

Tax Aspects of the Metaverse: Is a Pillar Three Coming?

The metaverse and Web 3.0 are (again) going to change the digital economy and its business models as we know them and give rise to key issues from a tax perspective. It is thus expected that the current international tax principles, the tax challenges raised by OECD BEPS Action 1 for the digital economy and, more recently, Pillar One new taxing rights (which have yet to be implemented) could soon become outdated. This article illustrates, with the support of some examples, what the future challenges of international taxation might be – considering, among other things, the potential coexistence of the “old” principles under the OECD Model Tax Convention and Pillar One – and how the metaverse might have an impact on business models and the real world (including by considering the role and interactions of cryptocurrencies, NFTs and blockchain technology, which are key to the metaverse’s operations) with a focus on how taxing rights among the different countries involved in the metaverse are to be attributed.

1. The Metaverse: Main Tax Implications

The metaverse is strongly interrelated with cryptocurrencies and Non-Fungible Tokens (NFTs) as the former are commonly used to conclude transactions that usually have NFTs as underlying assets. Over the past few years, much attention has been given only to the possible tax issues related to cryptocurrencies and NFTs. However, with the rise of the metaverse and its increased use and development – not only for the digital sector but for at least all consumer business (e.g. it is already used by the luxury industry) – several tax issues will (sooner or later) need to be addressed. In this respect, the metaverse could have a strong impact on current principles of international taxation, particularly when it comes to identifying income sources, which should take into account, among other things, the revenue sourcing rules – which determine the revenue that will need to be treated as deriving from a given market jurisdiction – introduced by Pillar One¹ (if it enters into force).

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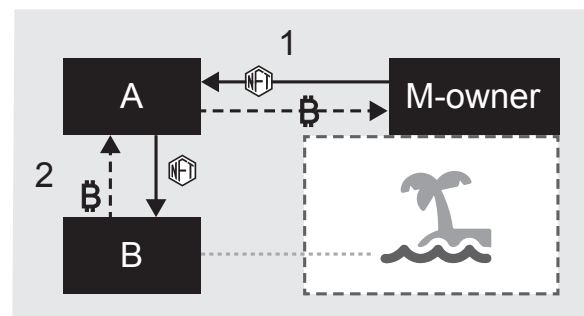
1. OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project (OECD 2020) [hereinafter Pillar One]. For

Furthermore, potential interaction between the metaverse and the real world (e.g. a company that promotes a product in the metaverse that is then sold in the real world, or vice versa) could raise further implications.

As the metaverse is a new topic, the several questions that arise today have no clear answer. Therefore, this article draws attention to certain tax implications that might arise from the metaverse, cryptocurrencies and NFTs in relation to the current principles of international taxation, in an effort to raise further awareness of the issue in order to suggest a common solution for avoiding any unilateral measure that would trigger, again, double taxation.

Given the above, the following example raises some issues that, in our opinion, remain unresolved and that without a global consensus, will lead to double taxation or no taxation.

Figure 1



M-owner is a legal entity tax resident in State M that develops, exploits, and manages its own metaverse. Moreover, it owns several intellectual properties (IPs) (trademarks, brands, know-how and software) and performs all the DEMPE functions. In this example, it is assumed that M-owner sells a virtual land (NFT) to A in exchange for cryptocurrencies. M-owner, in order to develop and manage its metaverse and create the land has borne significant expenses (mainly paid with the local currency (i.e. no cryptocurrencies)) which has been deducted under the corporate income tax of State M.

A is a legal entity tax resident in State A and owns only know-how. It is assumed that: (i) A purchases the virtual land (NFT) in the metaverse in exchange for cryptocurrencies and then creates an island on the land; and

example, para. 4.2.2 of Pillar One states that with reference to Online Intermediation Platform Services the applicable rule depends on the nature of the goods/services being intermediated, i.e. revenue from online advertising services, revenue from the sale or other alienation of user data, revenue from online intermediation platform services, or revenue from digital content services.

(ii) A sells the land to B in exchange for cryptocurrencies (making a capital gain as the value increased). A has borne expenses paid with the local currency for developing its know-how and building the virtual island which has been deducted under the corporate income tax of State A

B is a legal entity tax resident in State B that purchases the virtual land (NFT) from A in exchange for cryptocurrencies. It is assumed that B can: (i) keep the land without making any business exploitation (only personal use); (ii) rent or make business profits off the land through business activity or events (such as selling digital or real goods or sponsorship/advertising agreements); or (iii) re-sell the land.

Based on this example, the main question that arise is: will the interactions between the metaverse and the real world lead to new tax challenges and the need to develop new tax principles? This is an especially critical question because current international tax principles are going to be amended to take into consideration the digitalization of the economy, and Pillar One is the last milestone in that regard.

Moreover, with reference to taxation of the metaverse, questions arise as to how to deal with: (i) territoriality, i.e. where and who is subject to tax: e.g. is the source state that in which the metaverse owner is tax resident or that in which the user is located? (ii) qualification/characterization of the income: e.g. is income to be characterized as business income, immovable property, royalties, capital gains, or other income? and (iii) interaction with the real world, i.e. how to deal with expenses borne in local currency and related to the profits generated in the metaverse and therefore how to determine the income (gross or net?) attributed to the metaverse business?

Finally, the exploitation of the metaverse by multinational enterprises (MNEs) could have a significant impact on the business models and value chains leading to new and peculiar analysis on the attribution of the profits on the basis of different roles in the value chain (e.g. meta store)² and activities performed (i.e. how to remunerate a retailer in the metaverse, is it a sort of e-commerce activity?).

2. The Metaverse: Main Features

2.1. Introduction

A greater portion of our everyday life revolves around digital activities, especially for younger generations. Today, around a third of our lives (i.e. eight hours/day) is spent watching TV, playing videogames, browsing the internet, or using social media. As people around the world spend more time in these digital world experiences, they also spend more money on these platforms which undoubtedly have an impact on the international tax system.

2. In May 2022, Meta announced the opening of its first retail store, where it introduces people to virtual reality worlds with a try-before-you-buy approach.

Recently, nearly every day a company or a person (mainly celebrities or multinationals) launches a “presence” in a metaverse for either personal or business purposes. For this reason, the metaverse will likely infiltrate every sector in the coming years, with a market opportunity estimated at over USD 1 trillion in yearly revenues.³

With the advent of internet technology, people are now more connected than ever: the past three decades have seen a constant evolution and change of how we all interact, and how business is carried out, leading to the “digitalization of the economy”. Consequently, MNEs have evolved how they carry on their businesses and their value chains in the new digitalized world.

The “eras” of online-based communities and their evolution and expansion have been based on increasing interaction between users. This can generally be summarized as: Web 1.0 (e.g. Netscape,⁴ which connected us online) consisting mainly in static websites without interaction possibilities between users or with other sites; Web 2.0 (e.g. Facebook, which connected us in online communities), where the key aspect is user interaction (like social networks); and; Web 3.0 (e.g. Decentraland,⁵ which connected us in a community-owned virtual world) with the birth of the metaverse, an emphasis on the decentralization of applications and an extensive use of blockchain technologies, machine learning and artificial intelligence (AI) to help empower more intelligent and adaptive applications.

In more detail, Web 2.0 changed how, where, when, and why we use the internet, thereby changing products and services. Web 3.0 has the potential to do the same, as the metaverse is a virtual world with a developing mix of digital goods, services, and assets that can generate real-world value that is part of a larger interconnected crypto cloud economy with decentralized protocols, which interoperate and provide the technical infrastructure to support the metaverse virtual economies.⁶

The potential of the Web 3.0 revolution has started to attract Web 2.0 companies such as Facebook, which recently shifted to a metaverse company by changing its name to “Meta”. This is only the beginning as today we are now at an inflection point; other Web 2.0 companies will likely need to start exploring the metaverse to stay competitive and make new investments that will probably require them to change their business models, which will impact also on their value chain.

Currently, new businesses are blooming in the metaverse. Some of today’s most popular ones in the virtual world right now: art galleries that allow owners to showcase

3. Grayscale Research, *The Metaverse Web 3.0 Virtual Cloud Economies* (Nov. 2021); J.P. Morgan, *Opportunities in the metaverse* (2022).
4. Netscape navigator was one of the most popular web browsers in the 1990s.
5. Decentraland is a software that encourages a global network of users to operate a shared virtual world.
6. Grayscale Research, *The Metaverse Web 3.0 Virtual Cloud Economies* (Nov. 2021).

and sell their digital NFT art at auction;⁷ virtual stores where fashion brands hold fashion shows and sell their products;⁸ live sport events;⁹ and music venues where DJs and artists play music and hold concerts.¹⁰ And last but not least, also virtual real estate is becoming a growing market.¹¹ This will enable retailers, for example, to avoid having stores in every city and instead build a store in the metaverse where they can reach customers worldwide without a physical presence or with only a very limited one (e.g. only marketing or other preparatory/ancillary activities related to the retailer's business).

From a tax perspective, traditional international taxation standards (i.e. the concept of residence, the identification of the sourcing state, the principles applied to passive income such as dividends, interests and royalties and withholding taxes applicable, the concept of permanent establishment (PE) based on physical presence, and the allocation of income within MNEs according to the arm's length principle (ALP)) have been heavily impacted by the increasing digitalization of the economy and the evolution of the internet. Traditional international tax standards require a physical link with the related jurisdictions to grant the right to tax: this is evident in relation to the taxation of business profits linked to the existence of a PE and by the requirement to determine the arm's length remuneration according to a proper function, asset and risk analysis for transfer pricing purposes. The OECD has been making gradual progress over the last 20 years in adapting its principles (or the application of its principles) to the tax challenges of the digital economy, ever since the publication of its Report on Electronic Commerce (1998) by the OECD's Committee on Fiscal Affairs

together with input from the European Commission and the World Customs Organization.^{12,13}

The OECD also stated in Action 1 of the BEPS Project that "[b]ecause the digital economy is increasingly becoming the economy itself, it would be difficult, if not impossible, to ring-fence the digital economy from the rest of the economy for tax purposes"¹⁴ and confirmed the need to pursue a solution for digital taxation that is based as much as possible on a holistic approach. That said, it did not specifically identify the potential solutions to adapt international tax standards to digital businesses – but rather provided only some alternatives. Afterwards, in light of the specific features of a digital business (i.e. extremely dematerialized and directly linked to end customers and market jurisdictions), the OECD decided to depart from international tax standards and replace them with a proposed dedicated provision that attributes a new taxing right to market jurisdictions (i.e. Pillar One) applicable to mainly all the business (even if not digitalized) subject to some quantitative thresholds. Pillar One (its final version is still under discussion at international and OECD level) introduces a new nexus to tax a portion of residual profits (departing from the PE requirement and, to a large extent, from the ALP) where the main driver is the market in which end customers are located.

7. For example, "Everydays: the First 5000 Days" is a digital work of art created by Mike Winkelmann (known professionally as Beeple). Its associated NFT was sold for USD 69.3 million at Christie's in 2021, making it first on the list of most expensive NFT; see <https://www.theguardian.com/artanddesign/2021/oct/04/nfts-drive-sales-of-contemporary-art-to-record-27bn> (accessed 18 July 2022).
8. For example: Zara released a "Metacollection" that can be worn in the metaverse and in real world (see <https://www.vogue.com/article/zara-metaverse-collection> (accessed 18 July 2022)); Nike created "Nike-land" (a space that allows users to try on virtual products in addition to play some games), which is the sporting goods brand's micro metaverse built in Roblox. Since its launch in November, it has attracted 6.7 million people from 224 countries (see <https://www.thedrum.com/news/2022/03/22/nearly-7-million-people-have-visited-nike-s-metaverse-store> (accessed 18 July 2022)).
9. The Italian football league Serie A, broadcast the first live football match in the metaverse: AC Milan versus Fiorentina was shown live on the Nemesis platform in May 2022 (see <https://www.ilsole24ore.com/art/con-milan-fiorentina-serie-debutta-metaverso-AE0r0TVB> (accessed 18 July 2022)).
10. For example, the pop star Ariana Grande has performed a series of virtual concerts inside the hit video game Fortnite (see <https://www.bbc.com/news/av/technology-58146042> (accessed 18 July 2022)).
11. Sales of real estate in the metaverse topped USD 500 million in 2021 and could double in 2022 (see <https://www.cnbc.com/2022/02/01/metaverse-real-estate-sales-top-500-million-metametric-solutions-says.html> (accessed 18 July 2022)).

12. In particular, (reporting only the most relevant final reports) in October 2015: OECD/G20, *Addressing the Tax Challenges of the Digital Economy: Action 1 – 2015 Final Report*, Primary Sources IBFD; in March 2018: OECD, *Tax Challenges Arising from Digitalisation – Interim Report 2018: Inclusive Framework on BEPS*, Primary Sources IBFD; in January 2019: OECD, *Policy Note*, available at <https://www.oecd.org/tax/beps/policy-note-beps-inclusive-framework-addressing-tax-challenges-digitalisation.pdf> (accessed 18 July 2022); in May 2019: OECD, *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy*, available at <http://www.oecd.org/tax/beps/programme-of-work-to-develop-a-consensus-solution-to-the-tax-challenges-arising-from-the-digitalisation-of-the-economy.htm> (accessed 18 July 2022); in January 2020: OECD, *Statement by the OECD/G20 Inclusive Framework on BEPS on the Two-Pillar Approach to Address the Tax Challenges Arising from the Digitalisation of the Economy*, available at <http://www.oecd.org/tax/beps/statement-by-the-oecd-g20-inclusive-framework-on-beps-january-2020.pdf> (accessed 18 July 2022); OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project (OECD 2020); OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project (OECD 2020).
13. At the same time, at both EU and non-EU level, the lack of a global consensus has led an increasing number of countries to implement unilateral and uncoordinated domestic measures (web taxes) or to take action geared towards their implementation in the near future. These measures are frequently inspired by the work carried out by the European Union with the proposed Directive on Digital Services Tax (i.e. the Proposal for a Council directive on the common system of a digital services tax on revenues resulting from the provision of certain digital services [SWD(2018) 81]–[SWD(2018) 82], Brussels, 21.3.2018, COM(2018) 148 final). Furthermore, the European Union has suggested that without multilateral consensus, the proposed digital services tax – or other unilateral measures – will remain the preferable option for each country. However, unilateral measures will certainly lead to several interpretive issues and double taxation.
14. See OECD, *Addressing the Tax Challenges of the Digital Economy*, OECD/G20 Base Erosion and Profit Shifting Project (OECD 2014); OECD/G20, *Addressing the Tax Challenges of the Digital Economy: Action 1 – 2015 Final Report*, OECD/G20 Base Erosion and Profit Shifting Project (OECD 2015), Primary Sources IBFD; OECD, *Tax Challenges Arising from Digitalisation – Interim Report 2018: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project (OECD 2018), Primary Sources IBFD.

However, these principles (i) seem difficult to be directly applicable to the metaverse where identifying the relevant countries involved might well not be simple; (ii) in any case do not take into account the interaction between two different “worlds”.

Based on the above framework, will all the work done by the OECD soon be outdated? Will the metaverse have a revolutionary impact on the economy much like digitalization? Will it be a sort of digitalization 2.0 where new principles could be applied or will it need only a slight amendment? As an alternative, there is also a real pragmatic approach where (i) cryptocurrency is just treated as a foreign currency, (ii) new sourcing rules for determining the relevant market are added to Pillar One and (iii) metaverse is mainly treated as a sort of e-commerce business. Here the issue is that e-commerce has in any case either a link with physical business (in several MNEs is an alternative sale channel to retail) or the final delivery of goods/services in the real world. With the metaverse, it can happen that everything will just stay in the metaverse without any material impact on the real world (e.g. the purchase of branded shoes and bags just for the avatar in the metaverse).

2.2. Main principles

First, it should be pointed out that in principle there is not only one metaverse but many, which are taking shape to enable people to deepen and extend social interactions digitally. With this in mind, the metaverse can be defined as a seamless convergence of our physical and digital lives, creating a unified, virtual community where we can work, play, relax, transact and socialize. The metaverse is still early in its evolution, and there is no singular, all-encompassing definition to which people can turn. Themes of what the metaverse is and could be, however are emerging and could unlock immense economic opportunities.

The backbone of the metaverse can be identified in the blockchain¹⁵ technology, which also enables cryptocurrencies¹⁶ and NFTs.¹⁷ The latter can be used in the

15. The blockchain is a decentralized database structured in blocks, each one containing a certain amount of information and distributed through a chain (i.e. a ledger) over a network. Thus, it is then a form of network-distributed ledger whose users play an active role in keeping it constantly updated. The blockchain is also a digital way to store any kind of data that can be traced and cannot be lost.
16. Cryptocurrencies are digital or virtual currencies that are secured by cryptography and by a decentralized system, which makes them nearly impossible to counterfeit or double-spend. They can be considered the original and first-proven application of blockchain. Currently they are used for transactions, as means of payment in either real life, or in the metaverse. The total cryptocurrency market cap is USD 1.76 trillion, or equivalent to the 8th largest economy globally and the average daily cryptocurrency trade volume has risen dramatically to USD 93 billion per day 2020 saw 2,329 ICOs launch.
17. NFTs are units of data that can be created and stored on a blockchain. Their purpose is to certify the ownership of a digital asset and provide a potential buyer with the assurance that a certain piece of art, photo or video is unique. NFTs represent an ownership right on the underlying physical asset (or directly on the digital asset if they are crypt-natives), but not copyright or property rights (although they can be transferred when agreed) and they circulate with crypto-settled transactions. The main feature is that unlike cryptocurrencies whose units are meant to be interchangeable, NFTs are blockchain-based digital items whose units are designed to be unique. Data can be associated with files con-

metaverse or even across different metaverse platforms for transactions regulated by cryptocurrencies or real currencies as it is the technology on which cryptocurrencies, NFTs and the metaverse can be built and developed.

Subject to specific limitations by jurisdiction, NFTs have the potential to facilitate new revenue streams by establishing new forms of digital property, acting as new channels for businesses and digital creators to reach customers and/or enable the monetization of physical assets. NFT issuance is growing rapidly globally and at the same time the legal and regulatory framework of NFTs continues to evolve.

Through the use of the metaverse, both platform operators and users (who can potentially be individuals and companies) can make profits that impact the metaverse itself but also the real world. That said, it is noted that, to date, the qualification from a legal point of view and based on current principles of the metaverse, cryptocurrencies and NFTs is very uncertain.

2.3. Cryptocurrencies and NFTs tax issue

As of today, it remains unclear and there is not a global comprehensive solution on the taxation of cryptocurrencies and NFTs since their tax treatment requires several considerations regarding existing tax rules, their characterization (e.g. financial instruments, intangible assets, foreign currency) and their use. This gives rise to considerable complexity and uncertainty. In this respect, the OECD is developing proposals around effective reporting and information exchange for cryptocurrencies, potentially making exchange platforms responsible for compliance in addition to taxpayers.^{18,19}

The OECD/G20 Base Erosion and Profit Shifting (BEPS) Project, in the 2015 BEPS Action 1 Report (OECD 2015)²⁰ identified cryptocurrencies among the developments contributing to the digitalization of the global economy and encouraged policymakers to monitor these closely to address the additional tax policy challenges that they may generate. In March 2018, the Inclusive Framework on BEPS issued Tax Challenges Arising from Digitalisation – Interim Report 2018 (the Interim Report) (OECD 2018), remarking the importance of the tax evasion risks asso-

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taining media such as image, videos, and audio or even physical objects and the digital certificate is proof of the scarcity of the given asset and its non-fungibility.

18. In this respect, the OECD has recently asked input on new tax transparency framework for cryptoassets and amendments to the Common Reporting Standard (CRS) (<https://www.oecd.org/ctp/exchange-of-tax-information/oecd-seeks-input-on-new-tax-transparency-framework-for-crypto-assets-and-amendments-to-the-common-reporting-standard.htm> (accessed 18 July 2022)). The European Commission has released the proposed eighth amendment to the Directive on Administrative Cooperation (DAC 8) which will broaden the scope of exchange of information between the EU Member States.
19. OECD, *Taxing Virtual Currencies: An Overview Of Tax Treatments And Emerging Tax Policy Issues* (OECD 2020), available at www.oecd.org/tax/tax-policy/taxing-virtual-currencies-an-overview-of-tax-treatments-and-emerging-tax-policy-issues.htm (accessed 18 July 2022).
20. OECD/G20, *Addressing the Tax Challenges of the Digital Economy: Action 1 – 2015 Final Report*, OECD/G20, Base Erosion and Profit Shifting Project (OECD 2015), Primary Sources IBFD.

ciated with virtual currencies and indicated that further work would be needed in this area.²¹

Within this framework, guidance on their valuation for tax purposes appears to be limited and where such guidance exists, it acknowledges several difficulties. Indeed, some countries have started taking unilateral positions and/or guidance on interpretation and qualification of cryptocurrencies which may result in different interpretations of the tax treatment. Given the lack of a common definition, regulators and international standard-setting bodies tend to use their own terminology and definitions.²²

The characterization of cryptocurrencies is key for understanding how they fit within existing tax systems. In the majority of cases, they are considered as a form of asset for tax purposes. Within this definition, countries are adopting different approaches on how to characterize virtual currencies: while the majority of countries analysed refer to them as intangible assets, some consider them as commodities or financial instruments. A minority of countries take a different approach and consider virtual currencies as foreign fiat²³ money (e.g. Italy), or as “digital representation of value”.

From this analysis, it appears clear that the taxation of virtual currencies requires policymakers to balance a number of competing goals and perspectives.

Also, with reference to when the first taxable event occurs, countries are adopting different approaches. Some countries consider the first taxable event to be the receipt of new cryptocurrencies from mining activities²⁴, others the first event on disposal²⁵ (i.e. when the miner first exchanges, or otherwise disposes, of the virtual currency) and other conceive different approaches for businesses/regular traders and individual/occasional traders.²⁶

Cryptocurrencies are becoming more mainstream and are under the spotlight of regulators. In this respect, the OECD is developing proposals around effective reporting and information exchange for cryptocurrencies, poten-

tially making exchange platforms responsible for compliance in addition to taxpayers. Tax, and tax compliance, is therefore likely to become more complex for cryptocurrencies operators.

With reference to NFTs, most jurisdictions do not yet have legislation or regulations specifically applicable to NFTs, but a host of existing regulations may still apply. Indeed, NFTs are even more complex to qualify from tax purposes than cryptocurrencies. For example if one NFT is sold, several questions will arise in order to understand its tax treatment such as: what is sold? the underlying asset (and if so, what may be the implications if the underlying asset is an intangible asset, a financial instrument, a physical asset, or something else?), is it characterized as specific limited rights in the underlying asset, or are such rights so limited that the asset being sold amounts to no more than the NFT itself? Capital gains taxes, income taxes, VAT/sales taxes and/or transfer taxes may be relevant depending on the answers.

Further elements that may be considered could relate to which jurisdiction(s) should have taxing rights, i.e. are NFTs located where the beneficial owner of the NFT is resident (as is generally the approach taken with respect to cryptocurrencies) or might they be located in the jurisdiction of the underlying asset (and in the case the underlying asset is digital)?

Based on the above, currently there is not a clear and coherent picture on cryptocurrencies and NFTs tax treatment. The main risk (that we have already seen during the last few years) derives from the implementation of unilateral guidance/laws by countries. This is a huge risk already borne with reference to the implementation of the unilateral digital services tax as such unilateral behaviour has brought uncertainty, double taxation and compatibility issues with double tax treaties. In this respect, countries should be cooperative in a more efficient manner in order to find a global solution.

3. Considerations on the Main Tax Implications of the Metaverse

The OECD has made considerable efforts – through Pillar One – to adapt the international income tax system to new business models by changing to the profit allocation and nexus rules applicable to business profits and introducing a new taxing right for market jurisdictions over a share of residual profit calculated at an MNE group level.

Pillar One aims to expand the taxing rights of market jurisdictions (which, for some business models, are the jurisdictions where the users are located) where there is an active and sustained participation of a business in the economy of that jurisdiction through activities in, or remotely directed at, that jurisdiction.

It is uncertain whether Pillar One will be able to tackle all the tax implications that could arise if and when an MNE manages its own metaverse or potential interactions with other metaverses and business in the real world. This will

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21. Para. 505 of the Interim Report provides that “Analysis of the risks of tax evasion posed by cryptocurrency and blockchain technology more generally, and the possible solutions, such as legislative measures which require digital asset exchange platforms or other third parties to report, and/or which allow tax administrations to request information on transactions regarding digital assets such as cryptocurrency as well as targeted exchange of information”.
 22. Authorities such as the International Monetary Fund (IMF), the European Banking Authority (EBA) and the European Securities and Markets Authority (ESMA) generally consider every asset based on DLT to be a cryptoasset. In contrast, the European Central Bank (ECB) only considers assets recorded in digital form that are not and do not represent either a financial claim, a financial liability, or a proprietary right as a cryptoasset. See (European Banking Authority, 2019[5]); (European Securities and Markets Authority, 2019[6]) (ECB Crypto-Assets Task Force, 2019[7]) (International Monetary Fund, 2020[8]).
 23. Fiat money is a government-issued currency that is not backed by a physical commodity, such as gold or silver, but rather by the government that issued it (e.g., Euro or US Dollar).
 24. Andorra, Argentina, Austria, Cote d’Ivoire, Colombia, Croatia, Estonia, Finland, Japan, Luxembourg, New Zealand, Norway, Slovenia, South Africa, the United Kingdom and the United States.
 25. Croatia, the Czech Republic, Denmark, Estonia, France, Latvia, Lithuania, Poland, Singapore (business mining only) and the Slovak Republic.
 26. Australia, Canada, Germany, Hong Kong (China), Luxembourg, the Netherlands, Singapore, Sweden and Switzerland.

increase the complexity and make it even more difficult to identify the source state/market jurisdiction.²⁷

Difficulties derive also from the fact that no proper and coordinated characterization of NFTs currently exists, and it is mainly NFTs that allow making operations on the metaverse and on the “assets” that are exchanged, which can be regulated by cryptocurrencies but also by traditional currencies.

Considering that the OECD Model²⁸ is organized under a schedular system, which provides different provisions for different items of income with article 3(2) applicable to items not defined by the convention and articles 7 and 21 applicable as general rules if the specific distributive rules do not apply, the characterization of items of income generated by the metaverse become key in order to avoid any double taxation. Indeed, in light of the difficulties to find a mainstream characterization of income from NFT, there is currently a concrete risk of conflict of interpretation of the double tax treaties.

A further complexity derives from the interaction between metaverse and real world (e.g. retailer that opens a shopping store in a metaverse that allows users to purchase goods that will be delivered in the real world) in terms of (i) how to allocate the income generated and (i) how to treat all the expenses borne.

In this respect, several options exist to identify the source state, e.g. (i) where payer/purchaser/user is located; (ii) where the seller/vendor/NFT creator is located; (iii) where the metaverse owner is located; or (iv) where the technical infrastructures are located. On the other hand, from a quantitative standpoint, a homogeneous solution taking into account carefully also the loss carried forward deriving from the significant investments made for developing the metaverse and other related features should have a key role in the attribution of taxing rights and in determining whether to tax on gross or net income.

3.1. Considerations on the proposed simplified example

As already illustrated above, with reference to taxation of the metaverse, questions arise as to how to deal with: (i) territoriality, i.e. where, and who is subject to tax: e.g. is the source state that in which the metaverse owner is tax resident or that in which the user is located? (ii) qualification/characterization of the income: e.g. is income to be characterized as business income, immovable property, royalties, capital gains, or other income? and (c) interaction with the real world, i.e. how to deal with expenses borne in traditional currency and related to the profits generated in the metaverse and therefore how to deter-

mine the income (gross or net?) attributed to the metaverse business?

The following considerations on tax implications can be made regarding the simplified example above, in which M-owner sells land (NFT) to A, which creates an island on the land and then sells the island to B, which can in turn (i) keep the land without any business exploitation (only personal use); (ii) rent or make business profits with the land through business or events (e.g. selling digital or real goods or sponsorship/advertising agreements); or (iii) re-sell the land.

The following assumptions are made for the purposes of this simplified example: (i) the current OECD Model Tax Convention applies, and crypto transactions are taxed in the state of residence of the legal entity that alienates them (assuming that all crypto transactions are taxed in the same way), (ii) NFTs can be qualified as intangibles and/or immovable property, and (i) according to all the countries involved local legislation, they are entitled to tax the income generated by transactions involving their tax residents.

In this respect, when M-owner sells the NFT, receives the crypto payment according to OECD Model, the attribution of taxing rights depends firstly on the characterization of the income for tax purposes and then if any country claims the existence of a PE to which the income generated by the sale of the NFT is attributed. In this respect:

- (1) If the income is characterized as (i) income from immovable property (assuming that the NFT can be qualified as an immovable property under article 6(2) of the OECD Model on the basis of the law of the source state), according to article 6(1) of the OECD Model the income may be subject to tax in the state where the asset/good underlying the NFT is located;²⁹ or (ii) capital gain, according to article 13(1) of the OECD Model³⁰ the gain may be subject to tax in the state where the asset/good underlying the NFT is located or if the NFT is not qualified as an immovable property, in the state of which the alienator is resident according to article 13(5) of the OECD Model.³¹ In such a case, a further issue is how to determine the situs state (e.g. on the basis of the residence of the metaverse owner?).
- (2) If the income is characterized as royalty (if the NFT falls within the definition provided by article 12(2) of the OECD Model), according to article 12(1) of

27. Paragraph 1.2, footnote 6 of Pillar One provides that “For the purpose of this paper, user/market jurisdictions (henceforth “market jurisdictions”) are jurisdictions where an MNE group sells its products or services or, in the case of highly digitalised businesses, provides services to users or solicits and collects data or content contributions from them”.

28. *OECD Model Tax Convention on Income and on Capital: Condensed Version 2017* (OECD 2017), Treaties & Models IBFD [hereinafter OECD Model].

29. Art. 6(1) OECD Model: “Income derived by a resident of a Contracting State from immovable property (including income from agriculture or forestry) situated in the other Contracting State may be taxed in that other State”.

30. Art. 13(1) OECD Model: “Gains derived by a resident of a Contracting State from the alienation of immovable property referred to in Article 6 and situated in the other Contracting State may be taxed in that other State”.

31. Art. 13(5) OECD Model: “Gains from the alienation of any property, other than that referred to in paragraphs 1, 2, 3 and 4, shall be taxable only in the Contracting State of which the alienator is a resident”.

the OECD Model,³² it shall be subject to tax only in the state of which the beneficial owner is located (i.e. assuming M-owner as beneficial owner, State M), unless the specific treaty provides for a sharing of the taxing rights (as requested by several double tax treaties in force).

- (3) If the income does not fall within any specific category of income, it could be characterized as business profits and therefore according to article 7(1) of the OECD Model,³³ the profits shall be subject to tax only in the state where the business is carried out (i.e. in the state where M-owner is resident and carries out its business) unless a PE is deemed to exist in another state.
- (4) If a PE of M-owner is deemed to exist in another state where it carries out the business, the profits may be attributed to the other state according to article 7(1) of the OECD Model. In this respect, further consideration could be made on how to (i) apply the definition of PE in the context of metaverse (in our experience in the digital business a huge emphasis is made to the presence of infrastructures and technologies) and (ii) attribute the profits to the PE and which principles might be applied (i.e. OECD principles on attribution of profits to a PE or other principles applied by the local tax authorities or principles contained in the double tax treaty in force between the two states?).

With regard to A, which pays in crypto, receives the NFT and then re-sells NFT to B receiving crypto, the same considerations made above can be applied about how income can be characterized according to the OECD Model. However, in this case, it should be carefully evaluated which is the situs state in case the income qualifies as income from immovable property and whether the income is considered a capital gain. This potential different qualification of the location of the NFT and the income generated could lead to double taxation of the income generated by the resale of the NFT.

With reference to B, which pays in crypto and receives NFT from A, if B re-sells the NFT, similar considerations made as in the case of A can be made about how income can be qualified according to the OECD Model and the potential double taxation that may arise.

However, if B rents (or makes business profits with) the LAND in the metaverse the following considerations can be made:

- (1) If the income is characterized as income from immovable property, according to article 6(1) of the OECD Model the income may be subject to tax in

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32. Art. 12(1) OECD Model: "Royalties arising in a Contracting State and beneficially owned by a resident of the other Contracting State shall be taxable only in that other State".

33. Art. 7(1) OECD Model: "Profits of an enterprise of a Contracting State shall be taxable only in that State unless the enterprise carries on business in the other Contracting State through a permanent establishment situated therein. If the enterprise carries on business as aforesaid, the profits that are attributable to the permanent establishment in accordance with the provisions of paragraph 2 may be taxed in that other State".

the state where the asset/good underlying the NFT is deemed to be located (i.e. in state M (the state of the metaverse owner) or State B).

- (2) If the income is characterized as royalty (if the NFT renting falls within the definition provided by article 12(2) of the OECD Model), according to article 12(1) of the OECD Model, it shall be subject to tax in the state where the beneficial owner is located (i.e. assuming B as beneficial owner, in State B), unless the specific treaty provides for a sharing of the taxing rights (as requested by several double tax treaties).
- (3) If the income does not fall within any specific category of income, it could be characterized as business profits and therefore according to article 7(1) of the OECD Model, the profits shall be subject to tax only in the state where the business is carried out (i.e. in the state where B is resident or in state M (the state of the metaverse owner, whether local law of state M requires that business profits realized by users in a metaverse owned by a company resident there are considered to be generated in that state)) unless the specific double tax treaty provides for a sharing of the taxing rights (as several double tax treaties in force do).

The results of the above example generate several potential double taxation issues, e.g. if A sells the NFT to B and country A qualifies it as business income (based on article 7 of the OECD Model) but country B classifies it as a royalty and applies a withholding tax (based on art. 12 of the OECD Model) or if B realizes profits from the LAND, they could be subject to tax in state B (if qualified as business income) or in state M (based on local law or if considered derived from a PE).

Furthermore, considerations have to be made on the treatment of expenses incurred in traditional currency and related to the profits generated in the metaverse. More specifically, when M-owner sells the NFT to A, if the income is characterized as business profits, should the gross income or the net income be taxed?

The example becomes even more complicated if OECD Pillar One rules are applied. In more detail, the example should be considered in relation to the allocation of the residual profits through Amount A to market jurisdictions, where the (i) metaverse users or (ii) infrastructures are located. This could even entail the introduction of new revenue sourcing rules. Moreover, if no coherent approach exists as to how to account cryptocurrencies for accounting purposes³⁴ and they are never converted into traditional currency, how will it be possible to assess global turnover threshold and profitability? The result could be

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34. In particular, the IFRS Interpretations Committee concluded that cryptocurrencies meet the definition of intangible assets and are therefore in the scope of IAS 38, or IAS 2 Inventories if held for sale in the ordinary course of business (see <https://www.ifrs.org/projects/completed-projects/2019/holdings-of-cryptocurrencies/#published-documents> (accessed 18 July 2022)). However, there may be no consistency of approach in all other states.

that MNEs operating only in the metaverse never convert them and thus have no taxable income in the real world.

Further considerations arise if we assume that the metaverse is a foreign state with its own rules and relies on the principle that “what is in the metaverse, stays in the metaverse” i.e. no taxation before conversion into real world and traditional currency. In this case, one of two scenarios may arise: (i) taxation in the metaverse or in the real world, otherwise there would be double taxation/no taxation; or (ii) a relationship between business/transactions performed outside the metaverse for the metaverse (with relevance/consequences to the metaverse) or vice versa. A concrete example is a bag purchased in the metaverse and delivered in the real world.

Several more complicated scenarios could arise considering the interaction between the real world and the metaverse and the related correlation between business activities, i.e. those in the metaverse can lead to increased business in the real world.

Based on the above example, what tax implications could there be if B: (i) organizes an event on the land targeted at specific users/locations (ii) conduct business through a meta-shop in the metaverse? What if those goods are sold also in the real world? (iii) what will the applicable law and jurisdiction be in the case of meta-litigation and regarding the interpretation of law and avoiding double taxation?; (d) how will new meta-businesses be regulated and remunerated?

All the above considerations confirm that without a global consensus, double taxation (or even no taxation) will arise.

4. Conclusion

Digitalization is transforming many aspects of our everyday lives, and at the macro-level in terms of how our economy and society is organized. And the metaverse is a digital universe that moves beyond the internet we know today.

This may be more complicated when considering the implications of digital transformation on tax matters.

COVID-19 has unquestionably accelerated all digital processes, forms of communication and work and has thus

also increased the potential of the metaverse. In fact, in recent years, increasing legislative proposals, the positions of tax authorities and the work of international organizations (including the OECD) seek solutions regarding the taxation of crypto and NFTs. A globally agreed solution is thus considered to be urgently needed to avoid the proliferation of unilateral positions that lead to abuse and uncertainty under the current legal framework.

This conclusion is further supported if one considers the provisions in current double taxation treaties that are no longer appropriate and do not reflect the current economic environment.

Indeed, if we consider the latest OECD work on the taxation of the digital economy, it is quite clear that international taxation has changed its principles, which are generally aimed at identifying the market in which the final users/buyers of a good or service are located. For example, for Online Intermediation Platform Services the rule is designed according to the nature of the goods/services being intermediated, i.e. revenue from online advertising services, revenue from sale or other alienation of user data, revenue from online intermediation platform services, revenue from digital content services. With reference to Revenue from consumer-facing goods sold directly to consumer, the sourcing rule is the jurisdiction of the place of final delivery of the good to the consumer and the relevant indicators are the jurisdiction of the retail storefront directly selling to consumers, or if not applicable, the jurisdiction of the final delivery address of the goods to the consumer.³⁵

Based on the above, we believe that the principles that might be introduced with Pillar One could quickly become outdated and thus need revamping (or leave room to a new work on Pillar Three) to address the tax challenges of the metaverse and any other implications that arise.

In this respect, the main issues that could be addressed are (i) characterization of income generated in the metaverse, (ii) source of the income and (iii) amount of the income to be taxed.

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35. See Pillar One, Chapter 4, Revenue Sourcing Rules.