred that the concept of Permanent Establishment will come to have specific connotations for the digital economy and the taxation thereof.