Allocation of the Right to Tax Income from Digital Products and Services

A Legal Analysis of International Tax Treaty Law

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- A legal analysis of international tax treaty law

Louise Fjord Kjærsgaard

Primary supervisor: Professor WSR Peter Koerver Schmidt

Secondary supervisor: Professor Jane Bolander

Copenhagen Business School

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Preface

This study was submitted as my PhD dissertation in June 2021 and accepted for defense to take place on 20 October 2021. In the dissertation it is analyzed how taxing rights to income generated by businesses deploying highly digitalized business models is allocated between contracting states.

The dissertation has been written from 2018 to 2021 as part of my position as PhD Scholar at CBS LAW under the supervision of Professor WSR Peter Koerver Schmidt and Professor Jane Bolander. The five articles included in this dissertation have all been published in international journals, which kindly have accepted that the published articles also form part of this dissertation. In this regard, I would like to thank peer-reviewers for their valuable input but stress that all content included in the dissertation is my full responsibility.

Before and next to my position as PhD Scholar, I have been working as tax advisor at CORIT Advisory. I would like to send a word of gratitude to my colleagues at CORIT Advisory (in particular Katja Dyppel Weber, Jakob Bundgaard and Michael Tell), with whom I have been so privileged to be able to discuss tax law issues for several years.

In 2019, I was fortunate to have a research stay at New York University and I would like to thank Professor David Rosenbloom for inviting me and for letting me use facilities as well as attend seminars on international taxation. I received generous external funding from Handelskammerets Understøttelsesfond (administered by the Danish Chamber of Commerce) and FSR's Studie- og Understøttelsesfond which allowed me to spend some dedicated time abroad to conduct research. I would like to express my sincere gratitude for the much-appreciated financial support which enabled this stay abroad.

A special gratitude goes to my primary supervisor Professor WSR Peter Koerver Schmidt for invaluable motivational support and commitment throughout the process of writing this study and for giving me valuable input as well as constructive criticism.

Lastly, let me express my gratitude to my friends and family for their encouraging support and interest in my research. Yet, most of all, I would like to thank my love, Mads, for his endless patience for always believing in me and for supporting me in whatever road I have chosen – I dedicate this dissertation to him.

Louise Fjord Kjærsgaard
Copenhagen NV, October 2021

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PART I: The Subject, Methodology, and Structure of the Dissertation

1. The Subject and its Relevance

This dissertation contains a legal dogmatic analysis of the allocation of taxing rights to cross-border income generated from the provision of digital products and services from a tax treaty perspective. While the allocation of taxing rights between contracting states has been subject to debate for decades, the topicality of this subject is justified by the digitalization of the economy. This has been argued to reshape the economy resulting in broader tax challenges and legal questions from an international tax perspective.[1]

Digital technologies play an increasingly significant role for the economy, and it has previously been argued that digitalization generally increases productivity.[2] To benefit from the economic potential political decisionmakers intend to encourage and contribute to technological development. However, businesses deploying technological solutions in their business models and national tax authorities have experienced severe challenges when modern technological solutions must be assessed in accordance with current tax legislation that originates from another age when businesses were "brick and mortar".[3] Uncertainty, including legal ambiguity within tax law, is something that the management of businesses aim to manage, mitigate, or even avoid. Hence, failing to address these challenges and respect the businesses' legitimate expectations should be expected to have negative consequences for businesses and society.[4]

Although the legal and practical challenges brought by digitalization are multi-faceted, from an international tax perspective, the challenges experienced generally relate to the transformation of

[1] *See e.g.,* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), Chapter 7: *Broader direct tax challenges raised by the digital economy and the options to address them*.
[2] *See e.g.,* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), p. 13.
[3] *See e.g.,* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), pp. 25 and 109; Gijsbert W. J. Bruins, Luigi Einaudi, Edwin R. A. Seligman and Josiah Stamp, *Report on Double Taxation,* submitted to the Financial Committee Economic and Financial, Document E.F.S.73. F.19 (5 April 1923), pp. 19-23; John. F. Avery Jones, Luc De Broe, et al., *The Origins of the Concepts and Expressions Used in the OECD Model and their Adoption by States*, 60 Bulletin for International Taxation 6, pp. 233 and 234; Eva Melzerova, *Article 5 – Dependent agent permanent establishment* in: *History of Tax Treaties, The Relevance of the OECD Documents for the Interpretation of Tax Treaty* (T. Ecker and G. Ressler eds., Linde 2011, pp. 261 and 262. Melzerova contends that, while the 1923 report did not result in a practical and "ready-to-be-used" definition of a PE, the report brought an in-depth analysis of the cornerstones of international taxation and identified common treaty practice thus far. To summarize, Melzerova finds that the report at least inspired the direction of thinking of other international tax standard-setters, e.g., the OECD.
[4] *See e.g.,* IMF/OECD, *Report for the G20 Finance Ministers Tax Certainty*, (OECD publishing 2017), p. 25.

traditional products and services as well as how they may be provided to customers.[5] This transformation has been referred to as "dematerialization" and "servitization".[6] Further, tax challenges are a result of the development of new products and services as well as entire new business models and access to new pools of demand in the market enabled by the digitalization of the economy at large.[7]

As will be illustrated through this dissertation, the legal questions arising under the current international tax regime may inter alia relate to identifying the relevant transactions for tax treaty purposes, e.g., in interactions when there is no monetary means of exchange between parties but "something else" that may be argued to have economic value to some or all of the parties involved in the interactions. Another legal question that arises is whether a transaction, for tax treaty purposes, in fact encompasses consideration for only one, or alternatively, more products and services. Finally, once the relevant transaction has been identified, legal questions may arise with respect to determining the correct allocation of the taxing right to the generated income. This includes classifying a payment for tax treaty purposes and assessing the extent of the presence of the seller outside the national borders of the domicile state.

These emphasized legal questions are the primary focus within this dissertation. The importance of these legal questions is arguably exacerbated by the increased internationalization of business activities that are enabled by new technologies that are more cost-efficient. The consequently amplify the volume of cross-border transactions and therefore, arguably, also intensify the need for clear international tax rules and principles.[8]

From the perspective of digitalized businesses, the high legal uncertainty surrounding the allocation of taxing rights and the associated risk may imply that these businesses have difficulties with developing and implementing digital solutions in their business models while complying with legal requirements and corporate social responsibility tax policies. Further, there is a risk of double taxation or double non-taxation in cross-border transactions.[9] In a worst-case scenario, uncertainties in tax legislation may lead

[5] *See e.g.,* IMF/OECD, *Report for the G20 Finance Ministers Tax Certainty*, (OECD publishing 2017), p. 22.
[6] *See e.g.,* Iddo K. Wernick, Robert Herman, Shekhar Govind & Jesse H. Ausubel: *Materialization and Dematerialization: Measures and Trends*, 125 The Liberation of the Environment 3, (1996), pp. 171-198. Published by: The MIT Press on behalf of American Academy of Arts & Sciences; Sandra Vandermerwe and Juan Rada: *Servitization of business: Adding value by adding services*, 6 European Management Journal 4, (1988), pp. 314-324. The transformation of software products from goods to services may also be referred to as "Something-as-a-Service" or "X-as-a-Service".
[7] *See e.g.,* IMF/OECD, *Report for the G20 Finance Ministers Tax Certainty*, (OECD publishing 2017), p. 22.
[8] *See e.g.,* IMF/OECD, *Report for the G20 Finance Ministers Tax Certainty*, (OECD publishing 2017), p. 9.
[9] *See e.g.,* IMF/OECD, *Report for the G20 Finance Ministers Tax Certainty*, (OECD publishing 2017), pp. 30 and 32. In the survey on tax certainty, 724 businesses participated and among the participants uncertainty about the effective tax rate on profit was the most important tax factor affecting business and investment decisions. Among the most important factors for tax uncertainty, the businesses emphasized inconsistency or conflicts between tax authorities in the interpretation of international tax standards, tax legislation not keeping up with the evolution of

to a situation in which obvious efficiencies and growth potentials that could be achieved through digitalization are abandoned due to the irreversible tax consequences that potentially may be a result thereof.

From the perspective of political leaders, tax authorities and the media, a growing concern has been expressed in regard to the wide spread digitalization of the economy and the perceived exacerbated opportunities for (aggressive) international tax planning that are also facilitated by the key features of business models relying on digital technologies.[10] In addition, the past decade has featured a significant increase in broad public attention on the field of international taxation and given rise to the involvement of new critical actors and legal scholars.[11] The growing interest in the current international tax regime among political leaders, the media, and the broad public is arguably a result of multiple factors including an increase in the globalization and inherent cross-border transactions inter alia facilitated by the digitalization of the economy. Additionally, the aftermath of the financial crisis and the latest Covid-19 pandemic has implied a significant increase in the need for governments to finance their public

new business models and legislative and tax policy design - mainly through complexity, e.g., in respect of the concept of a PE and through ambiguous, poorly drafted legislation.

[10] The OECD lists the following key features of the digital economy: Mobility with respect to intangibles, users, and business functions, reliance on data, network effects, use of multi-sided business models, tendency toward monopoly or oligopoly and volatility. *See* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), pp. 64-65. Among the so-called highly digitalized businesses, the OECD has emphasized the cross-jurisdictional scale without mass, the importance of intangible assets, and the significance of data, user participation and their synergies with IP. *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), pp. 51-59. *See also* IMF/OECD, *Report for the G20 Finance Ministers Tax Certainty*, (OECD publishing 2017), p. 35. Tax authorities from 25 countries participated in the survey on tax certainty and they considered tax certainty to have high priority. Among the most important factors for tax uncertainty, the tax authorities emphasized legislative and tax policy design through complexity, unclear, and poorly drafted legislation as well as aggressive tax planning and non-cooperation by businesses in addition to a lack of transparency and a delay from businesses.

[11] In addition to medias around the world, the new critical actors also include, *e.g.*, NGOs such as Oxfam and ActionAid, whereas a few examples of the established legal scholars engaging in the debate on international taxation and increased digitalization of the economy are Wolfgang Schön, *Ten Questions about Why and How to Tax the Digitalized Economy*, 72 Bulletin for International Taxation, 4/5, (2018), pp. 278 et seq.; Eric C.C.M. Kemmeren, *Should the Taxation of the Digital Economy Really Be Different?* 27 EC Tax Review 2, (2018), pp. 72 et seq.; Marcel Olbert and Christoph Spengel International, *Taxation in the Digital Economy: Challenge Accepted?* 9 World Tax Journal 1, (2017), pp. 3 et seq., and the same authors *Taxation in the Digital Economy – Recent Policy Developments and the Question of Value Creation,* 2 IBFD International Tax Studies, 3, (2019); Georg Kofler, Gunter Mayr and Christoph Schlager, *Taxation of the Digital Economy: "Quick Fixes" or Long-Term Solution?* 57 European Taxation 12, (2017), pp. 523 et seq.; Maarten de Wilde, *Preface in Sharing the Pie: Taxing Multinationals in a Global Market* (IBFD 2017), and the same author *'Sharing the Pie': Taxing Multinationals in a Global Market*, 43 Intertax 6/7, (2015), pp. 438 et seq. and *Comparing Tax Policy Responses for the Digitalizing Economy: Fold or All-in*, 46 Intertax 6/7, (2018), pp. 466 et seq.; Schön, Wolfgang, *One Answer to Why and How to tax the Digitalized Economy,* Intertax, vol. 47, no. 12, (2019), pp. 1003 et seq.; Xiaorong Li, *A Potential Legal Rationale for Taxing Rights of Market Jurisdictions,* 13 World Tax Journal 1, (2021), pp. 26 et seq; Jinyan Li, *The Legal Challenges of Creating a Global Tax Regime with the OECD Pillar One Blueprint,* 72 Bulletin for International Taxation 2 (2021), 84 et seq., Johannes Becker and Joachim Englisch, *Taxing Where Value Is Created: What's "User Involvement" Got to Do with It?* 47 Intertax 2, (2019), pp. 161 et seq.

spending.[12] Last but not least, a series of large-scale leaks exposed to the public, e.g., the so-called LuxLeaks, Panama Papers, and Paradise Papers, have likely been contributing factors to the upsurge of attention on international taxation. These factors have resulted in persistent criticisms arguing that the international tax system of tax treaties must be changed to provide for a "fairer" allocation of tax revenue among contracting states.

1.1. Political Work on Addressing the Concern from the Digitalization of the Economy

1.1.1. OECD/G20 Inclusive Framework on BEPS

In response to the growing concern related to international taxation of businesses operating within the digitalized economy, the OECD and the G20 published an ambitious action plan addressing base erosion and profit shifting (hereinafter: BEPS) in July 2013 that identified 15 actions to address the risks of BEPS.[13] In October 2015, the OECD and G20 delivered their final reports on the project, including Action 1: *Addressing the Tax Challenges of the Digital economy*. In the Final Report on Action 1, it was inter alia concluded that, while the digitalization of the economy could exacerbate the risk of BEPS,[14] it also raised broader challenges in respect of the heavy reliance on user data, nexus, and classification of income from digital products and services for tax treaty purposes.[15]

Several solutions specifically addressing some of these broader tax challenges raised by the digitalization of the economy were proposed and discussed during the process.[16] However, in the final report, it was stated that it was expected that other measures developed under the BEPS Project would address the risks of BEPS exacerbated by the digitalization of the economy. Further, it was admitted that the conclusions drawn by the Technical Advisory Group were not accepted by all countries participating in the BEPS-

[12] *See e.g.,* OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020), p. 7.
[13] OECD, *Action Plan on Base Erosion and Profit Shifting*, (OECD Publishing 2013).
[14] *See* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), chapter 5: *Identifying opportunities for BEPS in the digital economy*.
[15] *See* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), chapter 7 *Broader direct tax challenges raised by the digital economy and the options to address them*.
[16] For direct tax purposes, the following proposals were discussed: (1) Modification to the exemptions from a PE; (2) A new nexus based on a significant digital presence; (3) Replacing concept of PE with a significant presence; (4) Creation of a withholding tax on digital transactions and (5) Introducing a bandwidth or "bit" tax, OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: 2014 Deliverable* in (OECD/G20) Base Erosion and Profit Shifting Project, (OECD Publishing 2014), pp. 143-146.

Project.[17] Nonetheless, the OECD announced that it would continue its work on these issues, monitor the development over time and produce a final report by 2020 – currently postponed until mid-2021.[18]

The continued work resulted in an interim report by the OECD/G20 Inclusive Framework on BEPS (hereinafter: the Inclusive Framework)[19] in March 2018.[20] In this report, it was analyzed whether and how *highly digitalized businesses* create value focusing on the significant features of these business models.[21] Among the significant features that were identified was the ability of some multinationals to "scale without mass", i.e. these highly digitalized businesses can be heavily involved in the economic life of a jurisdiction without any or any significant physical presence.[22] This development was argued to affect the distribution of taxing rights according to tax treaties by reducing the number of jurisdictions where a taxing right can be asserted over business profit from cross-border activities.[23]

Further, the Interim Report described the tax challenges from these significant features of highly digitalized business models. Notably, it was stated that among the members of the Inclusive Framework, there were different views on the scale and nature of those tax challenges as well as whether and to what extent the international tax rules should be changed as a consequence.[24]

[17] *See* OECD: *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), pp. 117 and 148.
[18] *See* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), p. 138; OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020), p. 9; OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020), p. 12.
[19] The "OECD/G20 Inclusive Framework on BEPS" groups countries and jurisdictions (as of 9 June 2021, the Inclusive Framework comprises 137 countries and jurisdictions) on an equal footing for multilateral negotiation of international tax rules. The members have agreed to implement four minimum standards from the final BEPS-reports, *i.e.,* the anti-tax avoidance provision in tax treaties; transfer pricing documentation and country-by-country reporting; curb harmful tax practices and improve the mutual agreement procedure. The members follow and accept the implementation of the minimum standards and the ongoing work to address the tax challenges arising from the digitalization of the economy.
[20] OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018).
[21] *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018). The highly digitalized business models were exemplified by social network, *e.g.,* Facebook pp. 44-51, online retailers of tangible goods, *e.g.,* Amazon e-commerce pp. 60-66, intermediary platform in the sharing economy, *e.g.,* Uber pp. 66-73 and Cloud computing service provider *e.g.,* Amazon Web Service, pp. 73-79.
[22] *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), p. 24.
[23] *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), p. 108.
[24] *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), p. 172.

In February 2019, the Inclusive Framework published a Public Consultation Document[25] that broadened the scope of businesses within the ambit of the proposed solutions if compared to the highly digitalized businesses within the scope of the Interim Report from 2018. The considered solutions were divided into two pillars. Pillar One contained the following three proposals for a "new nexus"[26] of centralized multinationals: *i)* User participation nexus, *ii)* Marketing intangible nexus, and *iii)* Significant economic presence nexus.[27] The three proposals had in common that they did not require a traditional physical presence in the market state to create a taxable presence of the company in the market state. Pillar Two contained proposals for global anti-base erosion rules – GloBE – which, in addition to the measures implemented as part of the original BEPS Project, should ensure that the tax base of multinational enterprises is not eroded or shifted to low or no tax jurisdictions. The proposals were an income inclusion rule and a tax on base eroding payments.[28] Still, it was stated that among the members of the Inclusive Framework, there was no consensus on whether or to what extent new international tax rules were actually necessary.[29] More than 200 comments were submitted from various stakeholders around the world. In general, it seemed to be the understanding among the responders that it was no longer a question of *whether* the international tax rules on allocation of the taxing rights should be amended. Instead, it was examined *how* they should be amended and that the alternative to a consensus-based solution (likely fragmented unilateral measures) would be more unfavorable.[30] Further, several multinational enterprises explicitly stated that they were willing to pay higher taxes in order to achieve legal certainty through more formalistic and less subjective rules.[31]

[25] OECD, *Public Consultation Document - Addressing the Tax Challenges of the Digitalisation of the Economy*, 13 February – 6 March 2019, in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019).

[26] The term "new nexus" refers a new connection between a business and a contracting state which justifies an allocation of taxing right to this contracting state.

[27] *See* OECD, *Public Consultation Document - Addressing the Tax Challenges of the Digitalisation of the Economy*, 13 February – 6 March 2019, in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019), pp. 8-23.

[28] *See* OECD, *Public Consultation Document - Addressing the Tax Challenges of the Digitalisation of the Economy*, 13 February – 6 March 2019, in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019), pp. 24-29.

[29] *See* OECD, *Public Consultation Document - Addressing the Tax Challenges of the Digitalisation of the Economy*, 13 February – 6 March 2019, in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019), p. 3.

[30] Responses on OECD: *Public Consultation Document - Addressing the Tax Challenges of the Digitalisation of the Economy*, 13 February – 6 March 2019, in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019) may be found here: https://www.oecd.org/tax/beps/public-comments-received-on-the-possible-solutions-to-the-tax-challenges-of-digitalisation.htm (last accessed: 9 June 2021). *See e.g.,* responses from Johnson & Johnson, Spotify and The Digital Economy Group.

[31] *See* response from Johnson & Johnson in Responses on OECD, *Public Consultation Document - Addressing the Tax Challenges of the Digitalisation of the Economy*, 13 February – 6 March 2019, in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019) p. 2.

In May 2019, the Inclusive Framework published a Programme of Work[32] in its ongoing efforts to provide a consensus-based solution for the tax challenges originating from the digitalization of the economy. The publication contained the three proposals for allocating income to a "new nexus" in the market jurisdictions.[33] Further, in October 2019, the OECD Secretariat published another Public Consultation Document[34] with its proposal for a "Unified Approach" under Pillar One. The proposed solution was a three-tier mechanism for allocating income to market jurisdictions, either as a consequence of a sales-based "new nexus" or based on a taxable presence according to the existing international tax rules.[35] This public consultation was followed with a Statement by the Inclusive Framework in January 2020[36] confirming the Unified Approach and adding high-level considerations on how to prevent double taxation, disputes between taxpayers and tax authorities – potentially in multiple jurisdictions – as well as a dispute resolution.

Finally, the latest publication from the work conducted by the Inclusive Framework is the *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* and *Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint* published on 14 October 2020.[37] In general, the Pillar One Blueprint seeks to adapt the international tax system to the new and the transformed

[32] OECD, *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019).

[33] *See* OECD, *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019), pp. 9-22. The three proposals were: *i)* a modified residual profit split method; *ii)* a fractional apportion method; and *iii)* a distribution-based method.

[34] OECD, P*ublic consultation document - Secretariat Proposal for a "Unified Approach" under Pillar One*, 9 October 2019 – 12 November 2019 in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019).

[35] *See* OECD, P*ublic consultation document - Secretariat Proposal for a "Unified Approach" under Pillar One*, 9 October 2019 – 12 November 2019 in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2019), pp. 9-16. Amount A allocates a share of deemed residual profit to market jurisdictions with a "new nexus" using a formulaic approach. Amount B allocates a fixed remuneration for baseline marketing and distribution functions that take place in the market jurisdiction with a taxable presence under the current international tax rules. Amount C allocates any additional profit when in-country functions exceed the baseline activity compensated under Amount B.

[36] 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* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020).

[37] OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020); OECD: *Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020). OECD: Virtual meeting on the Pillar One Blueprint 14 January 2021, may be accessed: http://www.oecd.org/tax/beps/public-consultation-meeting-reports-on-the-pillar-one-and-pillar-two-blueprints.htm?utm_source=Adestra&utm_medium=email&utm_content=Join%20us&utm_campaign=Tax%20News%20Alert%2014-01-2021&utm_term=ctp (last accessed 9 June 2021). The Pillar One Blueprint is also discussed by *e.g.,* Ana Paula Dourado, *The OECD Report on Pillar One Blueprint and Article 12B in the UN Report*, 49 Intertax 1, (2021), pp. 3 et seq; Stefan Greil and Thomas Eisgruber, *Taxing the Digital Economy: A Case Study on the Unified Approach*, 49 Intertax 1, (2021), pp. 53 et seq.

business models facilitated by the digitalization of the economy through changes to the nexus and profit allocation rules on business profits. The aim is to expand the taxing rights of market states when a multinational enterprise has an *active* and *sustained* participation in the economy of that jurisdiction through activities in, or remotely directed at, that jurisdiction.[38] The contemplated measures in the Pillar One Blueprint may be grouped into:[39]

i) A new taxing right for market states for a share of residual profit calculated at the group level of a multinational enterprise providing automated digital services as well as consumer-facing businesses (Amount A).

ii) A fixed return for certain baseline marketing and distribution activities that are taking place physically in a market state, i.e., a taxable presence according to the current international tax rules (Amount B).

iii) A new mechanism to ensure early tax certainty, dispute prevention, and resolution.

iv) Administration and implementation of the contemplated measures.

Briefly summarized, Pillar Two seeks to establish a global framework of minimum taxation through the following four different mechanisms:[40]

i) The income inclusion rule that is intended to work as a "top-up tax" when income of controlled foreign entities is taxed below an effective (undecided) minimum tax rate.

ii) The switch-over rule complements the income inclusion rule by preventing treaty benefits in situations when domestic tax legislation of a jurisdiction provides for tax relief through the exemption-method that could prevent the application of a "top-up tax" to branch structures.

iii) The undertaxed payments rule which serves as a backstop to the income inclusion rule through application to certain entities; the "top-up tax" computation is the same as under the income inclusion rule.

iv) The subject-to-tax rule would help source countries protect their tax base by denying treaty benefits for deductible intra-group payments made to jurisdictions with no or a low (undecided) level of taxation.

While the Pillar One and Pillar Two Blueprints provide substantial information and clarity on the contemplated solutions, significant technical issues remain on which political decisions are required

[38] *See* OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020), p. 11.
[39] *See* OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020), p. 11.
[40] *See* OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020), p. 12.

before a final solution may be presented. Hence, it is still uncertain whether consensus will be reached this time around.[41]

1.1.2. The European Union

Following the work conducted by the Inclusive Framework but possibly recognizing the challenges of arriving at a common consensus, the EU has worked on measures to address the perceived challenges brought by the digitalization of the economy. The EU Commission has recently published its communication on business taxation for the 21st century.[42] Among the initiatives intended to ensure fair and effective taxation within the EU, it is contended that Pillar One and Pillar Two should be transposed into domestic tax laws of the EU Member States through two EU Directives.[43] In addition, the EU Commission intends to propose a digital levy that should "coexist" with the implementation of a consensus-based solution of the Inclusive Framework.[44] It is noted by the EU Commission that these proposals will differ from the two proposals for directives that were presented in 2018[45] which will be withdrawn as part of the package on business taxation for the 21st century.[46] However, at the time of writing no details on these proposals or the degree of support among the EU Member States have been indicated.

1.1.3. The United Nations

In addition to the work conducted by the Inclusive Framework and the EU Commission, the UN has been working on two proposals. One proposal adding 'software' to the definition of royalties in Article 12(3)

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[41] *See* OECD, *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2020), pp. 8 and 10. This was also confirmed by the OECD at the virtual meeting on the Pillar One Blueprint 14 January 2021, may be accessed: http://www.oecd.org/tax/beps/public-consultation-meeting-reports-on-the-pillar-one-and-pillar-two-blueprints.htm?utm_source=Adestra&utm_medium=email&utm_content=Join%20us&utm_campaign=Tax%20News%20Alert%2014-01-2021&utm_term=ctp (last accessed: 9 June 2021).

[42] European Commission, *Communication from the Commission to the European Parliament and the Council: Business Taxation for the 21st Century,* COM(2021) 251 final, 18 May 2021.

[43] *See* Cécile Brokelind, *An Overview of Legal Issues Arising from the Implementation in the European Union of the OECD's Pillar One and Pillar Two Blueprint,* Bulletin for International Taxation, vol. 75, no. 5, (2021), pp. 212 et seq. Brokelind concludes that '[a] *serious investigation on how a directive implementing Pillar One and Pillar Two to match the existing secondary legislation in the field of direct taxation would have to be carried out to check out potential cases of conflict, especially in the field of anti-tax avoidance.*'.

[44] *See* Pasquale Pistone, João Félix Pinto Nogueira and Alessandro Turina, *Digital Services Tax: Assessing the Policy Reasons for its Introduction in the European Union,* International Tax Studies, vol. 4, no. 4, (2021).

[45] The 2018 proposals were: *Council Directive laying down rules relating to the corporate taxation of a significant digital presence,* COM(2018) 148 final and *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.

[46] European Commission, *Communication from the Commission to the European Parliament and the Council: Business Taxation for the 21st Century,* COM(2021) 251 final, 18 May 2021, p. 5.

of the United Nation Model Tax Convention between Developed and Developing Countries (hereinafter: the UN Model) and another proposal adding a new Article 12B on income from automated digital services to the UN Model. However, in the 22nd session held at the end of April 2021, the majority of the Subcommittee on the UN Model Tax Convention could not recommend including 'software' and the associated commentaries (in their current form) in the definition of royalty.[47] On the contrary, the majority of the members of the Committee of Experts on International Cooperation in Tax Matters voted to include the new Article 12B in the 2021 update of the UN Model.[48]

Article 12B imply a shared taxing right to cross-border income from automated digital services (hereinafter: ADS) arising in a contracting state pursuant to what will be Article 12B(1) of the UN Model (2021). However, according to para. 2, if the recipient is the beneficial owner, the source taxation shall not exceed a percentage of the gross amount – to be established through bilateral negotiations. Further, recognizing the issues regarding gross-taxation at source, the beneficial owner can pursuant to Article 12B(3) to request that its qualified profits from ADS is taxed based on the net-principle at the tax rate provided for in the domestic laws of the source state. If net-based taxation is requested the "qualified profits" are 30% of the amount following the profitability ratio.

It follows from the coming Article 12B(8) and (9) that income for rendering it shall generally be deemed to "arise" in a contracting state if the payer is a resident or has a permanent establishment (hereinafter: PE) or a fixed base to which the obligation to make the payment is attributable and borne.

According to what will be Article 12B(5) of the UN Model (2021), payment for the ADS will be '*any payment in consideration for any service provided on the internet or an electronic network requiring minimal human involvement from the service provider*' – exemplified by a number of services listed in Article 12B(6) of the UN Model (2021).

[47] United Nations, Committee of Experts on International Cooperation in Tax Matters, *Note by the Subcommittee on the UN Model Tax Convention, Update of the UN Model Double Taxation Convention between Developed and Developing Countries – Inclusion of software payments in the definition of royalties*, E/C.18/2021/CRP.9, Virtual Session: 19-28 April 2021 (8 April 2021).

[48] United Nations, Committee of Experts on International Cooperation in Tax Matters, *Report on the twenty-second session,* E/C.18/2021/CRP.1, Virtual Session: 19-28 April 2021, [hereinafter: Committee, *Art. 12 B on Automated Digital Services,* (E/C.18/2021/CRP.1)]. As a previous proposal on including a new Article 12B in the 2021 update of the UN Model has been subject to analysis in this study, the subsequently amended and accepted provision and associated commentaries are considered in greater detail. While the accepted provision itself is not considered to differ in substance with respect to the underlying principle that is subject to analysis in this study, the commentaries include selectable options for the minority countries not agreeing with the wording of the provision. These options did not form part of the previously presented proposal. The accepted proposal is also discussed by Bob Michel, *Developing Countries Put Their Cards on the Table in the Digital Economy Tax Debate – But Is the UN Committee of Experts Playing a Winning Hand?* IBFD Talking Points, no. 4 (2021).

Compared to the discussion draft presented as part of the 21st session, no material changes have been made to the final and accepted proposal for Article 12B. However, in order to accommodate the large minority of members that raised concern with respect to the severe administrative burden, the commentaries now include an option for contracting states to include thresholds on worldwide revenue and revenue from ADS derived from the contracting state.[49] Further, the commentaries provide an option for excluding payments made by individuals for services for the personal use.[50] In this respect it should be noted that it is now explicitly stated – without elaborating on the reasoning – in the coming commentaries that '*it cannot be argued that the voluntary or involuntary provision of data by users, as a condition to access the social platform or search engine, or any other automated digital service, has to be considered as a type of payment in consideration for the automated digital services.'*.[51] Finally, it should be mentioned that, if the option for net-based taxation is requested, the commentaries now provide an alternative for contracting states to include a right to deduct a fixed percentage reflecting a "deemed return on routine function for providing the ADS". This is to prevent double taxation of routine profit forming part of the profits derived from providing the ADS if these functions are performed by a PE in the source state and therefore already remunerated and taxed in the source state.[52]

Although the majority of UN Committee members voted in favor of including the new Article 12B and its associated commentaries in the 2021-version of the UN Model, it is uncertain what influence and support the provision will receive in practice as this amendment (currently) is not followed-up with an instrument for implementing the provision in existing tax treaties.

[49] *See* Committee, *Art. 12 B on Automated Digital Services,* (E/C.18/2021/CRP.1), p. 13.
[50] *See* Committee, *Art. 12 B on Automated Digital Services,* (E/C.18/2021/CRP.1), p. 27.
[51] *See* Committee, *Art. 12 B on Automated Digital Services,* (E/C.18/2021/CRP.1), p. 29.
[52] *See* Committee, *Art. 12 B on Automated Digital Services,* (E/C.18/2021/CRP.1), pp. 18-19.

2. Objective with the Dissertation and Research Questions

While recognizing the ongoing work and the progress as presented in the preceding sections, there is still no broad-based consensus on any of these measures and it is uncertain whether and when it will be reached as well as the actual design of a potential consensus-based solution. Further, if consensus is reached, it has not been prioritized – based on the content of the proposals published until now – to provide guidance on the broader challenges of identifying the relevant transactions and classifying payments for new products and services for international tax treaty purposes. This is despite the fact that such tax challenges were identified in Action 1 of the Final BEPS Reports in 2015[53] and re-affirmed in the Interim Report in 2018.[54]

Consequently, the public debate seems to have been centered around the risk of base erosion and profit shifting as well as broadening the scope of the taxing rights allocated to non-domicile states. However, it is the challenges under the currently applicable international tax rules that are subject to analysis in this dissertation. More specifically, it is primarily the rules that are established in the OECD Model Tax Convention on Income and on Capital (hereinafter: the OECD Model) from 2017, also including the treaty-related components of the BEPS Project that are subject to analysis in this dissertation.

Accordingly, based on a presentation of digital technologies and how they may be deployed in business models, the fundamental purpose with this dissertation is to identify, analyze, and assess the legal questions and uncertainties in the current international tax treaties with respect to allocation of taxing rights between contracting states. More specifically, the complete analysis is intended to answer the following overall research question:

> *How are the taxing rights to income from the provision of digital products and services allocated under the OECD Model (2017)?*

When answering the primary research question in this dissertation, it became apparent that the domicile states are often granted the exclusive right to tax. Further and somewhat in accordance with this conclusion, the discussions within the field of international taxation seemed to have narrowed down to market states allegedly often being left with no or limited revenue to tax. However, while the striking consensus in the current debate is that the international tax regime needs to be reshaped, the specific policy argument on why this must occur may be simply expressed as '*too little business income from*

[53] *See* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), pp. 104-106.
[54] *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), p. 169.

cross-border sales or services being taxed in market states'. [55] This in itself, however, does not juridically justify why more taxing rights to cross-border income from the provision of digital products and services should be allocated to market states. Accordingly, to recognize the development and focus of the debate within the field of international taxation, it was decided to add the following research question:

> *Why should more taxing rights to income from the provision of digital products and services be allocated to market states and does this justify the proposals recently discussed?*

Due to the constraints of this dissertation – and to enable sufficiently focused and thorough analyses of the quite technical and complicated international tax rules – a demarcation of the topic is necessary. Consequently, to answer the first research question, the allocation of the taxing rights to income from the provision of digital products and services will be analyzed and answered based on an analysis of certain selected digital products and services, specifically the following:

- Business models previously referred to as "highly digitalized business models";
- Provision of cloud computing-as-a-service;
- Interactions between intermediary platforms and its users, including interactions with no monetary means of exchange, and
- Capital raised through Initial Coin Offerings (hereinafter: ICO) to fund the development of new projects as well as investors' return on their investment in ICOs.

Further, to offer wider and new academic perspectives, tax policy considerations on the identified legal questions and uncertainties arising under the current international tax regime will be provided. As further elaborated below in section 3.5, these considerations will be focused on a discussion of the findings on the allocation of taxing rights considering the principles of neutrality between more traditional and highly digitalized business models, as well as the principle of ability to pay and the principle of legal certainty. The purpose of including such normative considerations in this dissertation, is not to provide a perfect solution to the identified challenges but instead to contribute to the ongoing debate of how to provide a fair allocation of the taxing rights under the international tax regime.

On this basis, an important aim is to generate new scientific and practical relevant knowledge from the standpoint of international tax treaties and thereby contribute to addressing the current legal questions and uncertainties. This will be achieved by analyzing and understanding the new technologies as well as

[55] *See, e.g.,* OECD, *Challenges Arising from Digitalisation – Report on Pillar One Blueprint*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2020), p. 11, United Nations, Committee of Experts on International Cooperation in Tax Matters, *Report on the twenty-first session* E/C.18/2020/CRP.41 (Virtual Session – 20-29 October 2020), p. 6 and United Nations, Committee of Experts on International Cooperation in Tax Matters, *Note by the Subcommittee on the UN Model Tax Convention, Update of the UN Model Double Taxation Convention between Developed and Developing Countries – Inclusion of software payments in the definition of royalties*, E/C.18/2020/CRP.38 (7 October 2020), p. 2.

the scope and limitations of the current international tax regime – hopefully, to the benefit of policymakers, legal scholars and practitioners of international tax law.

2.1. Choice of Technologies

The choice of digital products and services that are subject to analysis should be considered as illustrative examples of the challenges related to determining the allocation of taxing rights to income related to these digital products and services. The preference has primarily been based on the following three criteria:

- The expected or already present significance of the product or service within the economy.
- The capability of the product or service to illustrate the debated challenges of allocating the taxing rights. Further, that the findings related to the selected digital products and services can provide guidance on similar challenges arising with other known and future products and services fostered by the digitalization of the economy.
- The need for further academic analysis of the international tax challenges created by the product and service.

Accordingly, business models that are often referred to as "highly digitalized business models", i.e. inter alia business models based on the provision of cloud computing, social networks, online retailing, intermediary platforms, and search engines,[56] will be subject to analysis in this dissertation. The significance of these business models is self-evident and cannot be denied. They have fundamentally changed the economy, our trade patterns, the products and services that are provided – and how they may be provided to the customers as well as how we interact with businesses, other customers, and users of the products and services. However, these business models have also been subject to significate debate problematizing their features in the context of the international allocation of taxing rights. The critical debate has, to a large extent, been centered around their perceived ability to "scale without mass", i.e. to operate in multiple jurisdictions without the need to be physically present and the inherent impact on the allocation of taxing rights under the current international tax principles.[57] However, despite the great attention from policymakers and in academia,[58] no previous study has, to the knowledge of the author of

[56] *See e.g.,* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), chapter 2: *Digitalisation, business models and value creation*.

[57] *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), p. 24.

[58] In addition to work conducted under the Base Erosion and Profit Shifting project, *see, e.g.,* Marcel Olbert and Christoph Spengel International, *Taxation in the Digital Economy: Challenge Accepted?* 9 World Tax Journal 1, (2017), pp. 3 et seq.; Daniel W. Blum, *Permanent Establishments and Action 1 on the Digital Economy of the OECD Base Erosion and Profit Shifting Initiative – The Nexus Criterion Redefined*, 69 Bulletin for International Taxation, 6/7, (2015), pp. 314 et seq.; Georg Kofler, Gunter Mayr & Christoph Schlager, *Taxation of the Digital*

this dissertation, systematically confronted these business models with the current principle of nexus in regard to allocating the taxing rights to the generated revenue.[59] On this basis, it is argued that it would be relevant to include a systematic analysis of these highly digitalized business models as part of this dissertation.

Further, the ability of highly digitalized business models to scale without mass is typically enabled through cloud computing that is deployed as a cost-minimizing strategy to supply digital products and services in multiple jurisdictions without the need to establish an infrastructure. Hence, cloud computing, i.e. access to multiple networked computers that are available to those who have access to that "cloud" of computing resources whenever needed, has been considered to be fundamental to accelerating the digitalization of not only highly digitalized business models but also more traditional business models and, therefore, the entire economy.[60] However, challenges related to the allocation of taxing rights to payments for cloud computing-as-a-service have been emphasized inter alia by the OECD in its work under the BEPS Project.[61] Yet, despite the great impact of this technology, prior to this dissertation these challenges had only been analyzed to a limited extent in international tax literature.[62] Further, the complexity of the often multiple services provided under a cloud computing contract is argued to justify a separate analysis of the appropriate treatment and classification of payments for such services.

Economy: Quick Fixes or Long-Term Solution? 57 European Taxation 12, (2017), pp. 523 et seq.; Yariv Brauner and Pasquale Pistone, *Adapting Current International Taxation to the New Business Models: Two Proposals for the European Union*, 71 Bulletin for International Taxation 12, (2017), pp. 681 et seq.; Vishesh Dhuldhoya, *The Future of the Permanent Establishment Concept*, 72 Bulletin International Taxation 4a, (2018); Peter Hongler and Pasquale Pistone: *Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy*, IBFD Working Paper (20 January 2015); Michael P. Devereux and John Vella: *Implications of Digitalization for International Corporate Tax Reform*, WP 17/07, 25 (July 2017).

[59] Pistone, Nogueira and Rodríguez, briefly touch on this issue before moving on to analyzing the 2019 OECD Proposals for Addressing the Tax Challenges of the Digitalization of the Economy, see Pasquale Pistone, João Félix Pinto Nogueira and Betty Andrade Rodríguez, *The 2019 OECD Proposals for Addressing the Tax Challenges of the Digitalization of the Economy: An Assessment*, 2 International Tax Studies 2, (IBFD, 2019).

[60] *See* OECD, *Tax Challenges Arising from Digitalisation – Interim Report* in OECD/G20 Inclusive Framework Base Erosion and Profit Shifting Project, (OECD Publishing 2018), p. 73.

[61] *See* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), p. 138.

[62] *See, e.g.,* José Ángel Gómez Requena, *Tax Treaty Characterization of Income Derived from Cloud Computing and 3D Printing and the Spanish Approach*, 46 Intertax 5, (2018), pp. 408 et seq.; Oliver Heinsen and Oliver Voss, *Cloud Computing under Double Tax Treaties: A German Perspective*, 40 Intertax 11, (2012), pp. 584 et seq.; Piyush Gupta, *Cloud" – A Technological Odyssey*, 20 Asia-Pacific Tax Bulletin 5, (2014), pp. 308 et seq.; Sagar Wagh, *The Taxation of Digital Transactions in India: The New Equalization Levy,* 70 Bulletin for International Taxation 9, (2016), pp. 538 et seq.; Jolande Lærke Jørnsgård and Louise Fjord Kjærsgaard, *Kvalifikation af betalinger for cloud computing efter OECD's modeloverenskomst*, Skat Udland 11, (2016), pp. 581 et seq.; Aleksandra Bal, *The Sky's the Limit – Cloud-Based Services in an International Perspective*, 68 Bulletin for International Taxation 9, (2014), pp. 515 et seq. Subsequently to the publication of the research conducted under this dissertation, more research has been conducted, *see e.g.,* Dina Scornos, *Cloud Computing: Difficulties in Applying Current and Proposed Nexus and Profit Allocation Rules in a Cross-Border Scenario*, 74 Bulletin for International Taxation 2 (2020), pp. 88 et seq.; Alexander Weisser, *International Taxation of Cloud Computing Permanent Establishment, Treaty Characterization, and Transfer Pricing*, (Freier juristischer, 2020).

Another problematized characteristic of these highly digitalized business models is their extensive reliance on data collected from their users and customers, which has been thought of as the new oil that fuels the global economy.[63] Challenges regarding the potential recognition of value creation from users and their data as well as where this value is created has been emphasized. An example of such challenges is the interaction between users and businesses deploying certain highly digitalized business models, i.e., the right for users to employ online platforms against a right of the platform owner to collect user data – without money as a means of exchange. This feature of some highly digitalized business models has been problematized and referred to as the phenomenon of free labor.[64] Although this feature is applicable to most of the highly digitalized business models, the provision of intermediary platforms services has been chosen as the illustrative example. This business model is argued to be based on several interactions between supplying users, acquiring users, and the platform provider and thereby illustrates many of the international tax challenges raised in the debate.

Contrary to the above-mentioned business models that have already had an undeniable impact on the economy, blockchain technology is still rather underdeveloped. Nonetheless, it has been predicted to have the potential to disrupt the economy with respect to how value is exchanged and how value may be stored through encrypted, timestamped, and decentralized systems. Although blockchain technology as applied in bitcoins and other cryptocurrencies has been subject to significant media coverage, the international tax challenges that this technology raises have not prior to this dissertation been subject to a thorough analysis.[65] This is despite the inclusive and borderless features of the technology arguably

[63] *See, e.g.,* Pierre Collin and Nicolas Colin, *Task force on taxation of the digital economy* in *Report to the Minister for the Economy and Finance, the Minister for Industrial Recovery, the Minister Delegate for the Budget and the Minister Delegate for Small and Medium-Sized Enterprises, Innovation and the Digital Economy* (2013), p. 45.

[64] *See, e.g.,* Pierre Collin and Nicolas Colin, *Task force on taxation of the digital economy* in *Report to the Minister for the Economy and Finance, the Minister for Industrial Recovery, the Minister Delegate for the Budget and the Minister Delegate for Small and Medium-Sized Enterprises, Innovation and the Digital Economy* (2013), chapter 2: Data Generated by the "Free Labour" of Application users are the Core of Value Creation.

[65] Subsequent to the publication of the research conducted under this dissertation, more research has been done by others, *see e.g.,* Niklas Schmidt, Jack Bernstein, Stefan Richter, Lisa Zarlenga eds.: *Taxation of Crypto Assets* (Wolters Kluwer, 2020). In the international tax literature, focus has primarily been on the classification and taxation of capital gains and losses from the sale of cryptocurrencies according to domestic tax regulation, *see e.g.* Aleksandra Bal: *Taxation, Virtual Currency and Blockchain*, (Wolters Kluwer 2019), Chapter 5 in respect of the US, the UK, Germany and the Netherlands, Louise Fjord Kjærsgaard and Autilia Arfwidsson, *Taxation of Cryptocurrencies from the Danish and Swedish Perspectives*, Intertax, vol. 47, no. 6/7, (2019), pp. 620 et seq.; Andrew Maples, *A Bit of Tax for the Revenue Authority: The Taxation of Cryptocurrency in New Zealand – Some Initial Thoughts*, New Zealand Journal of Taxation Law and Policy vol. 25, no. 2, (2019), pp. 181 et seq; Flavio Rubinstein and Gustavo G. Vettori, *Taxation of Investments in Bitcoins and Other Virtual Currencies: International Trends and the Brazilian Approach*, Derivatives & Financial Instruments, vol. 20, no. 3 (2018); Flavio Rubinstein and Stéphani Samaha, *Taxation of Investments on the Brazilian Capital Market: New Tax Incentives and Recent Changes*, Derivatives & Financial Instruments, vol. 17, no. 3, (2015); Sunny K. Bilaney, *India: Taxing Time for Cryptocurrencies,* Derivatives & Financial Instruments, vol. 20, no. 4, (2018); Juanita Brockdorff, Justyna Bielik and Katarzyna Bronzewska, *How Small Islands Are Setting the Tone for Crypto Regulation: Malta and Jersey's Approaches*, Derivatives & Financial Instruments, vol. 21, no. 1 (2019); Lorenzo Aquaro, *Taxation of Virtual Currencies from an Italian Perspective,* Finance and Capital Markets, vol. 23, no. 1, (2021).

increasing the need for clarification of the allocation of taxing rights to cross border payments. The predicted potential of blockchain technology as well as the need for further academic research arguably justify that that this technology is included in this dissertation.

Despite the arguments in favor of selecting the above digital products and services, it is recognized that others could have been included as illustrative examples of the international tax challenges related to the allocation of taxing rights. An example of another significant technology is 3D printing which – although still considered an immature technology – provides enormous potential for enabling manufacturing closer to customers, e.g., enabling consumers to influence the design and assembling products themselves by deploying 3D printers that are physically remote from the seller. While this technology arguably holds great developmental capacity, it is argued that the international tax challenges of allocating the taxing rights may be illustrated through the selected technologies – especially the allocation of taxing rights to cloud computing as a service.

Data is another digital product that imposes challenges for international tax purposes. While some aspects of the international tax challenges from data is analyzed in this dissertation, the extensive reliance on data collected from their users and customers is not subject to a full and comprehensive analysis. This is primarily based on the opinion that the appropriate tax treatment is very much depending on domestic tax and commercial law and hence is not as interesting from a tax treaty perspective.[66] Further, an interesting phenomenon heavily relying on data is the "Internet of Things". This is interrelated computing devices and mechanical and digital machines that are provided with unique identifiers (sensors) with the ability to transfer data through a network without requiring human-to-human or human-to-computer interaction. Despite holding great potential, it is argued that while these technologies certainly challenging to assess according to the international tax principles, the challenges of classifying payments and delimiting the scope of a taxable nexus in the digital era is sufficiently covered under the selected digital products and services. Stated otherwise, it is argued that the findings in this dissertation – to a large extent – may also be relevant and applicable to the omitted digital technologies to illustrate the tax challenges brought by digital technologies not subject to a separate analysis in this dissertation. Accordingly, it is argued that even income generated from the provision of digital products and services not specifically subject to analysis in this dissertation may nevertheless (to some extent) rely on the general findings herein.

[66] This became apparent to the author of this dissertation in the process of writing the Danish branch report on subject 2 for the IFA 2021 Berlin Congress: *Big Data and tax – Domestic and International Taxation of Data Driven Business* (postponed to 2022).

2.2. Other Demarcations

Other topics that could appear to be relevant for analyzing and discussing under the formulated research questions include several fundamental concepts influencing most aspects of international taxation. Such fundamental concepts include the concept of "beneficial ownership" which is of significance with respect to the restrictions imposed on the source states in the provisions on dividend, interest, and royalty under the OECD Model. While it is recognized that this concept is of obvious importance, to fully benefit from an analysis of the concept of beneficial owner requires an extensive analysis which could be a dissertation on its own.[67] Accordingly, discussions on this term will not be subject to analysis in this dissertation; instead, it is assumed that the recipient of a payment is the beneficial owner. Similarly, this dissertation does not include an analysis of anti-tax avoidance, shams, and tax evasion. The first is understood as an arrangement reflecting the true nature of what the parties have agreed, however, the arrangement results in an unacceptable tax advantage. The second is when an arrangement "appears" to create certain rights and obligations different from the rights and obligations that the parties intended. Finally, the third is when taxpayers provide incorrect and/or incomplete information to obtain a more beneficial tax treatment.[68] While these doctrines may influence how the taxing rights are allocated, this would require a wide-ranging analysis which again should rather be a dissertation on its own.

In addition, the arm's length nature of arrangement, as defined in Article 9 of the OECD Model (2017) and the accompanying *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (2017),*[69] will not be subject to thorough analysis in this dissertation. Furthermore, the attribution of profit to a taxable nexus according to Article 7 of the OECD Model (2017) and the associated *Report on the Attribution of Profits to Permanent Establishments*[70] and *Additional Guidance on the Attribution of Profits to a Permanent Establishment under BEPS Action 7*[71] will not be subject to comprehensive analysis in this dissertation. While these aspects of international taxation are of importance in practice and, to some extent, related to the formulated research questions, they are not unique or different with respect to transactions involving payments for digital products and services compared to other transactions between related parties or different parts of an enterprise. Further, the arm's length principle and the attribution of profits are not considered at the core of the challenges of *where* to tax income from the provision of digital products and services but instead, *how much* income

[67] For thorough analysis of the concept of beneficial ownership, *see e.g.,* Michael Lang, *Beneficial Ownership: Recent trends*, (IBFD, 2013); Angelika Meindl-Ringler, *Beneficial Ownership in International Tax Law,* (Wolter Kluwer, 2016); C.P. du Toit, *Beneficial Ownership of Royalties in Bilateral Tax Treaties*, (IBFD 1999).
[68] *See* Eivind Furuseth, *The Interpretation of Tax Treaties in Relation to Domestic GAARs,* (IBFD 2018). Section 6.1. Tax evasion and sham.
[69] OECD, *OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, (OECD Publishing 2017).
[70] OECD, *Report on the Attribution of Profits to Permanent Establishments,* (OECD Publishing 2010).
[71] OECD, *Additional Guidance on the Attribution of Profits to Permanent Establishments, BEPS Action 7,* (OECD Publishing 2018).

from the provision of digital products and services that the source states have the right to tax. On this basis, it is – for the purpose of this dissertation – assumed that all transactions and dealings are entered into on arm's length term and accordingly, challenges potentially occurring as a result of a special relationship between the contracting parties are not subject to a thorough analysis in this dissertation.

Further, EU tax law is a part of international taxation and domestic tax legislation as well as tax treaties must adhere to the primary EU tax law and secondary EU legislation. However, while the EU has the capacity and competence to adopt legislative measures on direct taxes, for several reasons exercising this right has been difficult: Firstly, EU Member States have been reluctant to harmonize the area of direct taxation. Second is the requirement for unanimity in the council under the special legislative procedure pursuant to Article 113 of the Treaty on the Functioning of the European Union. Third is the existence of the principle of subsidiarity under Article 5 of the European Union Treaty that restricts legislative intervention by the EU.[72] In this respect, it is noted that the EU has generally refrained from enacting legislation impacting EU Member States' obligations under tax treaties as well as the allocation of taxing rights between EU Member States as well as between EU Member States and third countries.[73] Accordingly, while there are important derogations from the position of the EU not to regulate the allocation of taxing rights between Member States as well as between Member States and third countries,[74] this dissertation will not include a thorough analysis of any aspects of EU law.

Finally, the focus on the allocation of taxing rights under the OECD Model implies that taxes beyond the scope of tax treaties are not subject to a comprehensive analysis. Hence, indirect taxes, e.g., value added taxes, goods and sales taxes and domestic measures such as digital services taxes and equalization levies implemented to ensure taxation in the market states will not be subject to analysis. This also includes analyses of whether such specific domestic measures are, in fact, outside the scope of tax treaties.

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[72] *See e.g.,* Tom O'Shea, *EU Tax Law and Double Tax Conventions,* (Avoir Fiscal Limited 2008), p. 112 and Georg Kofler, *EU power to tax: Competences in the area of direct taxation* in *Research Handbook on European Law,* (Christiana HJI Panayi et al. eds.) (Edgar, 2020), p. 11.

[73] *See e.g.,* Otto Marres, *Division of Tax Jurisdiction; Double Tax Relief Mechanisms; Tax Treaty Issues* in *European Tax Law* (Peter J. Wattel, et al. eds.) (Wolter Kluwer, 2019), p. 714. Marres argues that '[i]*t follows that EU law is in principle indifferent as to the criteria used for the division of taxing power between the two States involved. They are free to use the usual OECD Model connecting factors.'.* On the other hand, Christiana HJI Panayi states that '*even though Member States have technically kept their competences over direct taxation, through a gradual method of what one might call preemptive integration, the Union is increasingly having a greater say over what can be included in tax treaties that Member States enter between themselves and third countries. However, in the absence of clear rules and with the introduction of more extensive but still largely ad hoc secondary legislation, the line between what is and what is not possible is beginning to be blurred.'. See* Christiana HJI Panayi, *The relationship between EU and International tax law* in *Research Handbook on European Law,* (Christiana HJI Panayi et al. eds.) (Edgar, 2020), p. 139.

[74] *See* the Interest-/Royalty Directive (Council Directive 2003/49/EC with later amendments), the Parent-/Subsidiary Directive (Council Directive 2011/96/EU with later amendments), the Merger Directive (Council Directive 2009/133/EC with later amendments) and Anti-Tax Avoidance Directive (Council Directive (EU) 2016/1164) which all to a various extent have an impact on Member States' right to tax certain intra group payments, distributions, restructurings, etc.

3. Methodological Standpoint

As already stated, it is the aim with this dissertation to establish new legal knowledge that is relevant in the attempt to overcome the tax difficulties experienced in practice when digitalized business models should be assessed according to the current international tax rules. Hence, the starting point in this dissertation is a practical problem, i.e., the dissertation addresses technological and business development according to international tax treaty law.[75] The argument for this starting point, is primarily the increasing impact of such digitalized business models within the economy. Further, the analyzed challenges have been problematized by stakeholders around the world and with first-hand experience in the practice of tax law. Such a combination of academic legal scholarship and practical legal knowledge is argued to be mutually beneficial and supported by the fact that legal scholarship is and has throughout history, been characterized by its cohesion to the practice of law.[76]

In accordance with the purpose of providing knowledge of practical use in the application of international tax law and in consistency with the majority of legal research, including other research projects within international tax law, this dissertation will be composed according to a legal dogmatic approach.[77] The purpose of legal scholarship according to the dogmatic position may be described as systematizing, interpreting, and defining the law as it stands to preserve and create a coherent legal system without contradictions in order to assist practitioners in the application of law.[78] Hence, the main

[75] A similar approach has been taken in previous international research within tax law; *see e.g.*, Jakob Bundgaard, *Hybrid Financial Instruments in International Tax Law*, (Kluwer Law, 2017). Another typical starting point in academic research is a rule-oriented starting point/specific tax issue*, see* Eva-Maria Svensson, *Boundary-Work in Legal Scholarship* in *Exploiting the Limit of Law: Swedish Feminism and the Challenge to Pessimism*, (Åsa Gunnarsson, Eva-Maria Svensson and Margaret Davies eds.) (Routledge, 2007), p. 40.

[76] *See e.g.,* Eva-Maria Svensson: *Boundary-Work in Legal Scholarship* in *Exploiting the Limit of Law: Swedish Feminism and the Challenge to Pessimism*, (Åsa Gunnarsson, Eva-Maria Svensson and Margaret Davies eds.) (Routledge, 2007), p. 21; Terry Hutchinson: *Doctrinal research in Research Methods in Law* (Dawn Watkins and Mandy Burton eds.), (Routledge, 2018), p. 28.

[77] *See e.g.,* Terry Hutchinson: *Doctrinal research in Research Methods in Law* (Dawn Watkins and Mandy Burton eds.), (Routledge, 2018), pp. 10; Eva-Maria Svensson, *Boundary-Work in Legal Scholarship* in *Exploiting the Limit of Law: Swedish Feminism and the Challenge to Pessimism*, (Åsa Gunnarsson, Eva-Maria Svensson and Margaret Davies eds.) (Routledge, 2007), p. 23. As a few examples, out of many, of research within international tax law taking the dogmatic position *see e.g.,* Jakob Bundgaard: *Hybrid Financial Instruments in International Tax Law*, (Kluwer Law, 2017), Jens Wittendorff, *Transfer Pricing and the Arm's Length Principle in International Tax Law*, (Kluwer Law, 2010), Oddleif Torvik, *Transfer Pricing and Intangibles – US and OECD arm's length distribution of operating profits from IP value chains*, (IBFD, 2019), *Chapter 1: Research Questions, Methodology and Sources of Law* in *Transfer Pricing and Intangibles*; Aitor Navarro, *Transactional Adjustments in Transfer Pricing*, (IBFD Doctoral Series, 2018); Andreas Bullen, *Arm's Length Transaction Structures: Recognizing and restructuring controlled transactions in transfer pricing*, (IBFD Doctoral Series, 2011), Chapter 1 *Introduction* in *Arm's Length Transaction Structures: Recognizing and restructuring controlled transactions in transfer pricing* (IBFD 2011).

[78] *See* Terry Hutchinson, *Doctrinal research in Research Methods in Law* (Dawn Watkins and Mandy Burton eds.), (Routledge, 2018), p. 29. Hutchinson identifies the following seven steps as being a typical approach under a problem-based doctrinal research: 1) Assemble relevant facts. 2) Identify legal issues. 3) Analyze the issues searching for law. 4) Locate and read background information. 5) Locate and read primary legal sources. 6) Synthesize all the issues in context. 7) Arrive at a tentative conclusion. It should be noted that the widespread adherence to legal dogmatism has also been subject to criticism, *see e.g.,* Terry Hutchinson, *Doctrinal research in Research Methods in Law* (Dawn Watkins and Mandy Burton eds.), (Routledge, 2018), pp. 21-25.

purpose is to establish the applicable law as it stands (*de lege lata)* out of the doctrine of legal sources.[79] In this respect, it is an ongoing debate among legal scholars what should be regarded as "sources of law" and their relative positions.[80]

It is argued that as the aim is to generate legal knowledge for scientific and practical use, the legal value of a source should be determined by the extent it affects the actions of economic actors engaging in, being impacted by or otherwise influencing the international tax system.[81] On this basis and as further elaborated below in section 3.1 to 3.4, the analysis will focus on the OECD Model and will be supplemented only to a limited extent with analyses of national case law, administrative practice and guidelines as well as domestic regulatory actions that attempt to overcome the tax challenges subject to analysis. Notably, this will not be a traditional comparative study in which legal systems and the material tax law of two or more jurisdictions are comprehensively compared.[82] Instead, this will be an analysis of domestic legal sources, which may contribute to emphasize the strengths and weaknesses of the current international tax regime as well as potential similarities and differences in domestic tax systems with respect to the identified tax challenges.[83] However, due to the many different languages of such documents, it is acknowledged that the sources that have been collected may not be fully representative as only documents available in English and, to a limited extent, in Danish have been analyzed. Further, it should be noted that the national legal sources have been identified using international databases such as Kluwer Law, Westlaw International and IBFD including its country tax guides and case law database. In addition, existing comparative studies such as the annual reports from *Cahiers de droit fiscal*

[79] *See e.g.,* Eva-Maria Svensson, *Boundary-Work in Legal Scholarship* in *Exploiting the Limit of Law: Swedish Feminism and the Challenge to Pessimism*, (Åsa Gunnarsson, Eva-Maria Svensson and Margaret Davies eds.) (Routledge, 2007), p. 25.

[80] *See e.g.,* Peter Hongler, *Justice in International Tax Law*. (IBFD 2019), pp. 48-51. Hongler argues that the term "legal sources" is often split into formal law sources (created by a formal law-creation process) and material sources (fundamental values not necessarily created through a formal law-creation process). Further, Hongler argues that that certain ambiguities exist regarding this distinction with respect to international law purposes as there is no constitutionally fixed law-creating process. See also Eva Svensson, Eva-Maria: *Boundary-Work in Legal Scholarship* in *Exploiting the Limit of Law: Swedish Feminism and the Challenge to Pessimism*, (Åsa Gunnarsson, Eva-Maria Svensson and Margaret Davies eds.) (Routledge, 2007), p. 36. Svensson exemplifies various positions in the legal scholarship on what constitutes authoritative sources.

[81] *See also* Peter Hongler, *Justice in International Tax Law*. (IBFD 2019), pp. 49 and 50.

[82] *See e.g.*, Gerhard Danneman, *Comparative Law: Study of Similarities or Differences?* and Ralf Michaels, *The Functional Method of Comparative Law* both in *The Oxford Handbook of Comparative Law* (Mathias Reimann and Reinhard Zimmermann eds.) (Oxford University Press 2006), pp. 384-418 and pp. 340-380, respectively. The obstacles of doing comparative studies are also discussed in Victor Thuronyi: *Studying Comparative Tax Law in International Tax Studies: Law and Economics* in Series on International Taxation, no. 21, (Gustaf Lindencrona, Sven-Olof Lodin and Bertil Wiman eds.) (Kluwer Law International 1999), p. 335.

[83] This approach is somewhat comparable to what has been referred to as a micro-comparative analysis where focus is on specific legal problems instead of more general legal questions. *See e.g.,* Gerhard Dannemann, *Comparative Law: Study of Similarities or Differences* in *The Oxford Handbook of Comparative Law*, (Mathias Reimann and Reinhard Zimmermann eds.) (Oxford University Press, 2006), pp. 386-388. Dannemann argues that the purposes of comparative legal enquiries may include the need for applying foreign law when courts may include foreign case law and administrative practice (particular in respect of classification) and understanding the law, *see* pp. 401- 405.

international have been employed to identify countries' case law, administrative practice and guidance relevant for the analyses that are conducted in this dissertation.[84]

Finally, the analysis aiming at establishing the international tax treaty law *de lege lata* will build on the previous work of other legal scholars and consequently include international tax literature published by legal scholars in international journals and anthologies/books with the aim of taking the analysis one-step further.[85]

It could be argued that the selective basis of this methodology implies an incomprehensive understanding of how income from the provision of digital products and services is to be allocated. However, while recognizing its limitation, it is argued that this methodology may be deployed to provide more clarity on the distinction between the relevant categories of income when applicable to income from digital products and services as well as whether the provision of digital products and services creates a PE of the provider. Further, the novelty and international character of the products and businesses that are subject to analysis benefit from or even require, a broader understanding of the term "sources of law" and not having the perspective of one specific country. This is based on the digitalization of the economy having significantly and rapidly improved the possibility and decreased the costs for businesses to manage their global operations on an integrated basis to an extent that even for small- and medium sized businesses, it is now possible to be "micro-multinationals".[86] Accordingly, the digitalization of the economy implies that many businesses, to a greater extent, have an international focus and thereby a country-specific focus to a lesser extent. Further, the relatively short period of time in which this internationalization has developed implies that the sources of law in a single jurisdiction is usually rather limited. With a lack of sufficient guidance within a single domestic tax system, it is (as elaborated below in section 3.2.) likely that economic actors engaging in, being impacted by, or otherwise influencing taxation of the digitalized economy will include sources of law from other jurisdictions.

To increase the replicability of the analysis and limit the risk of cherry-picking sources that accord with the narrative of the author, the identification of relevant sources has as already stated been based on an extensive number of them that have been identified through recognized international databases and relied

[84] *See also* Victor Thuronyi, *Studying Comparative Tax Law* in *International Tax Studies: Law and Economics,* (eds. Gustaf Lindencrona, Sven-Olof Lodin and Bertil Wiman) Series on International Taxation, no. 21, (Kluwer Law International 1999), pp. 337-338. Thuronyi argues that, due to the significant obstacles in doing comparative studies, Cahiers de droit fiscal international may be relied on, although he notes that one should be aware of the limitations in such reports.

[85] *See also* Eva-Maria Svensson, *Boundary-Work in Legal Scholarship* in *Exploiting the Limit of Law: Swedish Feminism and the Challenge to Pessimism*, (Åsa Gunnarsson, Eva-Maria Svensson and Margaret Davies eds.) (Routledge, 2007), p. 36; Terry Hutchinson, *Doctrinal research in Research Methods in Law* (Dawn Watkins and Mandy Burton eds.), (Routledge, 2018), p. 21. Hutchinson emphasizes that the value given to international tax literature should be dependent on the identity and reputation of the researcher.

[86] *See e.g.,* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), p. 67.

on by other legal scholars. Accordingly, while the conclusions within this dissertation may not provide an ultimate answer as to what a judge of a specific jurisdiction may conclude in a specific situation, it is argued that the conclusions bring the judge almost all the way to the ultimate answer. Accordingly, the analysis is intended to provide a more horizontal and holistic understanding of a topic characterized as not being country-specific but instead having a global perspective and borderless nature. However, before relying on the findings in practice or for further academic research, it is recognized that variances in specific domestic tax systems should be taken into account.

Finally, in addition to the analysis of the international tax treaty law as it stands and adhering to the position of legal dogmatism as well as other studies within international tax law, this dissertation will include considerations *de lege ferenda*.[87] As further elaborated below in section 3.5., these considerations include discussions on whether the law as it stands comply with principles considered fundamental for evaluating tax systems.

3.1. The OECD Model

As the challenges of the applicable law as it stands (*de lege lata)* will be analyzed from an international tax treaty perspective, it is noted that the OECD Model may not qualify as a legal source in a formal and traditional meaning as the OECD Model has not been ratified in national law.[88] Conversely, bilateral tax treaties are usually regarded as binding regulation either because a bilateral tax treaty, by law, has been ratified in the Contracting States or because there is a standing authority in the Contracting States that bilateral tax treaties have status as binding regulation.[89] Therefore, in principle, an analysis of the current international tax law would require that the challenges subject to analysis should be analyzed according to bilateral tax treaties. However, as the analysis is intended to be generally applicable and the fact that it

[87] *See e.g.,* Terry Hutchinson, *Doctrinal research in Research Methods in Law* (Dawn Watkins and Mandy Burton eds.), (Routledge, 2018), p. 29; Eva-Maria Svensson, *Boundary-Work in Legal Scholarship* in *Exploiting the Limit of Law: Swedish Feminism and the Challenge to Pessimism*, (Åsa Gunnarsson, Eva-Maria Svensson and Margaret Davies eds.) (Routledge, 2007), p. 39. As examples of research within international tax law that also included de lege ferenda considerations *see e.g.,* Jakob Bundgaard, *Hybrid Financial Instruments in International Tax Law,* (Kluwer Law, 2017), p. 17; Oddleif Torvik, *Transfer Pricing and Intangibles – US and OECD arm's length distribution of operating profits from IP value chains*, (IBFD, 2019).
[88] *See e.g.,* Peter Hongler, *Justice in International Tax Law,* (IBFD 2019), pp. 48 and 51.
[89] *See e.g.*, Peter J. Wattel and Otto C. R. Marres, *The Legal Status of the OECD Commentary and Static or Ambulatory Interpretation of Tax Treaties European Taxation*, 43 European Taxation 7, (2003), p. 222; Peter Hongler, *Justice in International Tax Law*. (IBFD 2019), p. 51.

is impossible to analyze the challenges according to all bilateral tax treaties;[90] the OECD Model will form the basis for the analysis.[91]

Arguably, analyzing the allocation of taxing rights according to the OECD Model is still in accordance with the dogmatic position, as the OECD Model has been the predominant model for negotiating bilateral tax treaties that are consequently based on largely similar policies and even language.[92] The OECD Model has not only been used as a reference in negotiations of bilateral tax treaties between OECD members, but also between OECD members and non-members and even between non-members as well as in the work of other worldwide or regional international organizations.[93] As an example of the latter, the OECD Model has been used as the basis for the original drafting and the subsequent revision of the UN Model, which reproduces a significant part of the provisions, and Commentaries of the OECD Model.[94] Similarly, the US Model is based on the OECD Model.[95] Thus, in practice, the challenges in international tax practice and case law will often be the interpretation of provisions identical or quite similar to the OECD Model.[96] This is also supported by the general reporters of the *Cahiers de fiscal*

[90] According to the OECD Explanatory Statement to the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting, p. 1, more than 3000 bilateral tax treaties exist.

[91] Similarly, Eivind Furuseth examines the OECD Model to answer the question of the relationship between domestic anti-avoidance rules and tax treaties in his dissertation, see Eivind Furuseth, *The Interpretation of Tax Treaties in Relation to Domestic GAARs* (IBFD 2018). *Chapter 3: Developing the Research Question*. *See also* Peter Hongler, *Justice in International Tax Law*. (IBFD 2019), p. 50. Hongler argues that soft law is used by, *e.g.,* the OECD and the UN to harmonize or at least coordinate domestic tax systems. Further, the author argues that soft law is a source of international tax law, as such, soft law "*evidently have an impact on the behavior of states, and the latter is indeed an important criterion for the definition of international law.*".

[92] *See e.g.,* Chang Hee Lee and Ji-Hyun Yoon, *Withholding tax in the era of BEPS, CIVs and the digital economy*, General Report in Cahiers de fiscal international, (103B, 2018), p. 23. It is stated that many countries adhere to the OECD Model to a certain extent, although the allocation of taxing rights over royalties typically differs. *See also*, Jacques Sasseville and Arvid A. Skaar, *Is There a Permanent Establishment?* General Report in Cahiers de fiscal international, (94a, 2009), p. 23; Phillip Baker, *Double Taxation Agreements and International Tax Law: A Manual on the OECD Model Double Taxation Convention (1977)*, (Sweet and Maxwell, 1991), p. 2.

[93] Marjaana Helminen, *The Dividend Concept in International Tax Law*, (Wolters Kluwer, 1999), pp. 12-13 and the same author in *The International Tax Law Concept of Dividend*, (Wolters Kluwer, 2010), p. 13.

[94] Para. 14 of the Commentaries to the Introduction of the OECD Model (2017) and Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary,* (Edward Elgar 2016), p. 3.

[95] Michael S. Kirsch, *The Limits of Administrative Guidance in the Interpretation of Tax Treaties*. 87 Texas Law Review 1063, (2009), pp. 1063 et seq.

[96] *See e.g.,* US: Tax Court (USTC), 2 May 1995, Taisei Fire and Marine Insurance Co. v. Commissioner, 104 TC 535, 548. Similarly, the Danish Supreme Court has, in several cases, referred to the OECD Model and Commentaries: DK: (HR) [Supreme Court], 18 Dec. 1992, I 323/1991 in which the court referred to the OECD Model (1992) as the reason for its decision in assessing the taxable income of a Danish branch of a US company. See also AU: High Court of Australia (HCA), 22 Aug. 1990, Thiel v. Federal Commissioner of Taxation in which the HCA dealt with the tax treatment of profits resulting from the sale of shares under the bilateral tax treaty concluded between Australia and Switzerland in 1980. To clarify the meaning of "enterprise" within the tax treaty, the judges in this case turned to the Commentary on Article 3 of the OECD Model (1977) and the Commentary on Article 7 of the OECD Model (1977). The importance of the OECD Model is further discussed in Reuven S. Avi-Yonah: *International Tax as International Law*, 57 Tax Law Review 4, (2004), pp. 483 et seq.; Ulf Linderfalk and Maria Hilling, *The Use of OECD Commentaries as Interpretative Aids –The Static/Ambulatory–Approaches Debate Considered from the Perspective of International*, 1 Law Nordic Tax Journal, (2015), p. 40; Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary,* (Edward Elgar 2016), p. 3. Garbarino

international on the topic *Interpretation of Double Taxation Conventions* where it was concluded that, in case law on the interpretation of tax treaties, reference was increasingly made to the OECD Model and its commentaries.[97]

The precursor of the OECD Model began back in 1921 when the League of Nations commenced its work leading to the first model convention in 1928 as well as the Model Conventions of Mexico in 1943 and the Model Convention of London in 1946. However, neither of these model conventions were fully and unanimously accepted.[98] An increased desire for harmonization in accordance with uniform principles, definitions, rules, methods, and common interpretation led the way to the work of the Fiscal Committee (later the Committee on Fiscal Affairs) – commenced in 1956 and finalized in 1963 with the *Draft Double Taxation Convention on Income and Capital* and adopted by the Council of the OECD later in 1963.[99]

Based on further studies, gained experience, and changes in the domestic tax systems and in the economy, inter alia with the rise of new sectors and business models as well as an increase in international fiscal relation, a new OECD Model and Commentaries was published in 1977.[100] Recognizing that updating the OECD Model and the Commentaries had become an ongoing process, the concept of an "ambulatory" model convention was adopted, i.e. periodic and timelier updates and amendments were considered necessary.[101] Accordingly, an updated version of the OECD Model was published in 1992 followed by multiple updates – the latest in 2017 that implemented a number of changes resulting from the BEPS Project.[102]

In connection to the 2017-version of the OECD Model, the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (hereinafter the Multilateral Instrument) was drafted to facilitate a swift implementation of the treaty-related measures resulting from the BEPS Project. The Multilateral Instrument already covers more than 90 jurisdictions and modifies the application of thousands of bilateral tax treaties.[103] Therefore, the OECD Model (2017) will be the starting point for the

argues that the OECD interpretative solutions or principles may circulate through either effective or hybrid juridical transplants activated by domestic courts.

[97] *See* Klaus Vogel and Rainer Prokisch, *Interpretation of Double Taxation Conventions,* General Report in *Cahiers de fiscal international*, (103A, 1993), pp. 64 and 65.

[98] *See* para. 4 of the Commentaries to the Introduction of the OECD Model (2017).

[99] *See* paras. 5 and 6 of the Commentaries to the Introduction of the OECD Model (2017); Peter Koerver Schmidt, *The Emergence of Denmark's Tax Treaty Network - A Historical View*, Nordic Tax Journal.1, (2018), pp. 49 et seq.

[100] Model Double Taxation Convention on Income and on Capital, Convention between (State A) and (State B) for the Avoidance of Double Taxation with Respect to Taxes on Income and on Capital, OECD, Paris, 1977.

[101] *See* para. 9 of the Commentaries to the Introduction of the OECD Model (2017).

[102] Since the publication of the first ambulatory version in 1992, the OECD Model was updated in 1994, 1995, 1997, 2000, 2002, 2005, 2008, 2010, 2014 and 2017.

[103] *See* Duff, David G. and Daniel Gutmann, *Restructuring the tax treaty network*, General Report in Cahiers de fiscal international, (105a, 2020), pp. 17-21.

analysis made in this dissertation, although it is recognized that not all bilateral tax treaties in force have been updated in accordance with the ambulatory approach adopted by the OECD. Yet, for the purpose of ensuring the practical relevance of the findings in this dissertation, common derogations from the Articles and terminology included in the OECD Model (2017) will also be analyzed when this is considered to be relevant.

As stated above, it is argued that the legal value of sources should be assessed based on the extent it affects the actions of economic actors engaging in, being impacted by, or otherwise influencing the international tax system. This has traditionally been assessed based on the expected value by a judge as this is argued to affect how states, businesses, and individuals behave.[104] However, as there is currently no international court interpreting the provisions of the OECD Model or bilateral tax treaties;[105] no "truly" international case law exists. Instead, the analysis will, as stated above, include national case law to some extent. Although the case law of one jurisdiction is not binding in other jurisdictions, the widespread use of the OECD Model as well as its definitions, policy and language, means that national court decisions from other jurisdictions can be an important source of guidance for national courts.[106] Further, as argued by Philip Baker: '*The OECD Model now forms such a generally accepted basis for the negotiation of treaties that courts should examine and follow the decisions of authorities in other states unless they are convinced that the other decision is incorrect'.*[107] Further, and somewhat similar is Alexander Rust who states that, to achieve the goal of common interpretation, courts should '***take into consideration and evaluate the merits*** *of relevant decisions made by comparable institutions in the other Contracting State and, if necessary, by those of third states*' (bold in original text).[108] Accordingly, national case law is considered relevant for interpreting the provisions of the OECD Model and common derogations from this Model.

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[104] *See also* Peter Hongler, *Justice in International Tax Law*. (IBFD 2019), pp. 49 and 50.

[105] Although there is currently no international court, generally, when interpreting the provisions of the OECD Model or bilateral tax treaties, it should be noted that in Case C-648/15 Republic of Austria v Federal Republic of Germany, the European Court of Justice interpreted the provisions on interest in the tax treaty between Germany and Austria. However, this bilateral tax treaty has a reference to the European Court of Justice as an arbitrator for tax treaty disputes. Today, such a reference is very uncommon and probably the only one of its kind. The case is discussed by Han Verhagen in *The European Court of Justice as Court of Arbitration for Disputes under DTA's (Case C-648/15, Austria v Federal Republic of Germany),* Kluwer International Tax Blog (13 September 2017).

[106] *See e.g.,* Jacques Sasseville and Arvid A. Skaar, *Is There a Permanent Establishment?* General Report in Cahiers de fiscal international, (94a, 2009), pp. 21-22; Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary,* (Edward Elgar 2016), p. 8; Klaus Vogel and Rainer Prokisch, *Interpretation of Double Taxation Conventions*, General report in Cahiers de fiscal international, (103A, 1993), p. 63. The general reporters summarize that all but one national reporter thinks it is probable that foreign decisions could be considered.

[107] Phillip Baker, *Double Taxation Agreements and International Tax Law: A Manual on the OECD Model Double Taxation Convention* (1977), (Sweet and Maxwell, 1991), p. 31.

[108] Alexander Rust, *Klaus Vogel on Double Taxation Convention* 4th edition (Ekkehart Reimer and Alexander Rust eds.,) (Wolters Kluwer Law and Business, 2015), para. 90 of the introduction. *See also* Eivind Furuseth, *The Interpretation of Tax Treaties in Relation to Domestic GAARs* (IBFD 2018). Section 5.5. Domestic cases law as a source of law.

While it could be argued that such an understanding of the term "legal sources" is arbitrary or artificial, as already stated above, it is argued that the international and borderless character of the facts subject to analysis will benefit from not having the perspective of one specific country. This is because the digitalization of the economy has significantly and rapidly improved the possibility for large as well as small and medium sized businesses to be multinationals. Accordingly, while conclusions based on an analysis of the OECD Model may not provide an ultimate answer as to what a domestic judge will conclude in a specific situation, it arguably provides findings relevant in this process.

3.2. Interpretation of Tax Treaties

Treaties, in general, shall be interpreted in accordance with the Vienna Convention on the Law of Treaties (hereinafter: the Vienna Convention) that entered into force 27 January 1980. It seems to be generally recognized that the provisions in the Vienna Convention on interpretation is codifying existing customary international law implying that its principles apply whether or not a country is a party to the Vienna Convention.[109] According to Article 31(1) of the Vienna Convention, a treaty must be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in its context and in light of its object and purpose. In addition to a treaty's text, including the preamble and annexes, the context for the purpose of the interpretation comprises any agreement or instrument relating to the treaty that was made between the parties in connection with the conclusion of the treaty pursuant to Article 31(2) of the Vienna Convention. It has previously been argued that there can also be a "context" between two conventions if they have the same text as they are – in principle – to be interpreted in the same way.[110] Furthermore, any subsequent agreement or practice in the application of a treaty that establishes the agreement of the parties regarding its interpretation and any relevant rules of international law applicable in the relations between the parties, shall in accordance with Article 31(3) of the Vienna Convention, be considered together with the context. Finally, it is stated in Article 31(4) of the Vienna Convention that a special meaning shall be given to a term if it is established that the parties so intended.

[109] *See e.g., Thiel v. Federal Commissioner of Taxation,* High Court of Australia, 22 August 1990. The court argued that the bilateral tax treaty between Australia and Switzerland "*is to be interpreted in accordance with the rules of interpretation recognised by international lawyers* […] *those rules have now been codified by the Vienna Convention on the Law of Treaties to which Australia, but not Switzerland, is a party. Nevertheless, because the interpretation provisions of the Vienna Convention reflect the customary rules for the interpretation of treaties, it is proper to have regard to the terms of the Convention in interpreting the Agreement, even though Switzerland is not a party to that Convention.*". *See also* Vogel, Klaus and Rainer Prokisch: *Interpretation of Double Taxation Conventions*, General report in Cahiers de fiscal international, (103A, 1993), pp. 66 and 67; Michael Lang and Florian Brugger, *The role of the OECD Commentary in tax treaty interpretation*, 23 Australian Tax Forum, (2008), p. 97; Frank Engelen, *Interpretation of Tax Treaties under International Law,* (IBFD 2004), p. 57.

[110] *See e.g.,* Klaus Vogel and Rainer Prokisch, *Interpretation of Double Taxation Conventions*, General report in Cahiers de fiscal international, (103A, 1993), p. 70.

Finally, Article 32 of the Vienna Convention contains supplementary means of interpretation, i.e., preparatory work of a treaty and the circumstances of its conclusion may be used to confirm the meaning resulting from the application of Article 31.

To summarize, the provisions in the Vienna Convention on interpretation arguably imply that interpreting a treaty first requires conducting a strict interpretation of the text of the treaty and its co-text and, subsequently, a purposive interpretation of the strict and broader context. It should be noted that the importance of the Vienna Convention when interpreting tax treaties has already been discussed in the international tax literature[111] and shall consequently not be pursued further in this dissertation. However, the standpoint taken in the analysis conducted in this dissertation is that the rules of interpretation laid down in the Vienna Convention are best characterized as rules of procedure (rather than technical rules) reflecting customary international law on the matter and, consequently, those rules should apply to all treaties, including tax treaties, in principle, independently of the Vienna Convention.[112]

Basically, tax treaties are instruments of international law for which the main purpose is to generally avoid double taxation. With respect to the OECD Model, its purpose is explicitly stated in the introduction of the OECD Model. More specifically, it is stated in para. 15.1 of the Introduction to the OECD Model (2017):

> ***'15.1.*** *Since a main objective of tax treaties is the avoidance of double taxation in order to reduce tax obstacles to cross-border services, trade and investment, the existence of risks of double taxation resulting from the interaction of the tax systems of the two States involved will be the primary tax policy concern.* […].*'*

An additional purpose of tax treaties is to counteract tax evasion and avoidance – a subject that has gained increased importance over the years.[113] In line with this development and because of the work undertaken as part of the BEPS Project, changes in the purpose of the OECD Model ware included. The changes that were included explicitly recognize that the purposes of the OECD Model are not limited to eliminating double taxation and that its provisions are not intended to create opportunities for non-

[111] *See e.g.,* Michael Lang and Florian Brugger, *The role of the OECD Commentary in tax treaty interpretation*, 23 Australian Tax Forum, (2008), pp. 97-100; Frank Engelen, *Interpretation of Tax Treaties under International Law,* (IBFD 2004), pp. 425-516; Linderfalk, Ulf and Maria Hilling: *The Use of OECD Commentaries as Interpretative Aids –The Static/Ambulatory–Approaches Debate Considered from the Perspective of International*, 1 Nordic Tax Journal, (2015), pp. 36-40; Peter J. Wattel and Otto C. R. Marres, *The Legal Status of the OECD Commentary and Static or Ambulatory Interpretation of Tax Treaties European Taxation*, 43 European Taxation 7, (2003), pp. 225-229.

[112] Similar standpoint is taken by Frank Engelen in *Interpretation of Tax Treaties under International Law,* IBFD Doctoral Series, Vol. 7, (2004) chapter 12 and Klaus Vogel and Rainer Prokisch, *Interpretation of Double Taxation Conventions*, General report in Cahiers de fiscal international, (103A, 1993), p. 67.

[113] Other matters dealt with under the OECD Model is exchange of information, assistance in the collection of taxes, and the elimination of discriminatory taxation under Articles 26, 27, and 24 of the OECD Model, respectively.

taxation or reduced taxation through tax evasion and avoidance.[114] More specifically, it was included in para. 7 of the commentaries to Article 1 of the OECD Model (2014) and now in para. 54 of the Commentaries to Article 1 of the OECD Model (2017) that:

> *The principal purpose of double taxation conventions is to promote, by eliminating international double taxation, exchanges of goods and services, and the movement of capital and persons. As confirmed in the preamble of the Convention, it is also a part of the purposes of tax conventions to prevent tax avoidance and evasion.*

The broadened purpose in the OECD Model is further supported by the fact that both the draft from 1963 and the OECD Model from 1977 both included a reference to the elimination of double taxation in the titles while it was decided, already in 1992, to use a shorter title that did not include this reference as it was recognized that the OECD Model also addresses other issues, e.g. the prevention of tax evasion and avoidance.[115] The title and preamble form part of the context of the OECD Model and constitute a general statement of the object and purpose of the OECD Model. Therefore, they should, in accordance with Article 31(2) of the Vienna Convention, play a role in the interpretation of the provisions of the OECD Model.[116]

3.2.1. The Interpretation Rule in Article 3(2) of the OECD Model

In addition to the general rules of interpretation as stated in Articles 31 and 32 of the Vienna Convention, Article 3(2) of the OECD Model (2017) contains an interpretative provision that provides for a third method of interpretation, i.e., the *renvoi method*. It states that any term not defined in the OECD Model shall have the meaning that it has at that time under the law of that State concerning the taxes to which the Convention applies. This applies unless the context otherwise requires or the competent authorities agree to a different meaning pursuant to the Mutual Agreement Procedure. Further, it is stated that the tax legislation of that state applies prior to the State's other legislation in determining the meaning of the term.[117] The interpretation by competent authorities was added in the 2017-version of the OECD Model and appears to have been developed post-delivery of the BEPS Package. In this respect, the lack of

[114] *See* para. 16.1 of the Commentaries to the Introduction of the OECD Model (2017).
[115] *See* para. 16 of the Commentaries to the Introduction of the OECD Model (2017).
[116] This is also recognized by the OECD in para. 16.2 of the Commentaries to the Introduction of the OECD Model (2017).
[117] It has been subject to debate in the international tax literature whether "that State" in Article 3(2) of the OECD Model (2017) refers to the domestic law of the domicile State, of the source State, or the State applying the Convention, i.e., lex fori. As the analysis in this study is of a general nature and generally conducted according to the OECD Model, it is not considered necessary to engage in this discussion. Instead, *see, e.g.,* Engelen, Frank: *Interpretation of Tax Treaties under International Law* (IBFD, 2004), section 10.10.4. The scope of the reference in Article 3(2) of the OECD Model to the domestic laws of the contracting States.

public consultation has been criticized,[118] as it may be problematic from a constitutional legality perspective to authorize the competent authority to specify the definite meaning of a term at a date subsequent to the conclusion of a tax treaty.[119]

Article 3(2) is considered the general provision with respect to the special rules on interpretation relative to the more *specialis*-definition e.g., stated in Articles 3(1), 10(3), 11(3) and 12(2) of the OECD Model. Hence, if an expression is defined in the OECD Model, a definition contained within the material domestic tax law of the Contracting States should not be applied as an autonomous interpretation must be made – unless the definition in the tax treaty makes explicit reference to domestic tax law.[120] Further, in this dissertation, it is argued that, before the renvoi-method can be applied, it must generally be determined whether the term in question is defined either in the tax treaty itself or in its co-text. This should be based on a literal and autonomous interpretation as well as a purposive and contextual interpretation of the strict and broader context.[121] Consequently, Article 3(2) is not considered to indicate that the principles of domestic tax law should generally be applied in the interpretation of tax treaties or to clarify ambiguous parts of the tax treaty. This is arguably also supported by the heading of the

[118] The addition of tax treaty interpretation by competent authorities has been problematized by Johann Hatting, *The Relevance of BEPS Material for Tax Treaty Interpretation*, 74 Bulletin for International Taxation 4/5, (2020), pp. 184 and 185.

[119] *See also* Klaus Vogel and Rainer Prokisch, *Interpretation of Double Taxation Conventions*, General report in Cahiers de fiscal international, (103A, 1993), p. 76. The authors criticize the somewhat similar provision in the US Model and state that the branch reporters of Argentina, Belgium and Germany expressed similar .

[120] Such reference to domestic tax law is further analyzed and discussed below in the articles *Allocation of the Taxing Right to Payments for Cloud Computing-as-a-Service* (Article 12(2) of the OECD Model – reference to domestic commercial law regarding intellectual property protection is made in the Commentaries) and *Blockchain Technology and the Allocation of Taxing Rights to Payments Related to Initial Coin Offerings* (Article 10(3) of the OECD Model– reference to return on investment treated similar to return on shares under domestic taxlaw is made in the definition of dividend).

[121] *See also* Klaus Vogel and Rainer Prokisch, *Interpretation of Double Taxation Conventions*, General report in *Cahiers de fiscal international*, (103A, 1993), pp. 81 – 82; Matthias Valta, *Article 12 Income from Royalties* in *Klaus Vogel on Double Taxation Convention* 4th edition (Ekkehart Reimer and Alexander Rust eds.,) (Wolters Kluwer Law and Business, 2015), pp. 1020-1021. However, Ana Paula Dourado, Georg Kofler, Ekkehart Reimer and Alexander Rust: *Article 3 General definitions* in *Klaus Vogel on Double Taxation Convention* 4th edition (Ekkehart Reimer and Alexander Rust eds.,) (Wolters Kluwer Law and Business, 2015), pp. 211-213. The authors argue against a systematic preference for interpretation from the context over interpretation by reference to national law. In Denmark, as an example, it has previously been argued by Niels Winther-Sørensen and Jakob Bundgaard that in interpreting the tax treaty concept "beneficial owner" (unknown in Danish domestic tax law), they would expect the Danish Supreme Court to refer to the – in many ways similar – concept of "rightful recipient" instead of applying an autonomous interpretation based on OECD Commentaries. See Jakob Bundgaard and Niels Winther-Sørensen, *Beneficial Ownership in International Financing Structures*, 50 Tax Notes International 7 (2008), p. 598. However, perhaps as a consequence of the benefits from harmonized interpretation of tax treaties combined with the increased internationalization of the economy, in the ongoing Danish cases on beneficial ownership, neither the Ministry of Taxation nor the representatives of the taxpayer have referred to the Danish term. Instead, reference has been made to the OECD Commentaries, see e.g., Eastern High Court case no. B-2152-10 (published as SKM2012.121.ØLR on 24 February 2012) and latest Eastern High Court case no. B-1980-12 and case no. B-2173-12.

provision "General Definitions" implying that the renvoi-method only concerns the definition of terms and not, e.g., a general way to clarify unclear legal concepts or traditions.[122]

3.3. Commentaries to the OECD Model

With respect to the autonomous interpretation of tax treaties – and what should be considered relevant co-text as well as strict and broader context – the exact legal status of the Commentaries on the OECD Model has, for many years, been subject to debate in the international tax literature.[123] For each Article in the OECD Model, there is a commentary intended to illustrate or interpret the Article.[124] The OECD Commentaries have been drafted and agreed upon by the experts appointed to the Committee on Fiscal Affairs by the governments of OECD member countries, and they are generally considered of importance in the development of international tax law.[125]

Domestic courts have taken different positions – ranging from applying the OECD Commentaries as a (broad and vague) interpretive authority in general,[126] to merely applying them as a technical guidance.[127] Hence, the interpretational importance of the commentaries may at times vary from this approach.[128]

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[122] *See also* Klaus Vogel and Rainer Prokisch, *Interpretation of Double Taxation Conventions*, General report in *Cahiers de fiscal international*, (103A, 1993), p. 79.

[123] *See e.g.,* Frank Engelen, *Interpretation of Tax Treaties under International Tax Law* (IBFD 2004); Ulf Linderfalk and Maria Hilling, *The Use of OECD Commentaries as Interpretative Aids –The Static/Ambulatory– Approaches Debate Considered from the Perspective of International*, 1 Law Nordic Tax Journal (2015), p. 40; Douma, Sjoerd and Frank Engelen: *The Legal Status of the OECD Commentaries*, (IBFD, 2008), especially the contribution therein by Niels Blokker, *Skating on Thin Ice? On the Law of International Organizations and the Legal Nature of the Commentaries on the OECD Model Tax Convention*, p. 24, sec. 3.

[124] *See also* Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary*, (Edward Elgar 2016), p. 5. Garbarino states that the 'interpretation' of the OECD Model by the OECD Commentary is "*meant to be the attribution by the Commentary of a meaning to the text of rule included in the Model. This attribution of a meaning leads to a so-called 'interpretive solution' which is advanced in the Commentary."*.

[125] *See e.g.,* paras 29 – 29.2 of the Commentaries to the Introduction of the OECD Model (2017). It is stated that, although the OECD Commentaries are not designed to be annexed to the bilateral tax treaties, they can nevertheless be of great assistance in the application and interpretation of the conventions and, in particular, in the settlement of disputes. Further, it is stated that tax authorities and businesses make great use of the OECD Commentaries in day-to-day work. See also Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary*, (Edward Elgar 2016), p. 2. Garbarino argues that the OECD Commentary or other OECD reports and documents constituting "soft tax law" but are often implemented in the domestic tax systems by legislative measures or administrative guidelines.

[126] *See e.g., Taisei Fire and Marine Ins. Co. v. Commissioner,* 104 T.C. 535, 535,548 (1995) and the Australian case *Thiel v. Federal Commissioner of Taxation* where the High Court of Australia dealt with the tax treatment of profits resulting from the sale of shares under the bilateral tax treaty concluded between Australia and Switzerland in 1980. To clarify the meaning of 'enterprise' within the tax treaty, the judges turned to Article 3 and Article 7 of the OECD Commentaries from 1977. Further, see *TfS 1993.7 HR*, in which the Danish Supreme Court referred to the OECD Model and Commentaries as the reason for the decision regarding assessing the taxable income of a Danish branch of a US company. Further, *see* Reuven S. Avi-Yonah, *International Tax as International Law,* 57 Tax Law Review 4, (2004), pp. 483-501; Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary*, (Edward Elgar 2016), pp. 28 and 29.

As stated, the legal justification for considering the OECD Commentaries to be of legal interpretive value is continuously subject to debate among international tax scholars.[129] However, there seems to be consensus thus far that the OECD Members have no legal obligation to accept the understanding included in the OECD Commentaries for the purpose of interpreting bilateral tax treaties – unless explicitly stated in the bilateral tax treaty. At the same time, there seems to be a consensus that the OECD Commentaries are legally relevant.[130] This is justified, inter alia, by the fact that they are drafted

[127] *See e.g.,* Craig West, *References to the OECD Commentaries in Tax Treaties: A Steady March from "Soft" Law to "Hard" Law?* 9 World Tax Journal 1, (2016), pp. 118-158; Win Wijnen, *The Convergence of the Interpretation of Tax Treaties, Asian Tax Authorities Symposium: Anti-Avoidance Rules in Taxation: Striking a Balance* (Kuala Lumpur 4-5 Sept. 2012. Also published as *Some Thoughts on Convergence and Tax Treaty Interpretation*, 67 Bulletin International Taxation 11, (2013). Wijnen considers the OECD Commentary as an important aid in the interpretation of treaties although the importance that courts attach to it differs from country to country. Specifically, Wijnen finds that courts in Canada, Australia, the United Kingdom and the Netherlands, considers the OECD Commentary as very important with persuasive value. Further, courts in Germany, Austria and India usually rely upon the OECD Commentary, whereas courts in France merely apply it as a technical guide and courts in Italy consider it to be of limited value; *see also* Eivind Furuseth, *The Interpretation of Tax Treaties Relation to Domestic GAARs* (IBFD 2018), section 5.2. OECD comm. Furuseth argues that also the Norwegian Supreme Court, in a number of cases has held that the OECD Commentaries are highly relevant for interpreting tax treaties. Finally, Andreas Bullen argues that domestic courts in Australia, Canada, Denmark, Germany, New Zealand, Norway, Sweden, the UK and the US, have recognized the interpretational relevance of the OECD Commentaries, *see* Andreas Bullen, *Arm's Length Transaction Structures: Recognizing and restructuring controlled transactions in transfer pricing* (IBFD 2011), Chapter 2 Methodology.

[128] *See* para 29.3 of the Introduction of the Commentaries to the Introduction of the OECD Model (2017). It is stated that based on published decisions of national courts collected by the Committee on Fiscal Affairs, the OECD Commentaries have been cited in the great majority of OECD member countries and, in many cases, extensively quoted, analyzed, and frequently played a key role in the judge's deliberations. Further, it is noted that courts are increasingly using the OECD Commentaries in reaching their decisions – a trend that the Committee expects to continue as the worldwide network of tax treaties continues to grow and as the commentaries gain even more widespread acceptance as an important interpretative reference.

[129] *See e.g.,* Frank Engelen, *Interpretation of Tax Treaties under International Tax Law* (IBFD 2004), p. 439 et seq. In particular, scholars are divided on the question as to how to fit the commentaries into the rules of interpretation established in the Vienna Convention, *see* Ulf Linderfalk and Maria Hilling, *The Use of OECD Commentaries as Interpretative Aids –The Static/Ambulatory–Approaches Debate Considered from the Perspective of International*, 1 Nordic Tax Journal, (2015), p. 40; Aitor Navarro, *International Tax Soft Law Instruments: The Futility of the Static v. Dynamic Interpretation Debate,* Intertax, vol. 48, no. 10, (2020), pp. 851-853; Sjoerd Douma and Frank Engelen, *The Legal Status of the OECD Commentaries*, (IBFD, 2008), especially the contribution therein by Niels Blokker, *Skating on Thin Ice? On the Law of International Organizations and the Legal Nature of the Commentaries on the OECD Model Tax Convention*, p. 24, sec. 3. For the OECD's own view on the status and importance of the Commentaries, *see* paras. 15 and 29. It has been criticized that OECD Commentaries comments on its own legal value, *see e.g.,* Maarten Ellis: *The Influence of the OECD Commentaries on Treaty Interpretation – A Response to Prof. Dr. Vogel,* 54 Bulletin for International Fiscal Documentation 12, (2000), p. 617-618.

[130] *See e.g.,* Marjaana Helminen, *The Dividend Concept in International Tax Law*, (Wolters Kluwer, 1999), p. 13 and the same author in *The International Tax Law Concept of Dividend*, (Wolters Kluwer, 2010), p. 13; Eivind Furuseth, *The Interpretation of Tax Treaties Relation to Domestic GAARs* (IBFD 2018), section 5.2. OECD comm.; Frank Engelen, *Interpretation of Tax Treaties under International Tax Law* (IBFD 2004), section 10.9.4.1. Engelen provides the example of a decision dated 2 September 1992, (BNB 1992/379), where the Hoge Raad stated that the Commentary on Article 10(5) of the 1963 Draft Double Taxation Convention did not just provide "some guidance" for the purpose of the interpretation of the corresponding Article 8(9) in the tax treaty between the Netherlands and Ireland (1969), as the Court of Appeal (Gerechtshof) of The Hague held, but is rather of "great importance", since according to its text as well as according to the Explanatory Memorandum send to Parliament, the Convention follows the OECD Model as much as possible. *See also*, Ulf Linderfalk and Maria Hilling, *The Use of OECD Commentaries as Interpretative Aids –The Static/Ambulatory–Approaches Debate Considered from the Perspective of International*, Law 1 Nordic Tax Journal, (2015), p. 40 with reference to Niels Blokker, *Skating on Thin Ice? On*

through international administrative cooperation between the OECD Members; thus, the OECD Commentaries are generally expressed in the common sense of the OECD Members and further in terms of the desire for harmonized interpretation.[131]

If an OECD Member is unable to concur in the interpretation provided in (part of) the OECD Commentary on an Article, the country may include observations on the commentaries. Hence, an observation does not indicate disagreement with the Article in the OECD Model itself but indicates how the observing country understands and will apply the Article.[132] If, on the other hand, an OECD Member includes a reservation, the country declares that it does not intend to include that (part of the) Article in future tax treaties.[133] The existence of an observation or a reservation should naturally be taken into account in practice, and consequently, the analysis and the result that are derived, may vary accordingly. In the absence of an observation or a reservation, the international law concepts of acquiescence (i.e., the silence or inaction of a state must, in certain circumstances, be interpreted as consent) and estoppel (i.e., a state is precluded from making assertions or from going back on is previous acceptance) could be considered.[134] Accordingly, with respect to the relevance of the OECD Commentaries when interpretating tax treaties, a Contracting State that has not reacted to a clear statement in the OECD Commentaries under the treaty negotiation, '*must be held to have acquiesced in the interpretation of those provisions adopted in the Commentaries*'.[135] Somewhat similar, the principle of estoppel implies that if the conclusion of a tax treaty based on the OECD Model leaves no serious doubt as to the Contacting States' implicit acceptance of the OECD Commentaries as interpretational guidance, the states may be estopped from later denying such acceptance.[136] Consequently, both principles are arguments in favor of the position that the OECD Commentaries are a relevant source of law with respect to the interpretation of tax treaties.

Even if one or both contracting states is a non-OECD member country that has or has not determined its position on the OECD Model and its Commentaries, these documents are arguably well-known for treaty negotiators and as stated by *Engelen*:

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the Law of International Organizations and the Legal Nature of the Commentaries on the OECD Model Tax Convention, both in *A Tax Globalist: Essays in honour of Maarten J. Ellis* (Douma and Engelen eds.), (IBFD 2005) p. 24; Sjoerd Douma and Frank Engelen: *The Legal Status of the OECD* Commentaries (IBFD 2008) in its entirety.

[131] *See* para 29 of the Introduction of the Commentaries to the Introduction of the OECD Model (2017).

[132] *See* para 30 of the Introduction of the Commentaries to the Introduction of the OECD Model (2017).

[133] *See* para 31 of the Introduction of the Commentaries to the Introduction of the OECD Model (2017).

[134] *See e.g.,* Eivind Furuseth, *The Interpretation of Tax Treaties in Relation to Domestic GAARs* (IBFD 2018), section 5.2. OECD Comm. and Frank Engelen in *The Legal Status of the OECD Commentaries,* (eds. Sjoerd Douma and Frank Engelen) (IBFD 2008), p. 53.

[135] *See e.g.,* Frank Engelen in *The Legal Status of the OECD Commentaries,* (eds. Sjoerd Douma, Frank Engelen) (IBFD 2008), p. 55.

[136] *See e.g.,* Frank Engelen in *The Legal Status of the OECD Commentaries,* (eds. Sjoerd Douma, Frank Engelen) (IBFD 2008), p. 56.

> *'the principle of good faith imposes on the parties an obligation to speak or act, in the course of the negotiation of the treaty, if they wish not to follow the Commentaries; if they do not do so, they must be held to have accepted the interpretation put forward in the Commentaries.'*[137]

While some legal scholars are more hesitant to recognize the importance of the OECD Model and its Commentaries among non-OECD members,[138] in the author's view, it may be assumed that Contracting States intended the commentaries to be relevant for the interpretation of a tax treaty based on the OECD Model if not otherwise indicated.[139]

In conclusion, while acknowledging the ongoing debate, the standpoint taken in this dissertation is that the OECD Commentaries should be considered binding by domestic courts as well as affecting the actions of economic actors within the international tax system (i.e., given legal interpretative value from a dogmatic position) *if* the OECD Commentaries should be considered:[140]

1. The *co-text* of a tax treaty, e.g., if both Contracting States refer to the OECD Commentaries as the interpretive solution or when the applicable tax treaty is equal to the OECD Model and both Contracting States have accepted the interpretation of the OECD;
2. The *strict context* of a tax treaty, e.g., if the interpretive solution established in the OECD Commentaries express international customary law or country practices accepted by both Contracting States; *or*
3. The *broad context* of a tax treaty, e.g., if there is proof that the OECD Commentaries have been actively used when negotiating the issue at stake in the tax treaty.[141] Further, in the absence of an observation or a reservation, the concepts of acquiescence and estoppel supports the position that the OECD Commentaries, in their capacity as well-known documents, are a part of the broad context of a tax treaty.

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[137] *See e.g.,* Frank Engelen in *The Legal Status of the OECD Commentaries,* (eds. Sjoerd Douma, Frank Engelen) (IBFD 2008), p. 70.

[138] *See e.g.,* Alexander Rust, *Introduction* in *Klaus Vogel on Double Taxation Convention* 4th edition (Ekkehart Reimer and Alexander Rust eds.,) (Wolters Kluwer Law and Business, 2015), p. 48. Rust argues that regarding non-OECD members the intention to adopt the meaning within the OECD Model can only be presumed if: '*(1) the text of the provision coincide with the OECD MC and (2) its context suggest no other interpretation. The weight to be given to the Comm. in such cases cannot be stated generally, but must be determined according to the circumstances of the individual cases.'*.

[139] A somewhat similar conclusion is made by Eivind Furuseth, *The Interpretation of Tax Treaties in Relation to Domestic GAARs* (IBFD 2018), section 5.2. OECD Comm. Furuseth argues that had the contracting states been of the opinion that the commentaries are not relevant for the interpretation of the tax treaty, '*they would have been expected to state this clearly during the treaty negotiation*'. *See also* Frank Engelen in *The Legal Status of the OECD Commentaries,* (eds. Sjoerd Douma, Frank Engelen) (IBFD 2008), pp. 70 and 71.

[140] See similarly Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary*, (Edward Elgar 2016), p. 28.

[141] *See also* Craig West, *References to the OECD Commentaries in Tax Treaties: A Steady March from "Soft" Law to "Hard" Law?* 9 World Tax Journal 1, (2016), where West states that: "*Since 2000, there has been increasing reference to OECD Commentaries with respect to the interpretation of tax treaties within either the treaty itself or with reference to a protocol to the treaty*.".

3.3.1. Ambulatory or Static Interpretation

Another not fully settled issue is whether the OECD Commentaries may be subject to ambulatory interpretation or one that is merely static, i.e., whether later versions of the commentaries can be of importance or solely the OECD Commentaries in force upon ratification of the tax treaty are relevant.[142]

In this respect, the Committee on Fiscal Affairs considers that existing tax treaties should, as much as possible, be interpreted in the spirit of the revised OECD Commentaries, even though the provisions of the existing tax treaties do not include the amended wording.[143] This, however, does not apply when the existing provisions are "different in substance" from the amended Articles – although, in this respect, the Committee on Fiscal Affairs notes that many amendments are intended to simply clarify and not change the meaning of the Articles or the commentaries of the OECD Model.[144]

The predominant opinion among international tax scholars seems to be that only static interpretation may be used.[145] The primary argument in favor of static interpretation is based on the fundamental principle of *pacta sunt servanda* meaning that "agreements must be kept". According to this principle, contracting states are bound by the original provisions of the tax treaty, preventing any (substantial) modifications of the treaty. Further, it has been argued that significant ambulatory interpretation of tax treaties would, in reality, imply that the power to (indirectly) change applicable tax treaties ratified in domestic tax law would be transferred to an international administrative body, i.e., the Committee on Fiscal Affairs.[146] Nonetheless, there are also arguments in favor of ambulatory interpretation, e.g., the flexibility to modify tax treaties to be consistent with economic and legal developments.

It is needless to say that later versions of the OECD Commentaries may always be given importance if this is determined in a tax treaty. Furthermore, and somewhat in accordance with the opinion of the Committee of Fiscal Affairs stated above, it seems to be accepted that later versions of the OECD Commentaries may also be given interpretational significance, if the amendments qualify as

[142] *See e.g.,* Peter J. Wattel and Otto C. R. Marres, *The Legal Status of the OECD Commentary and Static or Ambulatory Interpretation of Tax Treaties European Taxation,* 43 European Taxation 7, (2003), pp. 222-235; Klaus Vogel, *The Influence of the OECD Commentaries on Tax Treaty Interpretation*, 54 Bulletin for International Taxation 12, (2000) pp. 612–616; John F. Avery Jones, *The Effect of Changes in the OECD Commentaries after a Treaty is Concluded*, 56 Bulletin for International Taxation 3, (2002), pp. 102–104; David A. Ward, *The Role of Commentaries on the OECD Model in the Tax Treaty Interpretation Process*, 60 Bulletin for International Taxation 3, (2006), pp. 97–102.

[143] *See* paras 33 and 34 of the Introduction of the Commentaries to the Introduction of the OECD Model (2017).

[144] *See* paras 35-36.1 of the Introduction of the Commentaries to the Introduction of the OECD Model (2017). It is also stated that tax authorities in OECD member countries follow these principles and, accordingly, taxpayers may also find it useful to consult later versions of the OECD Commentaries in interpreting earlier tax treaties.

[145] *See e.g.,* Peter J. Wattel and Otto C. R. Marres, *The Legal Status of the OECD Commentary and Static or Ambulatory Interpretation of Tax Treaties European Taxation*, 43 European Taxation 7, (2003), p. 235.

[146] *See e.g.,* Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary*, (Edward Elgar 2016), p. 23 with reference to Stefano Guglielmi, Il caso Philip Morris nelle recenti modifiche al Commentario OCSE, (2006) Fiscalità Internazionale, pp. 148–57.

clarifications and not as actual *changes*.[147] An example of an interpretation with ambulatory features may be found in Canadian case law from 1998, where the Federal Court of Appeal in a case held that a treaty-posterior OECD Commentary can be of "some assistance" in the interpretation of an older treaty, specifically, the treaty between the United States and Canada of 1942:[148]

> *'The relevant commentaries on the OECD Convention were drafted after the 1942 Convention and therefore their relevance becomes somewhat suspect. In particular, they cannot be used to determine the intent of the drafters of the 1942 Convention. However, although the wording and arrangement of the provisions are significantly different in the two conventions, the 1942 Convention follows the same general principles as the OECD Model. The OECD Commentaries, therefore, can provide some assistance in discerning the "legal context" surrounding double taxation conventions at international law, and in particular in ascertaining when it is appropriate to allow a deduction for a notional expense.'*

A somewhat similar opinion was stated by the Tax Court of Canada in 2000 when the court held that the 1992-version of the commentary is a "useful extrinsic aid" in the interpretation of the tax treaty between Canada and the United States (1980).[149]

Acknowledging that domestic courts have taken different positions on this matter, implying that the approach may vary in practice.[150] However, as it is the allocation of taxing rights to income from the

[147] *See e.g.,* Danish case TfS 1993, 7 H, where the Danish Supreme Court applied an ambulatory interpretation with the argument that the amendment in the OECD Commentaries did not express an actual change but merely what was already the intention with the tax treaty between Denmark and the United States when concluded in 1948.
[148] *Cudd Pressure Control Inc. v. The Queen* case FCA-369-95.
[149] *Sumner v. The Queen* case TCC 98-1222-IT-G; 98-1410-IT-G. where it was stated that '*The Crown's position is supported by the OECD model convention and the commentary. That convention is the basis of all or virtually all of Canada's international network of tax treaties and is a useful extrinsic aid in interpreting such treaties.*' The two Canadian cases are discussed by Peter J. Wattel and Otto C. R. Marres: *The Legal Status of the OECD Commentary and Static or Ambulatory Interpretation of Tax Treaties European Taxation,* 43 European Taxation 7, (2003), p. 230. In addition to the examples of interpretation with ambulatory features in Canadian case law, the authors, also argue that an ambulatory interpretation was used in the earlier mentioned Australian High Court case *Thiel v. Federal Commissioner* 171 CLR 338, F.C. 90/034. The OECD Model and Commentary of 1977 was used as a "supplementary means of interpretation" within the meaning of Article 32 of the Vienna Convention to interpret the Australia–Switzerland tax treaty of 1980. Finally, the authors argue that an ambulatory interpretation was used by the German Federal Finance Court (Bundesfinanzhof) on several occasions, *e.g.,* BFH, 8 April 1997, I R 51/96, BFHE, Vol. 183, p. 110 (BStBl. II 1997, 697), BFH 13 August 1997, I R 65/95, BFHE, Vol. 184, p. 98 (BStBl. II 1998, 21) and BFH 18 July 2001, I R 26/01, BFHE, Vol. 196, p. 135 (IstR 2001, 653). Further, see e.g., John F. Avery Jones, *The Effect of Changes in the OECD Commentaries after a Treaty is Concluded*, 56 Bulletin for International Taxation 3, (2002), p. 114; David A. Ward, *The Role of Commentaries on the OECD Model in the Tax Treaty Interpretation Process*, 60 Bulletin for International Taxation 3, (2006), p. 102; Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary*, (Edward Elgar 2016), p. 24. Garbarino argues that static interpretation is generally used in strict interpretation while ambulatory interpretation is generally used with purposive interpretation – being an autonomous or contextual interpretation. Further, Garbarino argues that the rule of thumb is that, if static interpretation fails, ambulatory interpretation is to be used.
[150] *See e.g.,* the Spanish Supreme Court case Roj: STS 5265/2008 - ECLI: ES:TS:2008:5265 *Julio Iglesias* from 11 June 2008. The Supreme Court confirmed the application of Article 17(2) of the OECD Model (taxation at source of income for personal activities carried out by an entertainer but accrued by a different person controlled by the artist), despite the applicable tax treaty lacking a similar provision. Stated otherwise, the Supreme Court decided to follow an ambulatory interpretation of the tax treaty and incorporated the specific rules for companies that were implemented in the OECD Model (1992) into the applicable tax treaty (1972). Later, Supreme Court cases were argued to modify this rather extreme case of ambulatory interpretation of tax treaties*, see e.g.,* Roj: ATS

provision of digital products and services according to the OECD Model (2017) which is subject to analysis in this dissertation, it will primarily be the associated OECD Commentaries (2017) that will be employed as interpretational guidance.

3.4. OECD Reports

A last aspect to be considered in terms of interpreting tax treaties is the relevance of OECD reports conducted by the OECD Committee on Fiscal Affairs' Working Parties frequently working on controversial or insufficiently discussed issues arising under tax treaties.[151] During the years, these reports have often been the reason for changes in the OECD Model and its commentaries and it has previously been argued that in such scenario, these reports are a useful reference for understanding the changes and should be considered a legal source for interpretational guidance in this respect.[152]

In this dissertation, this is relevant e.g., with respect to the reports produced under the BEPS Project – in particular, the Final Report on Action 1 *Addressing the Tax Challenges of the Digital Economy* and the Final Report on Action 7 *Preventing the Artificial Avoidance of Permanent Establishment Status* both discussing some of the legal questions subject to analysis in this dissertation. However, as already stated, it should be noted that the Final Report on Action 1 did not include recommendations for updating the OECD Model, as the Technical Group could not achieve common consensus among the members – instead, it was concluded that the OECD Committee on Fiscal Affairs' Working Parties would continue the work and monitor the development of the digitalization of the economy.[153] Accordingly, the Final Report on Action 1 (and the reports subsequently produced) cannot be relied upon in addressing the legal questions subject to analysis. Instead, these reports are considered beneficial for identifying and understanding highly digitalized businesses faced with or creating these legal questions.

On the contrary, the Final Report on Action 7 arguably reasoned the changes on the definition of a PE implemented in Article 5 of the 2017-version of the OECD Model and as also implemented in many tax

12845/2018 - ECLI: ES:TS:2018:12845A from 28 November 2018. The cases and the "Spanish doctrine of ambulatory interpretation" are further discussed by Barba de Alba, Antonio and Diego Arribas, *Spanish Supreme Court to Settle on Dynamic Interpretation of Tax Treaties*, Kluwer International Tax Blog, (4 February 2019) and Enrique Sánchez de Castro Martín-Luengo, *Spanish Supreme Court Limits the Use of Dynamic Interpretation of Tax Treaties*, Bulletin for International Taxation, vol. 75, no. 1, (2021), pp. 2 et seq. The authors discuss two new judgments of the Spanish Tribunal Supremo (Supreme Court) of 3 March and 23 September 2020.

[151] *See also* Michael Lang, *Introduction to the Law of Double Taxation Conventions*, (IBFD, 2010), para. 105 and Eivind Furuseth, *The Interpretation of Tax Treaties in Relation to Domestic GAARs* (IBFD 2018), section 5.3, OECD reports and other reports.

[152] *See* Michael Lang, *Introduction to the Law of Double Taxation Conventions*, (IBFD, 2010), para. 106 and Eivind Furuseth, *The Interpretation of Tax Treaties in Relation to Domestic GAARs* (IBFD 2018), section 5.3, OECD reports and other reports.

[153] *See* OECD: *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), pp. 117, 138 and 148.

treaties through Articles 12 to 15 of the Multilateral Instrument.[154] According to the Explanatory Statement to the Multilateral Instrument '*[t]he commentary that was developed during the course of the BEPS project and reflected in the Final BEPS Package has particular relevance'* to interpret the substance of BEPS treaty-related measures.[155] Accordingly, in this dissertation, issues discussed in the process of preparing the Final Report on Action 7 are considered of relevance when interpreting and analyzing the amendments.

3.5. Consideration de Lege Ferenda

In accordance with the legal dogmatic approach, this dissertation will include considerations *de lege ferenda* which will include discussions on whether the law as it stands complies with the principles of neutrality and the ability to pay tax as well as discussions of and recommendations for improving legal certainty. While it is recognized that the selection of principles, to a certain extent, is arbitrary and based on the author's perception of their importance, the selection of these fundamental principles is also justified by the circumstance that they are generally considered fundamental for evaluating tax systems, including in respect of digitalized business models.[156]

It has previously been emphasized in international tax literature that these fundamental principles are neither widely understood nor do they enjoy universal agreement.[157] However, for the purpose of this dissertation, legal certainty is understood to require the law to be unambiguous, easily accessible, comprehensible, prospective (i.e., not retrospective), and stable so that taxpayers can anticipate the tax

[154] *See also* Johann Hatting, *The Relevance of BEPS Material for Tax Treaty Interpretation,* 74 Bulletin for International Taxation 4/5, (2020), p. 186.

[155] *See Explanatory Statement to the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting,* para. 12. *See also* Johann Hatting, *The Relevance of BEPS Material for Tax Treaty Interpretation,* 74 Bulletin for International Taxation 4/5, (2020), p. 194. Hatting argues that, even in unchanged tax treaties (*i.e.,* neither changed through the Multilateral Instrument nor bilateral negotiation), the advisory community could be expected to consider BEPS material while the courts may be more hesitant to overtly refer to BEPS materials when interpreting such unchanged tax treaties although Hatting finds that, over time, even the courts may not be immune to influence.

[156] *See e.g.* OECD: *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), pp. 20, 21, 25 and 26. These fundamental principles of a fair tax system should be understood and assessed in light of what has been condensed into three goals of taxation: *i)* raising revenue for governmental spending; *ii)* redistributing income and wealth to reduce the unequal distribution, and *iii)* encouraging or discouraging certain behavior. *See* Peter Koerver Schmidt, *The Role of the Anti-Tax Avoidance Directive in Restoring Fairness and Ensuring Sustainability of the International Tax Framework – A Legal Assessment* in *Tax Sustainability in an EU and International Context - Part Four: BEPS and Sustainability Goals* (eds., Cécile Brokelind & Servaas van Thiel) (IBFD, 2020); Reuven S. Avi-Yonah, *The Three Goals of Taxation*, 60 Tax Law Review 1, (2016) pp. 1 seq.

[157] *See also* Peter Hongler, *Justice in International Tax Law* (IBFD 2019), p. 385. Hongler argues that, while the selected principles have been important as policy guidelines, their validity has rarely been questioned. However, for a critical analysis, see Graetz, Michael J.: *The David R. Tillinghast Lecture Taxing International Income: Inadequate Principles, Outdated Concepts, and Unsatisfactory Policies*, 54 Tax Law Review, (2001), pp. 261 et seq.

consequences in advance of a transaction.[158] Hence, optimally, a taxpayer should, before any action is taken, be able to determine when, where, and how the tax of contemplated actions is to be accounted, i.e., taxpayers have a right to *legitimate expectations*.[159] It has further been argued that an inherent element of the principle of legal certainty is that taxation should be governed by the rule of law as opposed to arbitrary decisions by individual government officials. Arguably, if the international tax system is not governed by the rule of law, this will prevent the taxpayer from predicting the tax consequences in advance and hence violate the principle of legal certainty.[160] Lastly, it is recognized that all uncertainty in international tax law cannot be eliminated, however, it is argued in this dissertation that there should always be a process to minimize such uncertainty as the contrary will arguably overly distort the fundamental rights of taxpayers and the economy.[161]

The principle of neutrality implies that decisions should be motivated by economic rather than tax considerations. This principle has, in an international tax context, traditionally been considered within the two dimensions of capital import neutrality and capital export neutrality, also referred to as CIN and CEN, respectively. As formulated by Richard Musgrave: '*export neutrality means that the investor should pay the same total* [domestic plus foreign] *tax, whether he receives a given investment income from foreign or from domestic sources* [...] *Import neutrality means that capital funds originating in various countries should compete at equal terms in the capital market of any country.*"[162] However, in

[158] *See e.g.,* Tony Pagone, *Tax Uncertainty*, 33 Melbourne University Law Review 3, (2009), p. 887 citing Joseph, Sarah and Melissa Castan: *Federal Constitutional Law: A Contemporary View*, (Law Book Co. 2006).

[159] *See e.g.,* Dennis Weber and Thidaporn Sirithaporn: *Legal Certainty, Legitimate Expectations, Legislative Drafting, Harmonization and Legal Enforcement* in *EU Tax Law in Principles of Law: Function, Status and Impact in EU Tax Law* (Cécile Brokelind ed.) (IBFD 2014), pp. 235 et seq. Weber and Sirithaporn contend that the formal element of legal certainty requires laws to be predictable as to their legal consequences in order to avoid unnecessary arbitrariness. *See also* Joseph Raz: *The Rule of Law and Its Virtue*, 93 Law Quarterly Review 2, (1977), pp. 198 et seq.; Peter Koerver Schmidt, *The Role of the Anti-Tax Avoidance Directive in Restoring Fairness and Ensuring Sustainability of the International Tax Framework – A Legal Assessment* in *Tax Sustainability in an EU and International Context - Part Four: BEPS and Sustainability Goals* (eds., Cécile Brokelind & Servaas van Thiel) (IBFD 2020).

[160] *See e.g.,* Peter Koerver Schmidt, *The Role of the Anti-Tax Avoidance Directive in Restoring Fairness and Ensuring Sustainability of the International Tax Framework – A Legal Assessment* in *Tax Sustainability in an EU and International Context - Part Four: BEPS and Sustainability Goals* (eds., Cécile Brokelind & Servaas van Thiel) (IBFD 2020). Schmidt argues that to consider the concept of rule of law as a cluster of legal norms/principles, to some extent, conflicts and, accordingly, the rule of law should be viewed as the ideal of the values that a legal system should possess. See also Dennis Weber and Thidaporn Sirithaporn: *Legal Certainty, Legitimate Expectations, Legislative Drafting, Harmonization and Legal Enforcement* in *EU Tax Law in Principles of Law: Function, Status and Impact in EU Tax Law* (Cécile Brokelind ed.) (IBFD 2014), pp. 235-273. Weber and Sirithaporn discuss that the substantive element of legal certainty requires that legal decision-making should be logically acceptable by the community.

[161] *See also*, Dennis Weber and Thidaporn Sirithaporn: *Legal Certainty, Legitimate Expectations, Legislative Drafting, Harmonization and Legal Enforcement* in *EU Tax Law in Principles of Law: Function, Status and Impact in EU Tax Law* (Cécile Brokelind ed.) (IBFD 2014), pp. 235 et seq.

[162] Richard Musgrave has in the international tax literature, been credited as being the first to distinguish between capital export neutrality and capital import neutrality, see e.g. Klaus Vogel, *Worldwide vs. source taxation of income – A review and re-evaluation of arguments (Part II)*, Intertax 10 (1988), at p. 313 and Dale Pinto *The Need*

the context of the digitalization of the economy and for the purpose of this dissertation, the principle of neutrality has been considered as neutrality between traditional and more digitalized business models.[163]

This dimension of the principle of neutrality and the principle of legal certainty are both included in what has been referred to as the Ottawa Principles, i.e., a set of broad taxation principles that should apply to electronic commerce.[164] The Ottawa Principles were part of a report composed by the Committee on Fiscal Affairs that was presented to ministers at the OECD Ministerial Conference, "*A Borderless World: Realising the Potential of Electronic Commerce*" on 8 October 1998. The ministers welcomed the report and endorsed its proposals on how to proceed with the work as outlined in the report. Years later, the importance of the Ottawa Principles was reaffirmed in the Final Report on Action 1 in the BEPS Project.[165] On this basis, it is argued that these fundamental principles are relevant when evaluating tax systems, especially in respect of digitalized business models.

Moreover, although not explicitly mentioned as one of the Ottawa Principles, the ability to pay tax, meaning that the tax burden should be proportionate to the capacity of the taxpayer,[166] could be argued to be included in what was referred to as "effectiveness and fairness" in the Ottawa Principles.[167]

Furthermore, as discussed in the analysis of this dissertation, the ability to pay principle is considered the most appropriate reason and measure for income taxation. In this respect, it is recognized that it does not enjoy universal support. However, it has previously been argued that this principle – as a tax equity standard, based on considerations of social solidarity and social redistribution – is widely endorsed in contemporary doctrine on justifying taxation.[168] Furthermore, in terms of the ongoing discussions on

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to Reconceptualize the Permanent Establishment Threshold, Bulletin, July (2006), p. 268 both citing Richard Musgrave *Criteria for Foreign Tax Credit* in Taxation and Operations Abroad, Symposium (1960), at pp. 84-85.

[163] *See e.g.,* OECD: *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), p. 20.

[164] *See* Committee on Fiscal Affairs, *Electronic Commerce: Taxation Framework Conditions,* presented to Ministers at the OECD Ministerial Conference, *A Borderless World: Realising the Potential of Electronic Commerce* (8 October 1998).

[165] *See* OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: Final Report* in OECD/G20 Base Erosion and Profit Shifting Project, (OECD Publishing 2015), pp. 134 and 135.

[166] For a thorough analysis on the ability to pay principle, refer to J. Clifton Fleming, R. J. Peroni and S. E. Shay, *Fairness in International Taxation: The Ability-to-Pay Case for Taxing Worldwide Income,* 5 Florida Tax Review 4, (2001) pp. 301 et seq. with references and M. Slade Kendrick, *Ability-to-Pay Theory of Taxation*, 29 American Economic Review 1, (1939), p. 92 et seq. Further, reference may be had to Joachim Englisch, *Ability to Pay in Principles of Law: Function, Status and Impact in EU Tax Law* (C. Brokelind ed., IBFD 2014).

[167] This principle inter alia require taxation to produce the right amount of tax at the right time, see Committee on Fiscal Affairs *Electronic Commerce: Taxation Framework Conditions,* presented to Ministers at the OECD Ministerial Conference, *A Borderless World: Realising the Potential of Electronic Commerce* on 8 October 1998, p. 4.

[168] *See e.g.,* Gijsbert W. J. Bruins, Luigi Einaudi, Edwin R. A. Seligman and Josiah Stamp, *Report on Double Taxation,* submitted to the Financial Committee Economic and Financial, Document E.F.S.73. F.19 (5 April 1923), pp. 13 and 18, Wolfgang Schön, *International Tax Coordination for a Second-Best World (Part I)*, 1 World Tax Journal 1, (2009), pp. 71-72; Filip Debelva, *Fairness and International Taxation: Star-Crossed Lovers?* 10 World Tax Journal. 4, p. 570; Xiaorong Li, *A Potential Legal Rationale for Taxing Rights of Market Jurisdictions*,

updating the international tax system, it is argued in this dissertation that the justification for *why* market states should be allocated more taxing rights should be based on a proportion of the taxpayers' ability to pay actually being created in this market state. Accordingly, if a business has economic allegiance in a market state – understood as a specific and identifiable stage in its production of wealth (i.e., a place of origin) – this market state should be allocated a corresponding taxing right – without risking international double taxation or double non-taxation of the taxpayer.[169]

13 World Tax Journal 1, (2021), p. 38; Maarten F. de Wilde, *The obligation to contribute to the financing of public expenditure* in *Sharing the Pie: Taxing Multinationals in a Global Market* (IBFD 2017), section 2.2.2.1.

[169] *See also* Klaus Vogel, *The Justification for Taxation: A Forgotten Question?* 33 American Journal of Jurisprudence 2, (1988), p. 19 et seq,; Filip Debelva, *Fairness and International Taxation: Star-Crossed Lovers?* 10 World Tax Journal. 4, p. 581.; Wolfgang Schön, *International Tax Coordination for a Second-Best World (Part I)*, 1 World Tax Journal 1, (2009), p. 71. Schön argues that it is the traditional legal wisdom that the principles of how to allocate taxing rights internationally somehow should reflect the justification to tax in a domestic setting including the ability to pay principle.

4. Structure of the Dissertation

The study conducted in this dissertation is based on five articles published or accepted for publication in international journals that kindly accepted that the published articles also form part of this dissertation. Naturally, there is a "golden thread" between the articles that are all contributing to answering the research questions as presented above in section 2. However, despite the articles being part of one dissertation, they are not "linked" in a way similar to chapters in a monography – they also stand alone and include separate analyses and perspectives. In this respect, it should be noted that only data published at the date the individual articles were accepted for publication have been included in the articles.

In four of the articles the subject for analysis is the allocation of the taxing rights to income generated from the provision of various digital products and services under the current international tax regime. The technologies subject to analysis in these articles should be considered as examples of the challenges related to determining the allocation of taxing rights to income from new digital technologies. In each article, a general understanding of the technologies is provided as this is considered a necessary foundation for the subsequent legal analysis. However, the technological aspects of the technologies typically imply a highly technical frame of reference beyond what is necessary for the purpose of this dissertation within international tax law. Therefore, the analysis will be focused on describing the most characteristic features of the technologies as these are typically applied in business models deployed by multinational enterprises. Further, the most substantial part of each of these four articles is an analysis of the allocation of taxing rights according to the OECD Model (2017). More specifically, this part of the articles contains an analysis of the applicable law as it stands (*de lege lata)* with respect to the classification of the relevant payments and/or whether the provision of the digital technologies or the provision of services deploying digital technologies create a PE of the provider. Supplementary, to offer wider and new academic perspectives, considerations *de lege ferenda* on the identified challenges and uncertainties will be provided in these four articles. These considerations will focus on the principles of neutrality between more traditional and highly digitalized business models as well as the principle of ability to pay and, finally, on providing recommendations for improving legal certainty.

Considering the current debate within international tax law and based on the findings in the preceding four articles, the fifth article is intended to provide a legal rationale for why market states should be allocated more taxing rights to income generated by businesses from the provision of digital products and services. Hence, in this article the underlying principles of how the taxing rights to generated cross-border business income are allocated between contracting states and how this allocation of taxing rights is perceived to be challenged by the digitalization of the economy. Further, to contribute to the ongoing debate on updating the current international tax regime, it is analyzed and discussed whether some of the most significant measures that have recently been discussed may be justified based on a modernized

interpretation of the underlying principles for allocating taxing rights between contracting states to take into account the digitalization and inherent dematerialization of the economy.

Finally, this dissertation contains a conclusion that summarizes the findings in each article, with the purpose of answering the research questions on how the taxing rights to income from the provision of digital products and services are allocated under the OECD Model (2017). It also recapitulates why more taxing rights to income from the provision of digital products and services should be allocated to market states and whether the recently discussed proposals adequately adhere to such justification.

Table 1 lists the five articles, provide information on publication, and short summary of the main focus in each article.

Title	Information	Focus
Allocation of the Right to Tax Income from Digital Intermediary Platforms – Challenges and Possibilities for Taxation in the Jurisdiction of the User	Nordic Journal of Commercial Law, no. 1, (2018), pp. 148-171 Co-author: Peter Koerver Schmidt Accepted: 2 November 2018 Published: 22 November 2018	To analyze the possibilities for user-jurisdictions to tax the value generated by the provider of digital intermediary platforms. This includes the remuneration received by a foreign enterprise and the users' provision of personal data in exchange for access to the platform as well as whether the interaction between the users and the platform provider could be considered a barter transaction for tax purposes. Further, to discuss whether the proposal for a council directive laying down rules relating to the corporate taxation of a significant digital presence put forward by the European Commission could serve as an adequate tax policy options to allocate a taxing right to the user-jurisdiction.
Allocation of the Taxing Right to Payments for Cloud Computing-as-a-Service	World Tax Journal, vol. 11, no 3, (2019), pp. 379-423 Accepted: 28 June 2019 Published: 6 August 2019	To analyze the options available to user jurisdictions for taxing the value generated by cloud computing service providers through the provision of Infrastructure-as-a-Service, Platform-as-a-Service and Software-as-a-Service, deployed as both public and private cloud computing. This includes an analysis of mixed contracts and the appropriate approach for determining whether to apply unified taxation or apply a separate tax treatment for individual parts of the consideration paid. Further, the distinction between business income and royalties and whether the provision of such services constitute a PE according to the OECD Model (2017). Further, to discuss value creation and the fundamental principles of legal certainty, neutrality, and the ability to pay tax as well as whether policymakers should amend the currently applicable international tax rules or assess the full effects of the changes made in the OECD Model (2017) before introducing new measures to tackle the challenges experienced.

Blockchain Technology and the Allocation of Taxing Rights to Payments Related to Initial Coin Offerings	Intertax, vol. 48, no. 10, (2020), pp. 879-903 Accepted: 24 March 2020 Published: September 2020	To analyze the main principles of blockchain in its current stage and how the technology may create value in certain use cases, e.g., ICOs being one of the most common use cases benefitting from the main principles of blockchain technology. Further, to analyze the classification of capital raised through ICOs and the investors' return on their invested capital according to the OECD Model (2017). Focus is on capital raised through the issuing of utility tokens, debt tokens, and equity tokens as well as the return on investments in such tokens. Furthermore, to discuss the fundamental principle of legal certainty and neutrality as well as recommendations for policymakers to provide guidance to take into account the decentralized and inclusive features of blockchain technology.
Taxable Presence and Highly Digitalized Business Models	Tax Notes International, vol. 97, no. 9, (2020), pp. 977-1007 Co. Author: Jakob Bundgaard Accepted: 13 November 2019 Published: 2 March 2020	To provide a thorough understanding of the widespread perception that the currently applicable international tax rules on nexus are outdated with regards to highly digitalized business models as these new business models arguably no longer require physical presence to operate in a certain market. This perception is explored through an in-depth analysis of current international tax treaty law with respect to whether such highly digitalized businesses models will in fact create a taxable presence in the form of a PE in the market jurisdictions in which they provide services. The concept of PE, as it is defined in the OECD Model (2017), is confronted with the following generic business models: cloud computing, social network, online retailer, intermediary platform, and search engine – all of which are typically referred to as highly digitalized business models.
The Ability to Pay and Economic Allegiance: Justifying Additional Allocation of Taxing Rights to Market States	Intertax, vol. 49, 2021, no. 8 & 9 (forthcoming) Accepted: 26 April 2021 To be published: August 2021	To analyze and discuss a legal rationale for why market states should be allocated more taxing rights. This is based on the historical background and the reasoning of the foundation and conceptual basis for the current international tax principles for allocating taxing rights under the OECD Model (2017) as well as how these may be challenged by the digitalization of the economy. Further, to assess whether the most significant measures recently discussed as a response to the digitalization of the economy may be justified according to the underlying international principles for allocating taxing rights. More specifically, focus is on the new nexus under the Pillar One Blueprint presented by the Inclusive Framework as well as the inclusion of software in Article 12 on royalties and the implementation of a new Article 12B providing a shared taxing right for automated digital services in the UN Model.

PART II: The Five Articles

Allocation of the Right to Tax Income from Digital Intermediary Platforms – Challenges and Possibilities for Taxation in the Jurisdiction of the User

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ABSTRACT

The authors analyse the current (lack of) possibilities for user-jurisdictions to tax the value generated by the increased use of digital intermediary platforms. Focus is on analysing the possibilities for user-jurisdictions to tax the remuneration received by a foreign enterprise owning a digital intermediary platform and on discussing whether the users' provision of personal data in exchange for access to the platform could be considered a barter transaction for tax purposes in the user-jurisdiction. Among other things, it is concluded that user-jurisdictions, pursuant to current international tax treaties, will normally be precluded from taxing the income of foreign platform enterprises, as the platform enterprises are often able to deliver their digital services remotely. Against this background, a number of tax policy challenges and options of relevance for taxing platform enterprises are discussed, in particular the proposed directive on significant digital presence recently put forward by the European Commission. It is concluded that the proposal may prove to be an adequate step towards taxation in the user-jurisdictions, even though the proposal needs further work in order to become sufficiently clear and targeted and the scope may be limited.

1. INTERNATIONAL TAX LAW AND THE DIGITAL CHALLENGE

In recent years, it has become clear that the increasing digitalisation of the economy poses challenges with respect to international taxation, as current international tax law and its underlying principles have not kept pace with the changes in global business practices, including practices based on the intensified use of information and communications technology.[1] Accordingly, as the current international tax framework was originally designed to deal with "brick and mortar" businesses, it may be argued that the framework is not sufficiently equipped to address modern, digitalised business practices, where physical presence in the market jurisdictions is no longer necessary.[2]

Policymakers have discussed these challenges at least since the late 1990s,[3] but the attention has dramatically increased in later years. In particular, the OECD/G20 project aimed at mitigating base erosion and

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[1] Marcel Olbert and Christoph Spengel, 'International Taxation in the Digital Economy: Challenge Accepted?' (2017) 9 World Tax Journal 1.

[2] Georg Kofler et al., 'Taxation of the Digital Economy: Quick Fixes or Long-Term Solution?' (2017) 57 European Taxation 12. See also the same authors, 'Taxation of the Digital Economy; A Pragmatic Approach to Short Term Measures', (2018) 58 European Taxation 4.

[3] See e.g. OECD, *Taxation and Electronic Commerce – Implementing the Ottawa Taxation Framework Conditions* (OECD Publishing 2001). For more on the earlier policy initiatives see e.g. Peter Koerver Schmidt, 'Den digitale økonomi som skatteretlig udfordring' in Børge Dahl et al. (eds), *Liber Amicorum Peter Møgelvang Hansen* (Extuto 2016).

profit shifting (BEPS) has attracted interest.[4] The project focuses on aggressive tax planning carried out by multinational enterprises,[5] and one of the deliveries consisted of a report specifically dealing with the tax challenges of the digital economy.[6] Among other things, the report highlighted some key features of the digital economy that was seen as particularly relevant from a tax law perspective. These features for example included increased mobility, reliance on data, network effects and the spread of multisided business models. As such, the features of the digital economy were not considered to generate unique BEPS risks, but it was acknowledged that these features could exacerbate the risks.[7]

The report also addressed a number of broader tax challenges raised by the digital economy, and a number of policy options were considered, however, without reaching an agreement on whether any of the options should be adopted.[8] After the release of the report, the OECD/G20 has continued its work, and in March 2018 a new interim report was made publicly available.[9] The new report further elaborates on the tax issues raised by digitalisation and concludes that, overall, there is support for undertaking a coherent and concurrent review of two key aspects of the existing tax framework, namely nexus rules and profit allocation rules.[10]

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[4] OECD, *Addressing Base Erosion and Profit Shifting* (OECD Publishing 2013) and OECD, *Action Plan on Base Erosion and Profit Shifting* (OECD Publishing 2013).

[5] For more on the background of the BEPS project see Yariv Brauner, 'BEPS: An Interim Evaluation' (2014) 6 World Tax Journal 1.

[6] OECD/G20, *Addressing the Tax Challenges of the Digital Economy – Action 1 Final Report* (OECD Publishing 2015).

[7] Ibid p. 11-12.

[8] Ibid p. 99 and p. 136-139.

[9] OECD/G20, *Tax Challenges Arising from Digitalisation – Interim Report* (OECD Publishing 2018). Also academia has showed a massive interest in the tax challenges raised by the digital economy. Hence, several contributions in the academic literature have recently addressed the broader issues. Besides the contributions already mentioned see for example Ina Kerschner and Maryte Somare (eds.), *Taxation in a Global Digital Economy* (Linde Verlag 2017), Yariv Brauner and Pasquale Pistone, 'Adapting Current International Taxation to the New Business Models: Two Proposals for the European Union' (2017) 71 Bulletin for International Taxation 12, Joachim Englisch, 'BEPS Action 1: Digital Economy – EU Law Implications' [2015] British Tax Review 280, Maarten de Wilde, 'Tax Jurisdiction in a Digitalizing Economy; Why Online Profits Are So Hard to Pin Down' (2015) 43 Intertax 12, Miranda Stewart, 'Abuse and Economic Substance in a Digital BEPS World' (2015) 69 Bulletin for International Taxation 6/7, Aleksandra Bal and Carlos Gutiérrez, 'Taxation of the Digital Economy' in Madalina Cotrut (ed), *International Tax Structures in the BEPS Era: An Analysis of Anti-Abuse Measures* (IBFD 2015), Walter Hellerstein 'Jurisdiction to Tax in the Digital Economy: Permanent and Other Establishments' (2014) 68 Bulletin for International Taxation 6/7, and Arthur Cockfield et al., *Taxing Global Digital Commerce* (Wolters Kluwer 2013).

[10] OECD/G20 (2018) [footnote 9], p. 212-213. It is contemplated that a final report should be published in 2020.

In light of the topic of this article, it is particularly interesting that the interim report further elaborates on the significance of user-participation in the value creation process of certain highly digitalised business models, including business models relying on digital intermediary platforms. Thus, even though consensus was not reached, the interim report reflects that a number of countries are of the opinion that the current international tax regime fails to recognise the contribution and importance of user participation in the value creation process of these highly digitalised businesses, as the existing nexus rules and profit allocation rules do not result in an appropriate alignment between the location in which profits are taxed and the location in which value is created.[11]

Against this background, the authors of this article analyse the current (lack of) possibilities for user-jurisdictions to tax the value generated by the increased use of digital intermediary platforms.[12] In this regard, it should be acknowledged that applicable domestic tax laws often will provide sufficient legal basis for taxing the payment received by a user providing a service to another user through a digital intermediary platform, even though it might be difficult to enforce the tax in practise. For example legal basis often exists for taxing the proceeds received by an Uber-driver or the proceeds received by the letter of an apartment through Airbnb but enforcement may be difficult. However, these issues will not be addressed in this article.[13] Instead, focus will be on analysing the possibilities for user-jurisdictions to tax the remuneration received by the enterprises owning the digital intermediary platform (hereinafter: the platform enterprises), and on discussing whether the users' provision of personal data in exchange for access to the platform could be considered a barter transaction for tax purposes in the user-jurisdiction.

[11] Ibid p. 171-172. It is not the purpose of this article to discuss whether the view of these countries is actually appropriate or not. For a critical discussion see for example Eric C.C.M. Kemmeren, 'Should the Taxation of the Digital Economy Really be Different' (2018) 27 EC Tax Review 2 and Werner Haslehner, *Taxing where value is created in a post BEPS (digitalized) World*, Kluwer International Tax Blog <http://kluwertaxblog.com/2018/05/30/taxing-value-created-post-beps-digitalized-world/> (24 August 2018).

[12] Only issues concerning direct taxation will be dealt with.

[13] Instead, see for example Giorgio Beretta, 'Taxation of Individuals in the Sharing Economy' (2017) 45 Intertax 1, and same author 'The Taxation of the Sharing Economy' (2016) 70 Bulletin for International Taxation 11, Nangel Kwong, 'The Taxation of Sharing Economy Activities' in Ina Kerschner and Maryte Somare (eds.), *Taxation in a Global Digital Economy* (Linde Verlag 2017), p. 61 et seq., Shu-Yi Oei and Diane M. Ring, 'Can Sharing be Taxed?' (2016) 93 Washington University Law Review 4, Roberta A. Kaplan and Michael L. Nadler, 'Airbnb: A Case Study in Occupancy Regulation and Taxation', (2017) 82 University of Chicago Law Review Online 1, and Jane Bolander, 'Deleøkonomi og skat' in Børge Dahl et al. (eds.), *Liber Amicorum Peter Møgelvang Hansen* (Extuto 2016), p. 29 et seq.

The analysis is divided in two main parts. The first main part contains an analysis and discussion of the possibilities for taxing the value creation in the user-jurisdiction under current tax regimes (section 2). The second main part discusses a number of tax policy challenges and options of relevance for taxing platform enterprises, in particular the proposed directive on significant digital presence recently put forward, as part of the European Commission's Digital Tax Package (section 3).[14] Finally, the article contains a section which recaptures the main conclusions (section 4).

2. Digital Intermediary Platforms and Current Tax Principles

2.1. Lack of Taxation in the Jurisdiction of the User

In short, increased digitalisation – including the widespread use of the internet and mobile devices – has expanded the possibility of sharing goods and services beyond individuals' social networks and immediate surroundings.[15] In this context, digital intermediary platforms such as Uber and Airbnb have been able to turn the collaborative model into profitable, global businesses.[16] Thus, the fact that digital intermediary platforms have significantly widened the possibilities for sharing property and services, including across national borders, has created new opportunities for both consumers and entrepreneurs and has raised issues with regard to the application of existing legal frameworks, including the tax framework.[17]

From a tax perspective, sharing economy transactions may be divided into different kinds of transactions, one of which is cash transactions, where users of the network share personal goods or provide services on a peer-to-peer basis via digital intermediary platforms for a fee.[18] In short, the business model of such digital intermediary

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[14] Proposal for a Council Directive laying down rules relating to the corporate taxation of a significant digital presence, COM(2018) 147 final, 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) 148 final.

[15] Vassilis Hatzopoulos and Sofia Roma, 'Caring for sharing? The Collaborative Economy under EU Law' (2017) 54 Common Market Law Review, p. 81-128.

[16] For more on the business models of Uber and Airbnbp including related private law issues see Marie Jull Sørensen, 'Private Law Perspectives on Platform Services: Uber – a business model in search of a new contractual legal frame?' (2016) 5 Journal of European Consumer and Market Law 1, and Vanessa Mak, 'Private Law Perspectives on Platform Services: Airbnb – Home Rentals between AYOR and NIMBY (2016) 5 Journal of European Consumer and Market Law 1.

[17] Communication from the Commission on a European agenda for the collaborative economy, COM(2016) 356 final. and Giorgio Beretta, 'The European Agenda for the Collaborative Economy and Taxation' (2016) 56 European Taxation 9.

[18] For more on the different transaction types see Beretta (2017) [footnote 13].

platforms relies on a three-party relationship between the platform, the providing users and the buying users. Accordingly, the platform creates value by matching end-users for example drivers and passengers so that they can complete a ride on a pay-as-you-go basis. Consequently, such business models rely on a mediation technology which creates value by linking users of the network, as well as organise and facilitate the exchange between users, and ensure transaction quality using a review system whereby users have the option of rating the quality of the interaction.

The activities performed by the platform enterprise thus generally include: 1) network promotion and contract management activities, for example related to inviting potential users to join the network, 2) service provisioning activities, for example related to matching the users, facilitating the supply of goods or services and the payment, and 3) network infrastructure operation activities related to maintaining and running a physical and information infrastructure.[19]

In exchange for providing the mediation technology (typically in the form of an app-based market place), the platform enterprise takes a fee. For example, Uber takes a portion of the gross fares generated by partners (usually up to 20%, depending on the market), and Airbnb charges the hosts a fee of 3% on every booking plus an additional service fee paid by the guests up to 20%.[20]

It is publicly known that some of the larger platform enterprises enjoy low effective taxation of their worldwide income, due to their tax-efficient and often rather complex corporate structures that include entities in low tax jurisdictions.[21] One element in this tax planning is to avoid establishing a taxable presence (nexus) in the jurisdictions where the users are located (hereinafter: the user-jurisdiction).[22] For example, in the case of Uber, a subsidiary in the Netherlands processes the worldwide payments for all rides.[23] Moreover, even though Uber has established subsidiaries in a number of countries where it operates, these subsidiaries do normally not attract a lot of taxable income, as they only

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19 OECD/G20 (2018) [footnote 9], p. 38-40 and p. 66-73. Please see the report itself for a more elaborate description of such business models.

20 <https://www.airbnb.dk/help/article/1857/what-are-airbnb-service-fees> (24 August 2018), and Oei and Ring (2017) [footnote 13], p. 1002.

21 Carrie Brandon Elliot, 'Taxation of the Sharing Economy: Recurring Issues' (2018) 72 Bulletin for International Taxation 4a.

22 Ibid. For more on the lack of a taxable nexus in the user-jurisdiction in the form of a permanent establishment see section 2.2.2 below.

23 Even though the fees received are taxable, the effective taxation is low, among other things because the subsidiary in the Netherlands can deduct intra-group royalty payments.

provide low-risk support services that generally are remunerated on a cost plus-basis.[24]

The fact that highly digitalised enterprises can provide their services without obtaining a taxable nexus in the user-jurisdictions has caused intense debate. Thus, it has been argued that even though data may be collected from the users without monetary consideration, these data constitute a key resource of highly digitalised businesses.[25] Accordingly, it may be argued that the users become a kind of "virtual workers" for these digital enterprises and that it is troubling if these enterprises do not contribute with tax revenues to the jurisdictions where their users live and "work" for them.[26] As the collaborative business models are characterised by high user participation intensity, this argument may also be made with respect to the contributions provided by users of digital intermediary platforms.[27]

Against this background, section 2.2 takes a closer look at the interaction between the platform enterprise and its users. In this regard, it is discussed whether it is correct to consider the interaction between the platform enterprises and the users as one pure cash transaction, which is the payment of a service fee that can generally only be taxed in the user-jurisdiction if a taxable nexus is established there, or whether the interaction in addition contains some kind of barter transaction (section 2.2.1). Subsequently, issues concerning classification and allocation of the right to tax are analysed (section 2.2.2).

2.2. The Interaction Between Platform Enterprises and Users

2.2.1. Transactions Relevant for Tax Purposes

Before it is relevant to classify payments and allocate the taxing right for tax treaty purposes, it must be analysed whether and how the interaction between the platform enterprise and the users should be recognised for domestic tax purposes. Nevertheless, as it is outside the scope of this article to undertake a comprehensive comparative study of various domestic tax regimes, the analysis below is limited to outlining

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[24] Elliot (2018) [footnote 21], who states that Airbnb uses a setup similar to Uber's. See also Brian O'Keefe 'How Uber plays the tax shell game' (2015) Fortune Magazine (22 October).

[25] HM Treasury, *Corporate tax and the digital economy: position paper update* (2018), p. 7 et seq.

[26] Nicolas Colin and Pierre Collin, *Task Force on Taxation of the Digital Economy* (2013), p. 2. See also Raffaele Petruzzi and Svitlana Buriak 'Addressing the Tax Challenges of the Digitalization of the Economy – A possible Answer in the Proper Application of the Transfer Pricing Rules?' 72 Bulletin for International Taxation 4a, who argue that users who generate valuable data serve as "unconscious" contributors and/or employees.

[27] OECD/G20 (2018) [footnote 9], p. 56-59. Users must often disclose their preferences to access the services. Moreover, the users of digital platforms may be seen to bear the burden of verifying the product quality, e.g. by giving a rating or writing a review.

the basic features of the interaction, based on the fact that no income tax systems appear to focus exclusively on cash compensation.[28] In other words, in most income tax systems at least some non-cash barter transactions are considered to possess a taxable component.[29]

As an example, the main principles in Danish tax law could briefly be considered. According to section 4 of the Danish State Tax Act, the main rule is that all income is taxable whether in money or in kind, unless the income consists of a gain from the disposal of private property, pursuant to section 5 of the Danish State Tax Act. In the case of provision of services, the provider will be taxable, if a payment is received in return for the service. In this respect, not only cash payments must be included but also payments in kind that objectively have economic value. This also applies if one service is traded in exchange for another service. For instance, if Person A paints Person B's living room in exchange for Person B repairing Person A's car, both services should in principle be valued and taxed. However, services may be so insignificant and the connection between them so weak that no taxation takes place.[30] Yet, the borderline between a non-taxable interaction and a taxable barter transaction is not clear.[31]

Even though national tax regimes are diverse, the following analysis and discussion of interactions between the platform enterprise and its users will be based on the working hypothesis that the general features of many tax systems are somewhat similar to the Danish tax regime when considering barter transactions for tax purposes.[32]

In addition, it is assumed that the underlying rationale for treating (some) barter transactions as taxable events is often founded in (explicit

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[28] Beretta (2016) [footnote 13], who argues that this is the case no matter whether the domestic tax regime in question is a so-called global system or a scheduler system.

[29] Kwong (2017) [footnote 13], p. 66.

[30] Bolander (2016) [footnote 13], pp. 30-31. See also the report from the Danish Ministry of Taxation;, *Rapport om vennetjenester/sort arbejde, eget arbejde, forbrug af egne varer, produkter og ydelser samt personalegoder* (2002), in which it was stated that so-called tax-exempt acts of friendship could be defined as customary non-commercial services between family, friends and the like caused by ordinary helpfulness, generosity or social involvement.

[31] In 2012, the Danish legislator tried to elucidate when favours between friends and family are not taxable by introducing section 7 A of the Danish Tax Assessment Act. For more on the traditional perception of the income concept in Danish tax law see Jan Pedersen et al., *Skatteretten 1* (Karnov Group 2015), p. 208 et seq., Aage Michelsen et al., *Lærebog om Indkomstskat* (Jurist- og Økonomforbundets Folag 2017), p. 147 et seq., and Thøger Nielsen, *Indkomst beskatning I* (Juristforbundets Forlag 1965), p. 172.

[32] It is recognised that for example jurisdictions relying on old UK doctrines may be different as the judicial concept of income under those doctrines excludes benefits in kind that cannot be converted to cash. See Lee Burns and Richard Krever 'Individual Income Tax' in Victor Thuronyi (ed), *Tax Law Design and Drafting* (Kluwer Law 2000), pp. 507-508.

or implicit) neutrality considerations,[33] broadly understood as the aim that taxes should not affect economic behaviour.[34]Accordingly, based on these assumptions, the economic substance of the interaction between the users and the platform enterprise will now be analysed and compared to how interactions similar in economic substance are normally treated for domestic tax purposes.

It seems straightforward that the cash payment made by the user to the platform enterprise for the provision of various digital services shall be recognised for tax purposes. Accordingly, the cash payment will normally constitute taxable income in the hands of the recipient platform enterprise in the jurisdiction where the platform enterprise is resident according to domestic tax rules (unless the recipient enterprise is located in a tax haven). Moreover, the provisions on limited tax liability in the tax code of the user-jurisdiction may prescribe that tax, for example a withholding tax, shall be levied on the payment in the user jurisdiction (however, as explained in section 2.2.2. below the applicable tax treaty will typically preclude taxation in the user-jurisdiction of payments from a user to a foreign platform enterprise).[35]

In contrast to cash payments, there seems to be no consensus between countries on whether data collection from users as well as their participation and provision of content (for example trust generating reviews of other users of the platforms, user profile data, user locations in real time, credit card data and bank information) in return for access to the digital intermediary platform should be recognised as barter transactions between the users and the platform enterprise.[36]

In the tax literature, barter transactions have recently experienced renewed topicality in relation to the raise of virtual currencies and cryptocurrencies in respect to whether these new currencies constitute means of payment or means of exchange.[37] However, up until now, no

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[33] Ibid, pp. 507-508. See also Robert I. Keller 'Taxation of Barter Transaction' (1982) 67 Minnesota Law Review 411, where the author argues that '[a]*ll taxpayers who engage in barter transactions are in the same economic position they would have been had they received cash for their goods or services in an amount equal to the value of the goods or services actually received and used that cash to purchase goods or services from the other party to the exchange.'*.

[34] The broad definition of neutrality used in Simon James and Christopher Nobes *The Economics of Taxation* (Prentice Hall 1998), p. 306.

[35] According to Chang Hee Lee and Ji-Hyun Yoon, 'General Report' in International Fiscal Association (eds), Cahiers de droit fiscal international volume 103 B: With holding tax in the era of BEPS, CIVs and the digital economy (Sdu 2018), p. 236, every country covered in the branch reports rely on a withholding system to collect a number of taxes concerning non-residents.

[36] OECD/G20 (2018) [footnote. 9], p. 38-40.

[37] See for example Aleksandra Bal 'Stateless Virtual Money in the Tax System' (2013) 53 European Taxation 7 and the same author 'Blockchain, Initial Coin Offerings and Other Developments in the Virtual Currency Market' (2018) 20 Derivatives & Financial

relevant analysis of the distinction between barter transactions and other interactions, which neither constitute a money transaction nor a taxable barter transaction, seems to have been conducted for direct tax purposes.[38]

No generally accepted definition of a barter transaction exists but one could be: '*Transactions whereby products or services are directly exchanged between two suppliers without using money as a medium of exchange*'.[39] Four cumulative conditions in order for a transaction to be regarded a barter transaction can be derived from this definition.

First, the articles exchanged should be regarded as products or services. This should most likely be broadly interpreted as to include almost anything that may be controlled and offered for attention, acquisition, use or consumption etc. In this context, it seems difficult to argue that the supply of data by users of a platform, as well as the access to the platform provided by the platform enterprise, cannot be considered within the scope.[40]

Second, the products or services should be exchanged, which in respect of barter transactions may be defined as: '*the barter of the comparatively superfluous for the comparatively necessary*'.[41] This only seems to require that some right, for example to own or use a product, is given or some service is provided. That will likely include a platform enterprise's right to collect user data, as well as the right for the users to access the platform.[42] In respect of the term comparatively, this is a subjective measure and, consequently, it is challenging to determine whether the data and access to the platform are comparatively superfluous and necessary to the users and the platform enterprise. However, as the users

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Instruments 2 and Louise Fjord Kjærsgaard and Katja Dyppel Weber 'Skattemæssig behandling af virtuelle valutaer' [2018] Tidskrift for skatter og afgifter, 2.

[38] Piergiorgio Valente 'Digital Revolution – Tax Revolution?' (2018) 72 Bulletin for International Taxation 4a, lists the following question as one of the questions that are still pending: '*Should consumers/users be taxed in respect of the deemed benefits derived from the transition of data owned?* However, the author does not provide an answer. In the literature on VAT Sebastian Pfeiffer 'VAT on Free Electronic Services?' (2016) 27 International VAT Monitor 3, has discussed whether electronic services are subject to VAT where the consideration consists of personal data provided by the users.

[39] Julie Rogers-Glabush, *IBFD International Tax Glossary* (IBFD 2009), p. 35.

[40] It has been debated how to classify personal user data collected by enterprises. For example, Colin and Collin (2013) [footnote 26] discuss how to qualify data collected from users given that such data are not per se an intangible asset owned by the collecting enterprise.

[41] W. Stanley Jevons 'Money and the Mechanism of Exchange' [1896] The International Scientific Series, p. 8

[42] For example in respect of Uber, both the driver and the passenger must sign an agreement which entails that a wide spectrum of driver and passenger data may be collected and used by Uber.

and the platform enterprise are generally unrelated, it seems reasonable to assume that this is the case.[43]

Third, it has to be an exchange between two suppliers. Again, this seems to be a broad concept that may include most situations where a person provides products or services that people want or need, especially over a long period of time.[44] In direct tax law, it is rarely necessary to discuss whether a given taxpayer should be seen as a "supplier", as this is normally not decisive for the taxation. However, within other legal disciplines, it is a central question to answer. Accordingly, interpretive aid may perhaps be found in other fields such as indirect tax law and private international law.

For VAT purposes, it has been discussed in the literature whether a highly digitalised business such as a platform enterprise is the only supplier of a service, or whether both the platform enterprise *and* the users should be considered taxable suppliers. The strongest arguments seem to support that the users of a platform should not be considered suppliers in a VAT context. This is based on the fact that users allegedly cannot be viewed as carrying out economic activities (economic exploitation with the purpose of obtaining income) *and* that the provision of personal data in order to gain access to the platform could constitute a mere form of payment similar to crypto currencies, which is accepted as a mean of payment for VAT purposes. However, uncertainty exists, as it could also be argued that the link between the service (access to the platform) and the consideration (provision of user data) is too weak to cause that the consideration could constitute a mere payment.[45] As crypto currencies are typically regarded as properties and not a mean of payment for direct tax purposes, it could be argued that the principles from VAT cannot be directly relied on in the analysis of whether the interaction between the users and the platform enterprise should be recognised as a barter transaction.[46]

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[43] See Keller (1982) [footnote 33], where it is stated '[…] *that in most taxable exchanges the same basis figure would result whether the taxpayer used the value received or the value given up theory of cost, since generally the value of two exchanged in an arms length transaction are either equal in fact, or are presumed to be equal.'.*

[44] See for example the general definition of supplier in Cambridge Dictionary <https://dictionary.cambridge.org/>.

[45] Pfeiffer (2016) [footnote 38]. Even though VAT law may provide some inspiration, it should be kept in mind that there are fundamental differences between the underlying principles of direct tax law and indirect tax law. See Karina Kim Egholm Elgaard, *Interaktion mellem momsretten og indkomstskatteretten* (Jurist- & Økonomforbundets Folag 2016), p. 131 et seq.

[46] Bal (2013) [footnote 37], Kjærsgaard and Weber (2018) [footnote 37] and administrative practice from the Danish Tax Council, decision of 9 March 2018, SKM2018.104.SR, decision of 3 April 2018, SKM2018.130.SR, decision of 31 August 2017, SKM2017.520.SR, and decision of 1 April 2014, SKM2014.226.SR.

In private international law, emphasis is often put on who provides the characteristic performance of the transaction with respect to determining the applicable law in the absence of choice. In this regard, where a party enters into a contract in the course of his trade or profession, it is rebuttably presumed that this is the party that provides the characteristic performance which again means that the other party is considered a buyer and not a supplier.[47] Nevertheless, if it is not possible to identify a *single* party that provides the characteristic performance of a transaction, the presumption does not apply.[48] Accordingly, if relying on these principles from international private law, the interaction between the platform enterprise and the users could only be viewed as a barter transaction if none of the parties can be seen as the party providing the characteristic performance.

Fourth, money cannot be used as a means of payment in the transaction; hence, barter transactions should be distinguished from sale and purchase of products and services in which money is exchanged. Even though a fee is typically paid by the user for acquiring a service through a digital intermediary platform, it should be noted that the recipient of the fee will not necessarily be the same group entity as the entity collecting the user data, and that it may be possible to split the overall interaction into a monetary transaction, as well as a non-monetary transaction.[49] Moreover, it is typically possible to access the platform without actually acquiring anything, and even in that case, user data is collected and used. Correspondingly, in a number of situations, personal data seems to be exchanged for access to the platform. Although, no generally accepted definition of money exists for tax purposes, neither of the articles exchanged between the users and the platform enterprise have the general characteristics of money known from economic theory, that is something which can be used as a medium of exchange, a measure of value, a standard value, and storage of value.[50]

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[47] Article 4 (2) of the Convention on the Law Applicable to Contractual Obligations (adopted 19 June 1980, entry into force 1991) (hereinafter: The Rome Convention). See Richard Plender and Michael Wilderspin, *The European Private International Law of Obligations* (Sweet & Maxwell 2009), p. 169.

[48] Ibid.

[49] As mentioned in section 2.1. above, in the case of Uber a subsidiary in the Netherlands processes the worldwide payments for all rides, whereas the data seems to be collected and used by the headquarter entity, see OECD/G20 (2018) [footnote 9], p. 67.

[50] Jevons (1896) [footnote 41], pp. 13-18. In Danish administrative practice, the Danish Tax Council has stated that from a Danish domestic tax law perspective for an article to be regarded as money it must be: (1) regulated by the global currency market, (2) subject to regulation by a central bank, (3) redeemable, and (4) affiliated with a jurisdiction or currency area. See decision of 25 March 2014, SKM2014.226.SR, regarding the qualification of Bitcoins, and decision of 22 August 2017, SKM2017.520.SR regarding the qualification of Bookcoins.

If the interaction can be viewed as a barter transaction, the interaction could potentially give rise to income taxation on both sides of the transaction, depending on the applicable domestic tax law. The underlying reason is that splitting the interaction in two separate supplies in consideration for money does not change the economic substance of the transaction.[51]

However, generally, tax systems accept that various kinds of interactions are not relevant for tax purposes. An example could be the social interaction between two colleagues discussing an issue. This discussion may be of mutual benefit if both colleagues thereby gain new insights. Nevertheless, typically, such interactions are viewed as social, everyday interactions where the link between the interaction and the creation of economic value is considered too weak to be recognised for tax purposes. Accordingly, if the interaction between the users and the platform enterprise can be considered similar to such social, everyday interactions, it normally implies that the interaction is not relevant for tax purposes for any of the parties.

Altogether, there does not seem to be a clear and general answer to how the interaction between the users and the platform enterprise shall be viewed, among other things because all interactions between users and the various platforms are not completely alike and since the existing tax regulations have not been drafted with such digital transactions in mind.[52] However, it seems far-fetched to compare the interactions between the users and the platform enterprise to social, everyday interactions, as at least the platform enterprise has a clear commercial rather than social motive. Further, there seems to be a clear link between the collection and use of data and the creation of economic value for the platform enterprise.[53] In addition, as most users would probably not allow the collection of user data or would not spend time on writing reviews etc. without getting something in return, it seems reasonable to presume that the users' access to the platform provides some kind of (economic) value for the users, for which the users might otherwise would have been willing to pay for in cash.

Consequently, for direct tax purposes, it could be argued that the non-monetary part of the interactions between the platform enterprise and the users appear to have quite strong similarities with a recognisable

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[51] Keller (1982) [footnote 33] 67 Minnesota Law Review 411, where the author argues that '[a]*ll taxpayers who engage in barter transactions are in the same economic position they would have been had they received cash for their goods or services in an amount equal to the value of the goods or services actually received and used that cash to purchase goods or services from the other party to the exchange.'*

[52] Apart from viewing the interaction as either a barter transaction or a social, everyday event some intermediary outcomes could also be considered. For example, it could be considered whether the platform should be seen as the only part providing a service, and the users as a "pure" buyer paying in kind, or vice versa.

[53] OECD/G20 (2018) [footnote 9], p. 29.

barter transaction. This may, at least in theory, give rise to income taxation on both sides of the transaction, if the applicable domestic tax legislation has similarities with the main principles of the Danish regime and an applicable tax treaty allocates the right to tax the user of such income to the user-jurisdiction, for example as 'business income' or 'other income'.

Nevertheless, even though it may be possible for the user-jurisdiction to find legal basis in current tax regulations for taxing resident users of the receipt of a payment in kind (in the form of access to the platform), no jurisdictions are, to our knowledge, currently enforcing such taxation.[54] One reason for this could obviously be that taxpayers, tax authorities, and courts do not agree or are not (yet) aware that such legal basis may be found in the applicable domestic tax legislation. However, in practice, it may also play a role that enforcing such taxation would entail severe practical challenges, inter alia, because of difficulties with valuation of the payments in kind.[55] Further, there seems to be a risk that the costs associated with controlling and collecting such taxes will be significant compared to the tax revenue collected, as the value of each barter transaction is likely to be low, whereas the volume of barter transactions could be massive.[56] Finally, the taxation of users on the access to digital intermediary platforms would conflict with a number of other principles underpinning most tax systems. For example, it must be expected that individual taxpayers will have a hard time understanding and accepting being taxed, just because they obtain access to a platform.[57]

As a consequence of the fact that user-jurisdictions in practice are not levying tax on users receiving a payment in kind in the form of access to a platform, the following section on classification for tax treaty purposes will only address issues related to the payment from users to a foreign platform enterprise. In other words, the section below will only

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[54] It is generally recognised that income tax systems struggle to capture transactions where money is not used as a medium of payment on either side of the transaction see OECD/G20, (2018) [footnote 9].

[55] OECD, *Exploring the Economics of Personal Data: A Survey of Methodologies for Measuring Monetary Value* (OECD Publishing 2013). Further, it seems impossible to distinguish how much value is associated with the data of a specific user, as this depends on inter alia the scale and quality as well as the specific business model adopted by the enterprise, see also Olbert and Spengel (2017) [footnote 1]. Less debated, though equally challenging, is the valuation of the access provided to the users.

[56] OECD/G20, (2015) [footnote 6], p. 100.

[57] Carrying out such taxation of a potentially very high number of low value user transactions could in practice conflict with underlying objectives such as simplicity, administrability, fairness and efficiency. For a general and critical discussion of the various objectives see Louis Kaplow, *The Theory of Taxation and Public Economics* (Princeton Press 2008), p. 37 et seq.

consider the allocation of taxing rights with respect to the income received by the platform enterprises (not by the users).

2.2.2. CLASSIFICATION FOR TAX TREATY PURPOSES

The development and wide spread use of the OECD Model Tax Convention on Income and on Capital (hereinafter: the OECD Model) has supported the so-called 'classification and assignment of sources method' which means that income is classified under a number of categories and taxing powers are assigned to each state for each category of income.[58] However, as described and analysed above, the digitalisation has enabled monetisation in new ways that raise questions regarding both the rationale behind the existing classifications of income and the consistency of the treatment of similar types of transactions.[59]

In regard to the classification of payments in digital transactions, the Technical Advisory Group concluded in its report from 2001 (hereinafter: The TAG Report)[60] that one of the most important classification issues were the distinction between business income and royalties corresponding to Article 7 and 12 of the OECD Model, assuming that all payments are received in the course of carrying on a business.[61] This distinction is also of importance with respect to the classification of payments from the users to the platform enterprise, as it potentially affects the allocation of the right to tax. The reason is that numerous bilateral tax treaties allow the source state (the user-jurisdiction) to withhold a tax on royalty payments, whereas the right to tax business income is exclusively granted to the domicile state unless the income should be allocated to a taxable permanent establishment (hereinafter: PE), located in the source state, pursuant to Article 7 of the OECD Model (2017).[62] In other words, so-called nexus is needed in the user-jurisdiction, in order for the user-jurisdiction to be able to tax the income of a foreign platform enterprise.

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[58] Chang Hee Lee, 'Impact of E-Commerce on Allocation of Tax Revenue between Developed and Developing Countries' in Reuven Avi-Yonah (ed), *International Tax Law Vol. 1 (*Edward Elgar Publ. 2016) and Michael J. Graetz and Michael M.O'Hear 'The Original Intent of U.S. International Taxation' in Reuven Avi-Yonah (ed), *International Tax Law Vol. 1 (*Edward Elgar Publ. 2016), with reference to David Rosenbloom and Stanley I. Langbein 'United States Tax Treaty Policy: An Overview' (1981) 19 Columbia Journal of Transnational Law 359, who view the choice of classification and assignment as the basic structure for virtually all current bilateral tax treaties.

[59] OECD/G20 (2015) [footnote 6], p. 98 et seq.

[60] OECD Technical Advisory Group on Treaty Characterisation of Electronic Commerce Payments, *Tax Treaty Characterisation Issues Arising from E-commerce* (1 February 2001 and adopted by the OECD Council in July 2002).

[61] Ibid, p. 4.

[62] Lee and Yoon (2018) [footnote 35], p. 238. See also Hanna Litwinczuk 'Poland: Payments for Copyrights of Computer Software as Royalties' in Michael Lang et al. (eds) *Tax Treaty Case Law around the Globe* (IBFD 2011), pp. 288-299.

According to the main rule in Article 5(1) of the OECD Model (2017), a PE means a fixed place of business through which the business of an enterprise is wholly or partly carried on. However, as physical presence is required in order to create a PE, digital enterprises have the possibility of providing their services in the user-jurisdiction remotely without establishing a PE. For example, platform enterprises provide their services remotely through digital intermediary platforms and thereby generally avoid establishing a PE in the user-jurisdiction. Moreover, as the number of matches made by the platform between end-users are only limited by computer power, the scale and geographical scope of the platform enterprises' activities may be comprehensive, even though no taxable nexus is established.[63]

Recently, amendments have been made to the PE-definition in the OECD Model (2017) and its commentaries.[64] However, as physical presence is still used as the nexus-defining criterium, many digital business models, including platform enterprises, will still be able to provide their digital services without establishing a PE in the user-jurisdictions.[65]

Nevertheless, it should be recalled that Article 7 is secondary to Article 12 of the OECD Model (2017) if an enterprise does not carry on its business through a PE in the source state (the user-jurisdiction). Accordingly, it must initially be considered whether the payment

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[63] OECD/G20 (2018) [footnote n. 9], p. 70-71.

[64] The amendments were prescribed in OECD/G20, *Preventing the Artificial Avoidance of Permanent Establishment Status – Action 7 Final Report* (OECD Publishing 2015). A number of bilateral tax treaties will incorporate these changes through the adoption of the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting, (signed on 7 June 2017, entry into force on 1 July 2018).

[65] Peter Hongler and Pasquale Pistone, *Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy*, IBDF Working Paper 20 January 2015, and Kofler et al. (2017) [footnote 2]. The 2017-amendments to Article 5 of the OECD Model with Commentary included an expansion of the dependent agent-test, a tightening of the independent agent criteria, and a narrowing of the PE-exemptions for preparatory and auxiliary activities. However, several countries that have signed the Multilateral Instrument have chosen not to apply the amended PE definition. No analysis of the (amended) PE definition will be conducted in this article, as several other contributions in the literature have already done this. See for example Vishesh Dhuldhoya, 'The Future of the Permanent Establishment Concept' (2018) 72 Bulletin for International Taxation 4a, Peter Blessing, 'Preventing the Artificial Avoidance of PE in Base Erosion and Profit Shifting (BEPS) – Impact for European and International Tax Policy' in Robert Danon (ed.), *Base Erosion and Profit Shifting (BEPS) – Impact for European and International Tax Policy* (Schulthess, 2016), Daniel W. Blum 'Permanent Establishments and Action 1 on the Digital Economy of the OECD Base Erosion and Profit Shifting Initiative – The Nexus Criterion Redefined' 69 Bulletin for International Taxation 6/7, and Anders Nørgaard Laursen, 'Ændringer af fast driftsstedsdefinitionen afledt af BEPS-projektet', [2018] SR-Skat, p. 111 et seq.

received by the platform enterprise constitutes a royalty. In this respect, it should be noted that the definition of royalties varies in bilateral tax treaties, though it is often inspired by the definition of royalties included in Article 12 (2) of the OECD Model (2017):

> The term 'royalties' as used in this Article means payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.

The word 'payment', as used in the definition, should be interpreted broadly and only requires the fulfilment of an obligation to put funds at the disposal of the creditor in the manner required by contract or by custom.[66] Consequently, a payment does not need to be in cash to be within the scope of the definition.[67] Hence, the cash fee as well as the data provided by the users of a platform (if presumed that the data also forms part of the taxable part of the remuneration to the platform), could potentially be classified as royalties. However, the classification of payments between the users and the platform enterprise shall be based on a thorough analysis of the facts on a case-by-case basis. Nonetheless, it must be expected that the payment, as a starting point, could often be considered a payment related to a mixed contract.[68]

According to The TAG Report and the commentaries to Article 12(2) of OECD Model (2017), a payment in consideration for know-how and copyrights concerning software shall only in relatively rare cases be classified as royalties. This is based on the understanding that such payments are generally for the provision of services using underlying copyrights or know-how and not for *the right to use* or be *imparted* in the copyrights or knowhow.[69] This also seems to be the case with respect to

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[66] Para. 8.3 of the commentaries to Article 12 of the OECD Model (2017).

[67] Matthias Valta, 'Income from Royalties' in Ekkehart Reimer and Alexander Rust (eds), *Klaus Vogel on Double Taxation Conventions* (Wolters Kluwer 2015), p. 993.

[68] Such mixed contracts should be broken down, on the basis of the information contained in the contract or by means of a reasonable apportionment and classified separately except if; (i) one part of what is being provided constitutes by far the principal purpose of the contract, *and* (ii) the other parts are only of an ancillary and largely unimportant character. In such cases, the classification of the principal part should generally be applied to the whole amount of the consideration, according to para. 11.6 (know-how) and 17 (software) of the Commentaries to Article 12 of the OECD Model (2017).

[69] OECD Technical Advisory Group on Treaty Characterisation of Electronic Commerce Payments (2001) [footnote 60], p. 5 and 7. See also para. 11-11.6 (know-how) and 12-17.4 (software) of the commentaries to Article 12 of the OECD Model (2017).

the payment made to a platform enterprise, as the users are not given information on the ideas and principles underlying the platform, such as the logic, algorithms, programming languages or techniques.[70] Consequently, the payment should typically be classified as business income, according to Article 7 of the OECD Model (2017) which entails that the user-jurisdiction will not be entitled to tax the income, if the platform enterprise does not have a PE in the user-jurisdiction.

It should be mentioned that some bilateral tax treaties contain an expanded royalty definition which also includes payments for the provision of technical services and that the scope of 'technical' is disputed. The prevailing understanding, however, seems to be that making data and software, or functionality of that data or software, available for a fee does not constitute a service of a technical nature.[71] On this basis, it could be argued that even with an expanded definition of royalties, the payments from the users to the platform enterprise (whether in cash or in personal data) shall typically be classified as business income and shall therefore not be taxable in the user-jurisdiction, assuming that no PE of the platform enterprise is established.

Consequently, if the user-jurisdiction cannot tax the income of the platform enterprise and in practice cannot either carry out taxation of the users, the user-jurisdiction will be left with nothing to tax with respect to value generated in the interaction between the platform enterprise and the users.[72] On this basis, it is a fact that some countries wish to explore other opportunities for establishing a taxing right in the user-jurisdiction. Some of these initiatives will be discussed further in section 3.

3. POLICY CHALLLENGES AND OPTIONS

3.1. UNILATERAL AND OECD REACTIONS

Currently, and as explained above, user-jurisdictions are normally not entitled to tax the income of a foreign platform enterprise, if the enterprise does not have physical presence in the user-jurisdiction in the form of a PE. Moreover, even though it may be possible for the user-jurisdiction to find legal basis for taxing resident users of the receipt of a

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[70] For illustrative examples see para. 11.5 and 14.3 in the commentaries to Article 12 of the OECD Model (2017).

[71] OECD Technical Advisory Group on Treaty Characterisation of Electronic Commerce Payments (2001) [footnote 60], p. 15. Whether 'technical' should be understood strictly in the context of know-how, industrial IP and secrets, or as to having a wider meaning is debated in international tax literature, see for example Matthias Valta (2015) [footnote 67], p. 1019-1021, where the author summarises and discusses the various views.

[72] Obiously, the providing user of a platform will typically be taxable in the user-jurisdiction depending on the applicable domestic tax law. However, this is outside the scope of this article, as explained en section 1.

payment in kind (in the form of access to the platform), no jurisdictions are, to our knowledge, currently enforcing such taxation.

Against this background, and because similar challenges occur in relation to other digital business models, it is not surprising that some countries have made an effort to explore new opportunities for establishing a taxing right in the user-jurisdiction.

A part of these efforts has been made under the auspices of the OECD. Thus, besides the targeted initiatives that were agreed upon in the course of the BEPS project,[73] a number of broader tax policy options, enabling (some) taxation in the user-jurisdiction, have been discussed, including; 1) a new nexus in the form of a significant economic presence, 2) a withholding tax on certain types of digital transactions, and 3) an equalisation levy. However, for various reasons, none of the options were agreed upon and recommended.[74]

Even though no agreement was reached with respect to the broader tax challenges, the BEPS Report on Action 1 stated that countries could introduce any of these three options in their domestic laws or tax treaties as additional safeguards against BEPS (provided they respect existing treaty obligations).[75] Perhaps as a consequence of this, a number of countries have taken such unilateral action.[76] India, Hungary, and Italy have for example adopted rules that (will) impose equalisation levies on certain kind of digital services, and both the UK and Australia have introduced a so-called diverted profits tax. Moreover, Israel has introduced rules that create a taxable nexus in Israel if the foreign enterprise has a digital PE there. Finally, and of particular interest for the topic of this article, it should be mentioned that Slovakia has introduced a new broad PE concept to encompass ride and room-sharing intermediation services.[77]

As already mentioned, it is understandable that some countries feel a need to take action in order to protect their tax bases from the challenges caused by highly digitalised business models. However, the proliferation of unilateral approaches may have severe adverse impacts

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[73] Including the amendments to the PE definition mentioned in section 2.2.2.

[74] OECD/G20 (2015) [footnote 6], p. 13 and p. 97 et seq. For elaborate proposals on how the PE concept could be extended and how to use withholding taxes to address the challenges raised by the digital economy see Peter Hongler and Pasquale Pistone, (2015) [footnote 65] and Yariv Brauner and Andrés Baez, *Withholding Taxes in the Service of BEPS Action 1: Address the Tax Challenges of the Digital Economy*, Working paper of 2 February 2015 (IBFD 2015) .

[75] OECD/G20 (2015) [footnote 6], p. 13 and p. 97 et seq.

[76] The lack of consensus is also reflected in the interim 2018-report, even though the report states that continued work is undertaken in order to reach a consensus-based solution by 2020. See OECD/G20 (2018) [footnote 9], p. 212-213.

[77] For a recent overview of the various unilateral initiatives see Lee Sheppard, 'Digital Permanent Establishment and Digital Equalization Taxes' (2018) 72 Bulletin for International Taxation 4a.

on investment and growth, inter alia, due to the increased risk of double taxation, as well as increased interpretational complexity. This concern is also shared by the European Commission which is of the opinion that the adoption of unilateral and divergent approaches by Member States could be ineffective and fragment the single market by creating national policy clashes, distortions and tax obstacles for businesses in the EU. Accordingly, the European Commission finds that coordinated initiatives are needed.[78]

3.2. THE EU PROPOSAL ON SIGNIFICANT DIGITAL PRESENCE

For quite some time, the EU has been engaged in discussions and initiatives addressing the tax challenges raised by highly digitalised businesses, including the challenges caused by the increased use of digital intermediary platforms.[79] In continuation of these efforts, the European Commission has recently proposed two new directives. The first directive proposal is laying down rules that should enable member states to tax income generated in their territory if the taxpayer is considered to have a significant digital presence in the member state (even without having physical presence).[80] Moreover, the second directive introduces an interim solution enabling member states to levy a tax of 3% on revenues from certain types of digital services (digital services tax), where the main value is created through user participation.[81]

Below, the proposal laying down rules relating to a significant digital presence is analysed in further detail. Particular focus will be on the elements of relevance for platform enterprises, despite the fact that the directive has a broader scope. The proposal on a digital services tax is not addressed. The reasons for focusing on the first proposal are, among other things, that the digital service tax is only proposed as an interim measure, it is not a tax on income (but on turnover), the digital services tax has already received severe criticism by academic scholars,[82] and the whole idea seems to lack substantial support from member states.[83]

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[78] Directive Proposal COM(2018) 147 final [footnote 14], p. 5.

[79] European Commission, *Commission Expert Group on Taxation of the Digital Economy – Report* (2014). See also Bjørn Westberg, 'Taxation of the Digital Economy – An EU Perspective' (2014) 54 European Taxation 12, and Paolo Centore and Maria Teresa Sutich, 'Taxation and the Digital Economy: Europe is Ready' (2014) 42 Intertax 12.

[80] Directive Proposal COM(2018) 147 final [footnote 14].

[81] Directive Proposal COM(2018) 148 final [footnote 14].

[82] Johannes Becker and Joachim English, *EU Digital Services Tax: A Populist and Flawed Proposal*, Kluwer International Tax Blog <http://kluwertaxblog.com/2018/03/16/eu-digital-services-tax-populist-flawed-proposal/> (24 August 2018), and Eric C.C.M. Kemmeren (2018) [footnote 11].

[83] In a questionnaire sent to the Member State's tax authorities, only 9 respondents answered that they believe that a digital services tax would solve the current problems. See Commission Staff Working Document, SWD(2018) 81 final/2, p. 94.

The basic idea behind the first proposal is to extend the currently applied PE-concept in order to include a significant digital presence[84] and to set out new principles for attributing income to such significant digital presence, as new attribution rules are needed in order to better capture the value creation of highly digitalised business models.[85]

According to Article 2, the proposed directive shall apply only for purposes of corporate tax in each Member State and should apply to entities irrespective of where they are resident for tax purposes.[86] However, in order to not violate the Member States' tax treaties with third countries, it follows that the directive should not apply to entities resident in third countries if the Member State has concluded a tax treaty with that third state and the treaty does not include provisions similar to the proposed provisions on significant digital presence.[87] This exception is obviously necessary in order to not cause treaty override, but it may entail a significant reduction of the scope of the new rules if the Member States are not successful or sufficiently interested in re-negotiating their tax treaties with third countries.

According to Article 4(1), a PE will be considered to exist if a significant digital presence exists through which a business is wholly or partly carried on. The phrase '*through which a business is wholly or partly carried on'* is also used with respect to the existing PE-rule set out in Article 5(1) of the OECD Model (2017). However, in that context, the phrase is usually meant to indicate that persons who, in one way or another, are dependent on the enterprise (personnel) conduct the business of the enterprise in the State in which the fixed place is situated.[88] Given that a significant digital presence of for example a platform enterprise may exist, even if no personnel is carrying on

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[84] Accordingly, it follows from Article 4(2) of the proposed directive that the new concept must be viewed as an addition that does not affect or limit the application of any other test under EU law or national law for determining a PE.

[85] As a consequence of the scope and focus of this article (allocation of the right to tax), the profit allocation rules proposed in Article 5 are not further analysed. For more on how profits could be attributed to a digital PE see Yariv Brauner and Pasquale Pistone, 'Some Comments on the Attribution of Profits to the Digital Permanent Establishment' (2018) 72 Bulletin for International Taxation 4a.

[86] The encompassed corporate taxes are listed in Annex I to the directive proposal.

[87] However, the Commission has adopted a recommendation which recommends that Member States negotiate the necessary adaptions to their tax treaties with third countries, so as to bring provisions on significant digital presence into effect. See Commission Recommendation of 21 March 2018 relating to the corporate taxation of a significant digital presence, C(2018) 1650 final. Moreover, as set out in the Directive Proposal COM(2018) 147 final [footnote 14], p. 1-4, the intention is that the proposal should contribute to the ongoing efforts of the OECD and that similar provisions eventually should become part of the OECD model, as well as the Commission's preferred overall solution; the common consolidated corporate tax base (CCCTB).

[88] Para. 6 in the commentaries to article 5(1) of the OECD Model (2017).

business in the user-jurisdictions, because no or limited human intervention is needed, it makes little sense to interpret the phrase in line with its traditional understanding. Despite this, the proposal does not contain any material guidance on how to interpret this phrase.

Pursuant to Article 4(3), a significant digital presence shall be considered to exist in a Member State if the business carried on through it consists wholly or partly of the supply of digital services through a digital interface and one or more of three conditions is met.[89] Before dealing with the three conditions, it is worth taking a closer look at the concepts of digital services and digital interface.

Starting with the last concept, digital interface is briefly defined in the proposal's Article 3(2) as any software, including a website or a part thereof and applications, including mobile applications accessible by users. This definition is very broad and seems to cover most, if not all, digital interfaces currently used for digital intermediary platforms.

A more elaborate definition is provided in Article 3(5) with respect to the concept of digital services.[90] Accordingly, digital services should be understood as services 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. It should be noted that 'minimal human intervention' means that the services involve minimal human intervention on the side of the platform enterprise without any regard to the level of human intervention on the side of the users (which may be substantial). In this regard, a digital intermediary platform must also be regarded as requiring minimal human intervention in situations where the platform enterprise initially sets up the system, regularly maintains and updates the system, or repairs it in cases of problems linked with its functioning.[91] However, it is important to note that the mere sale of services facilitated by using a digital intermediary platform is not regarded as a digital service for the providing user (for example the Uber-driver or the lettor of an apartment on Airbnb). In other words, it is the platform enterprise that gives access to the digital intermediary

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[89] Whether the conditions are met should be evaluated with respect to the entity carrying on that business, taken together with the supply by each of that entity's associated enterprises in aggregate. The term "associate enterprise" is defined in art. 3(9).

[90] Article 3(5) includes a list of services which in particular are considered *digital services*. These examples further underline the broad scope of the concept and makes it even clearer that also the services supplied by a digital intermediary platform in a Member State may constitute a significant digital presence. These examples are complemented by a list of encompassed digital services in Annex II to the directive proposal. Annex III provides a list of services that are not included.

[91] Directive Proposal COM(2018) 147 final [footnote 14], p. 6-9. The definition corresponds to the definition of "electronically supplied services" in article 7 of the Council Implementing Regulation (EU) No 282/2011 of 15 March 2011.

platform for remuneration (for example Uber or Airbnb) which is considered to provide digital services.[92]

As mentioned above, a significant digital presence of a platform enterprise should only be considered to exist if one or more of the following three conditions are met; (a) the proportion of total revenues obtained in that tax period and resulting from the supply of digital services to users located in that Member State in that tax period exceeds EUR 7,000,000; (b) the number of users of one or more of digital services who are located in that Member State in that tax period exceeds 100,000; or (c) the number of business contracts for the supply of any such digital service that are concluded in that tax period by users located in that Member State exceeds 3,000.

With respect to condition (a) Article 3(6) prescribes that 'revenues' basically means all proceeds of sale and of other transactions net of VAT and other taxes and duties, whether of a monetary or non-monetary nature. The proportion of total revenues in a Member State shall, pursuant to Article 4(7), be determined in proportion to the number of times that devices are used in a tax period by users located anywhere in the world to access the digital intermediary platform.

With regard to both condition (a) and (b), a user shall, according to Article 4(4), be deemed to be located in a Member State in a tax period, if the user uses a device in that Member State in that tax period to access the digital intermediary platform. Moreover, the Member State where a user's device is used shall be determined by reference to the Internet Protocol (IP) address of the devices or, if more accurately, any other method of geolocation.

Even though condition (a) and (b) might seem relatively simple to apply, practical and interpretive difficulties must be expected to arise. For example, in practice, it might be difficult to delineate revenues obtained from the supply of digital services from other (related) kinds of revenue. In addition, it might not be particularly easy to keep sufficient track of the often vast numbers of users and their locations and at the same time preserve the privacy of the users.[93]

Finally, with respect to condition (c), it is stipulated that a contract shall count as a business contract if the user concludes the contract in the course of carrying on business. It seems that this could include contracts concluded by "providing users" acting sufficiently frequently and professionally. However, it may be difficult for the platform

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[92] Directive Proposal COM(2018) 147 final [footnote 14], p. 6-9.

[93] Article 8 of the proposed directive states that the data collected shall be limited to data indicating the Member State in which the users are located, without allowing for identification of the user. Anyway, concern has been raised about the compatibility with EU privacy rules. See Cristiano Garbarini, *Six questions plus one about the EU Directive on the taxation of a significant digital presence*, Kluwer International Tax Blog <http://kluwertaxblog.com/2018/04/20/six-questions-plus-one-proposed-eu-directive-taxation-significant-digital-presence/> (24 August 2018).

enterprise to know and control whether this is in fact the case. In addition, it is stated in Article 4(5) that such users shall be deemed to be located in a Member State in a tax period if the user is resident for tax purposes in that Member State in that tax period or the user is resident for corporate tax purposes in a third country but has a PE in that Member State in that tax period. As the domestic tax rules for determining residence vary between Member States, this link to domestic tax legislation may cause additional complexity.

Overall, the proposed directive on significant digital presence is not without some merit. It addresses a legislative and political need to preserve Member States' tax bases in a time where the new digital business models, including digital intermediary platforms, challenge the existing international tax regime. Correspondingly, the new concept enables the user-jurisdictions to tax (parts of) the profits generated by the interaction between the users and a foreign platform enterprise.[94] Furthermore, a uniform EU approach seems preferable to the proliferation of Member States' unilateral approaches.

However, some limitations of the proposal have to be emphasised. For example, and as identified above, a number of the terms used in the directive contain interpretive uncertainties, and in general the current proposal appears to need further work in order to become sufficiently clear and targeted. In addition, it may be questioned whether the thresholds are set at appropriate levels and whether the criteria are at risk of ring-fencing certain digital activities (too much). Further, it does not seem clear how enterprises relying on both a digital and a physical presence would be affected.[95] Finally, and from a more political perspective, it should be factored in that it may not be easy to persuade non-EU treaty partners to alter the tax treaties in order to introduce a provision on significant digital presence.[96] Should this be the case, it might cause a flow of digital business from the EU to other non-EU jurisdictions.[97]

4. CONCLUSIONS

As physical presence is still used as the nexus-defining criterium, platform enterprises are often able to provide their digital services without establishing a PE in the user-jurisdiction. This entails that user-jurisdictions will normally be precluded from taxing the income of

[94] However, if the new concept should be able to address the challenges it is crucial that appropriate attribution rules are adopted, in order to capture the value creation of the digital business models.

[95] This concern has also been raised with respect to the significant economic presence concept contemplated by the OECD. See Olbert and Spengel (2017) [footnote 1].

[96] See also Kofler et al. (2017) [footnote 2], who argues that the appropriateness of different standards within and outside the EU is highly questionable.

[97] Garbarini (2018) [footnote 93].

foreign platform enterprises, as the income should typically be classified as business income, pursuant to Article 7 of the OECD Model (2017), and since the platform enterprises are often able to deliver their digital services remotely.

Taking a closer look at the interaction between the platform enterprises and the users, it may be possible to argue that some kind of barter transaction takes place, as the users of the digital intermediary platform provide vital data to the platform enterprise in exchange for getting "free" access to the platform. However, even though it may be possible for some user-jurisdictions to find legal basis in existing tax legislation for taxing resident users of the receipt of a payment in kind (in the form of access to the platform), this does not seem to be a viable option in practice.

As a consequence of the current lack of possibility for taxation in the user-jurisdictions, the European Commission's recent proposal for a directive laying down rules relating to a significant digital presence seems to be particularly interesting, as it will enable user-jurisdictions within the EU to tax (parts of) the profits generated by foreign platform enterprises. Accordingly, even though the proposal needs further work in order to become sufficiently clear and targeted, and the scope may be limited in order not to cause treaty override, it may prove to be a step in the right direction, if adopted.

Louise Fjord Kjærsgaard*

Allocation of the Taxing Right to Payments for Cloud Computing-as-a-Service

The author analyses the options available to user jurisdictions for taxing the value generated by cloud computing service providers. The focus is on the challenges of allocating the taxing right to payments for cloud computing provided as a service in the form of Infrastructure-as-a-Service, Platform-as-a-Service and Software-as-a-Service, deployed as both public and private cloud computing. More specifically, the focus is on mixed contracts, the distinction between business income and royalties and whether the provision of such services constitute a permanent establishment. The analysis is primarily based on the OECD Model Tax Convention on Income and on Capital, but some relevant derogations and national practices are also considered. Among other things, it is concluded that the user jurisdictions, pursuant to the current international tax regime, will, under certain circumstances, be precluded from taxing the income of foreign cloud computing service providers, as cloud computing service providers may be able to deliver their digital services from remote locations while structuring their business around potential withholding taxes. Against this background, value creation and the fundamental principles of legal certainty, neutrality and the ability to pay tax are discussed. Finally, it is recommended that policymakers assess the full effects of the changes made in the tenth update to the OECD Model Tax Convention on Income and on Capital (21 November 2017) before introducing new measures.

Contents

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1. Introduction

The ongoing digitalization of the economy has increased rapidly over the last years and has resulted in the development of and changes in many products and services, as well as in how they are provided. This includes the increasing transformation of software products from goods to services, i.e. so-called "servitization".[1] However, it has, for some time, been argued by legal scholars, taxpayers, policymakers and tax authorities that applying the current tax regime to the changed economy results in diverse and global challenges.[2]

The international nature of this digitalization of the economy implies that international solutions to the challenges are preferred, which, in turn, suggests that the ambitious OECD/G20 BEPS Project is the right forum for analysing these challenges. However, the challenges related to the allocation of taxing rights to payments for digital technologies go beyond base erosion and profit shifting, which are both varieties of tax avoidance. Such payments call into question not only the fundamental rationale behind the existing rules on the allocation of taxing rights, but also the consistency with which similar transactions are treated.[3]

Taking into account the fundamental nature of the challenges imposed by digitalized business models, the (lack of) result of the OECD/G20 BEPS Action 1 Final Report, delivered in 2015, is not surprising. The report concluded that further work was needed in respect of, among other things, the classification of income received for the provision of cloud computing-as-a-service.[4] It was stated that the OECD will continue to monitor the digitalization of the economy in consultation with a broad range of stakeholders and that it intends to deliver a report in 2020 reflecting the outcomes of its continuing work.[5] Nonetheless, the result regarding direct taxation in the Action 1 Final Report,[6] as well as the Inclusive Framework Interim Report, delivered in spring 2018,[7] clearly showed that reaching agreement on how

1. OECD/G20, *Addressing the Tax Challenges of the Digital Economy – Action 1: 2015 Final Report*, pp. 41 and 52 (OECD 2015), Primary Sources IBFD [hereinafter *Action 1 Final Report*]. This development is sometimes also referred to as "Something-as-a-Service" or "X-as-a-Service".
2. *See*, e.g. *Action 1 Final Report*, *supra* n. 1, at p. 98 et seq.; J.Á.G. Requena, *Tax Treaty Characterization of Income Derived from Cloud Computing and 3D Printing and the Spanish Approach*, 46 Intertax 5 (2018); O. Heinsen & O. Voss, *Cloud Computing under Double Tax Treaties: A German Perspective,* 40 Intertax 11 (2012); and P. Gupta, *"Cloud" – A Technological Odyssey,* 20 Asia-Pac. Tax Bull. 5 (2014), Journal Articles & Papers IBFD.
3. *See*, e.g. OECD/G20, *BEPS Project Public Consultation Document – Addressing the Tax Challenges of the Digitalisation of the Economy, 13 February-6 March 2019*, p. 13 et seq. (OECD 2019), Primary Sources IBFD [hereinafter *Public Consultation Document*]; OECD/G20, *Action 1 Final Report*, *supra* n. 1, p. 97; and J. Becker & J. Englisch, *Taxing Where Value Is Created: What's "User Involvement" Got to Do with It?*, 47 Intertax 2, p. 161 et seq. (2019).
4. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 138.
5. Id.
6. Id., at ch. 10.
7. OECD/G20, *Tax Challenges Arising from Digitalisation – Inclusive Framework on BEPS: 2018 Interim Report* (OECD 2018), Primary Sources IBFD [hereinafter *Inclusive Framework Interim Report*].

to handle these new and highly digitalized business models is an extremely challenging task. Furthermore, the OECD Public Consultation Document,[8] issued on 13 February 2019, and the Programme of Work,[9] issued on 31 May 2019, lack detail on whether and to what extent consensus has been reached on the scale and nature of the challenges posed by digitalization. Given the lack of transparency regarding the positions of the project members, in combination with the complexity of amending the international tax regime, it is uncertain whether agreement can be reached, and even if it were to be reached, it is unclear how it would impact cloud computing business models. Consequently, in this article, the challenges of allocating taxing rights to payments for cloud computing-as-a-service are analysed pursuant to the current international tax regime. Moreover, as the allocation of the right to tax payments depends significantly on the factual circumstances, the analysis is based on a thorough understanding of the technology provided to users.

Against this background, the current options available to user jurisdictions for taxing the value generated by the use of cloud computing-as-a-service are analysed in this article.[10] The focus is on the possibilities for user jurisdictions to tax remuneration received by enterprises providing cloud computing services (i.e. cloud computing service providers, or CCSPs). The article begins, in section 2., by describing cloud computing-as-a-service, along with the typical service and deployment models, as this is a necessary foundation for the subsequent analysis and discussion. The subsequent analysis is then divided into two main parts.

The first main part offers a traditional legal dogmatic analysis and discusses the options available under current tax regimes for taxing the value creation of CCSPs in the user jurisdiction (*see* section 3.).[11] The primary aim in this part is to deduce the law as it stands *de lege lata* by gathering, systematizing and analysing relevant legal sources.[12] In this context, the focus is on analysing the definition of royalties and the concept of permanent establishment (PE) in articles 5 and 12 of the OECD Model Tax Convention on Income and on Capital (OECD Model) and its Commentaries, as many bilateral tax treaties rely on these definitions.[13] Hence, although the OECD Model is not in itself a ratified and binding treaty,

8. OECD/G20, *Public Consultation Document*, *supra* n. 3, supports the further work of the Inclusive Framework on BEPS on digitalization, under its mandate from the G20 finance ministers and working through its task force on the digital economy.
9. OECD/G20, *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy – Inclusive Framework on BEPS* (OECD 2019).
10. Only issues concerning direct taxation will be dealt with; hence, issues in respect of VAT and similar taxes are not within the scope of this article.
11. The legal dogmatic method is often used in studies of international tax law: *see*, e.g. J. Wittendorff, *Transfer Pricing and the Arm's Length Principle in International Tax Law* p. 13 et. seq. (Kluwer International Law 2010).
12. *See*, e.g. E.-M. Svensson, *Boundary-Work in Legal Scholarship* in *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism* pp. 17-50 (Å. Gunnarsson, E.-M. Svensson & M. Davies eds., Routledge 2007).
13. *OECD Model Tax Convention on Income and on Capital* arts. 5 and 12 (21 Nov. 2017), Treaties & Models IBFD [hereinafter *OECD Model* (2017)]. *See* C.H. Lee & J.-H. Yoon, *General Report*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 23 (IFA Cahiers vol. 103B, 2018), Books IBFD, where it is stated that many countries adhere to the OECD Model to a certain extent, although the allocation of taxing rights over royalties typically differs. *See also* J. Sasseville & A. Skaar, *General Report*, in *Is There a Permanent Establishment?* p. 23 et seq. (IFA Cahiers vol. 94a, 2009), Books IBFD; and P. Baker, *Double Taxation Agreements and International Tax Law: A Manual on the OECD Model Double Taxation Convention (1977)* p. 2 (Sweet and Maxwell 1991).

it has often been of great importance for the interpretation and application of bilateral tax treaty provisions.[14]

The interpretation of treaties in general – and therefore also tax treaties – is undertaken in accordance with the Vienna Convention on the Law of Treaties (1969) (Vienna Convention).[15] According to article 31 of the Vienna Convention, the general rule of interpretation is that a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in the context and in light of the object and purpose of the treaty. Further, supplementary means of interpretation are given in article 32, stating that recourse may be had to the preparatory work of the treaty and the circumstances of its conclusion. This implies that interpreting a treaty requires conducting, first, a strict interpretation of the text of the treaty and its co-text and, thereafter, a purposive interpretation of the strict and broader context. In addition, article 3(2) of the OECD Model provides for a third method of interpretation, i.e. the "renvoi" method, stating that any term not defined in the OECD Model shall have the meaning that it has at that time under the tax law of the relevant domestic tax system for the purposes of the taxes to which the convention applies.[16] However, before the renvoi method can be applied, it must be determined whether the term in question is defined either in the tax treaty itself or in its co-text, based on a literal and autonomous interpretation as well as a purposive and contextual interpretation of the strict and broader context.[17]

14. *See*, e.g. US: Tax Court (USTC), 2 May 1995, *Taisei Fire and Marine Insurance Co. v. Commissioner*, 104 TC 535, 548, Case Law IBFD. Similarly, the Danish Supreme Court has, in a number of cases, referred to the OECD Model and Commentaries: *see*, e.g. DK: (HR) [Supreme Court], 18 Dec. 1992, I 323/1991, Case Law IBFD, in which the court referred to the *OECD Model Tax Convention on Income and on Capital* (1 Sept. 1992), Treaties & Models IBFD as the reason for its decision in assessing the taxable income of a Danish branch of a US company. *See also* AU: High Court of Australia (HCA), 22 Aug. 1990, *Thiel v. Federal Commissioner of Taxation*, Case Law IBFD, in which the HCA dealt with the tax treatment of profits resulting from the sale of shares under the bilateral tax treaty concluded between Australia and Switzerland in 1980. To clarify the meaning of "enterprise" within the tax treaty, the judges in this case turned to the *OECD Model Tax Convention on Income and on Capital: Commentary on Article 3* (11 Apr. 1977), Treaties & Models IBFD, and the *OECD Model Tax Convention on Income and on Capital: Commentary on Article 7* (11 Apr. 1977), Treaties & Models IBFD. The importance of the OECD Model is further discussed in R. Avi-Yonah, *International Tax as International Law*, 57 Tax L. Rev., pp. 483-501 (2004); and C. Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary* p. 3 (Edward Elgar 2016). Garbarino argues that OECD interpretative solutions or principles may circulate through either effective or hybrid juridical transplants activated by domestic courts.

15. The *Vienna Convention on the Law of Treaties* (23 May 1969), Treaties & Models IBFD [hereinafter *Vienna Convention*] entered into force on 27 Jan. 1980. It should be noted that the importance of the Vienna Convention for the interpretation of tax treaties has been subject to discussion in the literature: *see*, e.g. F. Engelen, *Interpretation of Tax Treaties under International Law* pp. 425-516 (IBFD 2004), Books IBFD; U. Linderfalk & M. Hilling, *The Use of OECD Commentaries as Interpretative Aids – The Static/Ambulatory-Approaches Debate Considered from the Perspective of International Law*, 2015 Nordic Tax Journal 1, pp. 36-40 (2015); and P.J. Wattel & O. Marres, *The Legal Status of the OECD Commentary and Static or Ambulatory Interpretation of Tax Treaties*, 43 Eur. Taxn. 7, pp. 225-229 (2003), Journal Articles & Papers IBFD.

16. Art. 3(2) *OECD Model*. There is ongoing discussion regarding which state's domestic law art. 3(2) refers to, i.e. the domicile state, the source state or the state applying the OECD Model. However, as the analysis in this paper is of a general nature and conducted according to the OECD Model – although examples from domestic law are given to a limited extent for illustrative purposes – it is not considered necessary to engage in this discussion. Instead, *see*, e.g. Engelen, *supra* n. 15, at p. 473 et seq.

17. *See* Garbarino, *supra* n. 14, at pp. 16-25. Garbarino argues that (i) the "co-text" includes the preamble, text and annexes of the treaty, any agreement relating to the treaty and any instrument in connection with the conclusion of the treaty; (ii) the "strict context" includes any subsequent agreement or practice and any relevant rules of international law; and (iii) the "broad context" includes the preparatory work of the

Regarding the interpretation of tax treaties – and what should be considered relevant co-text as well as strict and broader context – the exact legal status of the Commentaries on the OECD Model has been disputed.[18] Based on the principles set out here, it has been argued that, insofar as the Commentaries fall under the co-text,[19] the strict context[20] or the broad context[21] of the tax treaty, the Commentaries should be regarded as binding by domestic courts.[22] However, some domestic courts have taken different positions, ranging from applying the Commentaries as a (broad and vague) interpretative authority in general,[23] to merely applying them as a technical guide; hence, the interpretational importance of the Commentaries may vary from this approach.[24] Nonetheless, as it is the allocation of taxing rights to payments for cloud computing-as-a-service according to the OECD Model that is analysed in this article, the Commentaries are here given interpretative value. Moreover, as there currently is no international court interpreting the provisions of the OECD Model or of bilateral tax treaties,[25] available national case law from around the world is included in the analysis. Although the case law of one jurisdiction is not binding in other jurisdictions, the widespread use of the definitions of royalties and of the PE concept set out in the OECD

treaty and the circumstances of the conclusion of the treaty. However, the scope of "context" is uncertain and has been subject to discussion in the literature; *see*, e.g. Baker, *supra* n. 13, at pp. 23-24.

18. Engelen, *supra* n. 15, at p. 439 et seq. In particular, scholars are divided on the question as to how to fit the Commentaries into the rules of interpretation laid out in the Vienna Convention: *see* Linderfalk & Hilling, *supra* n. 15, at p. 40; and S. Douma & F. Engelen, *The Legal Status of the OECD Commentaries* (IBFD 2008), Books IBFD, especially the contribution therein by N. Blokker, *Skating on Thin Ice? On the Law of International Organizations and the Legal Nature of the Commentaries on the OECD Model Tax Convention* p. 24, sec. 3. For the OECD's own view on the status and importance of the Commentaries, *see OECD Model* (2017), Introduction, paras. 15 and 29.

19. Garbarino, *supra* n. 14, at p. 28: e.g. when both contracting states expressly refer to the Commentaries as the interpretative solution or when they conclude a tax treaty using the terms of the OECD Model and have both expressly accepted the interpretation of the OECD.

20. Id.: e.g. when the interpretative solutions established in the Commentaries express international customary law or country practices accepted by both contracting states.

21. Id.: e.g. when there is proof that the Commentaries have been actively used when negotiating the issue at stake.

22. C. West, *References to the OECD Commentaries in Tax Treaties: A Steady March from "Soft" Law to "Hard" Law?*, 9 World Tax J. 1, sec. 3 (2016), Journal Articles & Papers IBFD: "Since 2000, there has been increasing reference to OECD Commentaries with respect to the interpretation of tax treaties within either the treaty itself or with reference to a protocol to the treaty."

23. Garbarino, *supra* n. 14, at pp. 28-29.

24. West, *supra* n. 22; W. Wijnen, *Some Thoughts on Convergence and Tax Treaty Interpretation*, 67 Bull. Intl. Taxn. 11, p. 576 (2013), Journal Articles & Papers IBFD. Wijnen considers the OECD Commentaries an important aid in the interpretation of treaties, but that the importance that courts attach to it differs from country to country. Specifically, he finds that courts in Australia, Canada, the Netherlands and the United Kingdom consider the OECD Commentaries to be very important and to have persuasive value. Courts in Austria, Germany and India are found to rely consistently upon the OECD Commentaries, whereas courts in France merely apply them as a technical guide, and courts in Italy consider them to be of limited value.

25. In AT: ECJ, 12 Sept. 2017, Case C-648/15, *Republic of Austria v. Federal Republic of Germany*, Case Law IBFD, the Court of Justice of the European Union (ECJ) interpreted the provisions on interest in the bilateral tax treaty between Austria and Germany. However, this treaty contains a reference to the ECJ as an arbiter in cases of difficulty or doubt. So far, this reference is the only one of its kind in a bilateral tax treaty. *See* H. Verhagen, *The European Court of Justice as Court of Arbitration for Disputes under DTA's (Case C-648/15, Austria v Federal Republic of Germany)*, Kluwer International Tax Blog (13 Sept. 2017), available at http://kluwertaxblog.com/2017/09/13/european-court-justice-court-arbitration-disputes-dtas-case-c-64815-austria-v-federal-republic-germany/ (accessed 29 July 2019). Verhagen discusses whether the ECJ has stretched its jurisdiction too far.

Model and its Commentaries means that national court decisions from other jurisdictions can be an important source of guidance for national courts.[26]

Finally, it should be stressed that, in the legal dogmatic analysis conducted in this article, it is recognized that the allocation of the right to tax payments for cloud computing provided as a service has, to some extent, already been analysed in the international tax literature.[27] However, while this literature is acknowledged, it is the aim to reduce some of the remaining uncertainties by providing a fuller understanding of the technology, as well as a thorough analysis of the relevant legal sources. Specifically, (i) the classification of payments is analysed for three different cloud computing service models, with regard to whether they are deployed as private or public cloud computing; (ii) the circumstances are analysed under which mixed contracts of cloud computing-as-a-service – as well as mixed contracts in general – should be subject to unified taxation or broken down; and (iii) it is analysed whether the provision of cloud computing-as-a-service creates PEs in the user jurisdictions (*see* section 3.).

Based on the findings reached through the legal dogmatic method, *de lege ferenda* considerations regarding whether the income of CCSPs should be taxable in the user jurisdiction are discussed in the second main part of the analysis. The allocation of taxing rights is considered according to the principles of neutrality between traditional and highly digitalized business models[28] and the ability to pay tax, meaning that the tax burden should be proportionate to the capacity of the taxpayer.[29] These criteria have been chosen because they are generally considered fundamental for evaluating tax systems, including in respect of digitalized business models.[30] Recommendations are then made for improving legal certainty, which requires the law to be clear, easily accessible and comprehensible[31] (*see* section 4.).

The final section of the article outlines the main conclusions (*see* section 5.).

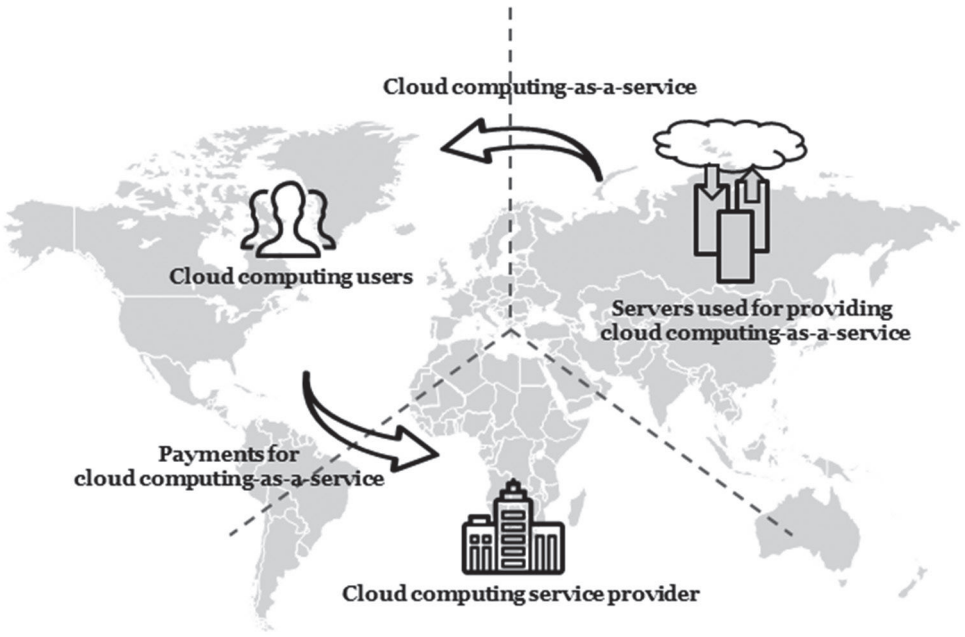
26. Sasseville & Skaar, *supra* n. 13, at pp. 21-22; and Garbarino, *supra* n. 14, at p. 8. Baker, *supra* n. 13, at p. 31, states that "the OECD Model now forms such a generally accepted basis for the negotiation of treaties that courts should examine and follow the decisions of authorities in other states unless they are convinced that the other decision is incorrect".
27. *See*, e.g. Requena, *supra* n. 2, at pp. 408-421; S. Wagh, *The Taxation of Digital Transactions in India: The New Equalization Levy*, 70 Bull. Intl. Taxn. 9 (2016), Journal Articles & Papers IBFD; L.F. Kjærsgaard & J.L. Jørnsgård, *Kvalifikation af betalinger for cloud computing efter OECD's modeloverenskomst,* 2016 SKAT Udland 11 (2016); A. Bal, *The Sky's the Limit: Cloud-Based Services in an International Perspective*, 68 Bull. Intl. Taxn. 9 (2014), Journal Articles & Papers IBFD; J. Monsenego, *May a Server Create a Permanent Establishment? Reflections on Certain Questions of Principle in Light of a Swedish Case*, 21 Intl. Transfer Pricing J. 4, p. 247 et seq. (2014), Journal Articles & Papers IBFD; Gupta, *supra* n. 2; Heinsen & Voss, *supra* n. 2, at pp. 584-592; and A. Bal, *Tax Implications of Cloud Computing: How Real Taxes Fit into Virtual Clouds*, 66 Bull. Intl. Taxn. 6 (2012), Journal Articles & Papers IBFD.
28. OECD, *Implementation of the Ottawa Taxation Framework Conditions*, p. 12 (OECD 2003) [hereinafter *Ottawa Taxation Framework*].
29. J. Englisch, *Ability to Pay* in *Principles of Law: Function, Status and Impact in EU Tax Law* (C. Brokelind ed., IBFD 2014), Books IBFD.
30. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at pp. 20, 21, 25 and 26.
31. D. Weber & T. Sirithaporn, *Legal Certainty, Legitimate Expectations, Legislative Drafting, Harmonization and Legal Enforcement in EU Tax Law,* in *Principles of Law: Function, Status and Impact in EU Tax Law* (C. Brokelind ed., IBFD 2014), Books IBFD; and G.T. Pagone, *Tax Uncertainty*, 33 Melbourne U. Law Rev. 3, p. 887 (2009), citing S. Joseph & M. Castan, *Federal Constitutional Law: A Contemporary View* p. 6 (Law Book Co. 2006) and J. Raz, *The Rule of Law and Its Virtue*, 93 Law Quarterly Rev. 2, pp. 198-202 (1977).

2. Cloud Computing

Cloud computing is considered fundamental to accelerating the digitalization of other businesses and, therefore, the entire economy. Cloud computing is often used as a cost-minimizing strategy to supply digital products and services, as the market of CCSPs is known to attain economies of scale.[32] Many businesses have recognized the effectiveness, operational excellence and innovation that cloud computing can facilitate, and, according to the OECD, the use of cloud computing has increased significantly in recent years, with approximately 50% of large businesses using cloud computing services in 2016.[33]

Figure 1 is a simple illustration of a cloud computing business model and the payments to which the taxing right should be allocated between the contracting states.

Figure 1 – Illustration of a cloud computing business model in which servers, users and cloud computing service providers may be located in multiple jurisdictions, resulting in the provision of cloud computing services and payments across national borders



Despite the significance of cloud computing, there seems to be no generally accepted definition of it. However, legal scholars[34] – as well as the OECD – have previously used the following definition issued by the National Institute of Standards and Technology (NIST):

32. OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, at p. 73. Economies of scale are attained when long-run average costs decrease while the quantity produced increases and input prices are fixed: *see*, e.g. R. Frank, *Microeconomics and Behavior*, p. 374 (8th ed., McGraw-Hill Irwin 2010). *See also* OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 60.
33. OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, at pp. 13-14.
34. *See*, e.g. Requena, *supra* n. 2, at p. 410; Heinsen & Voss, *supra* n. 2, at p. 584; and Gupta, *supra* n. 2, at p. 308.

> [A] model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computer resources (e.g. network, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interactions.[35]

More conceptualized, cloud computing can be said to have three layers: (i) the system layer, i.e. a virtual machine as an abstraction of physical servers; (ii) the platform layer, i.e. the visualized operating system of a server; and (iii) the application layer, i.e. web applications.[36] However, it should be noted that, in practice, cloud computing-as-a-service can vary significantly in terms of the provision of access to and control over available computer resources.

2.1. Cloud computing service models

Cloud computing provided as a service is typically divided into three service models: (i) Infrastructure-as-a-Service (IaaS); (ii) Platform-as-a-Service (PaaS); and (iii) Software-as-a-Service (SaaS).[37] Even though the solutions offered under each of the three service models may vary significantly, the essential difference is the user's authority and control over the three conceptualized layers.

IaaS is the pillar of cloud computing architecture and a highly efficient solution for developing PaaS and SaaS. A CCSP delivering IaaS provides fundamental computing resources (e.g. storage and networks) that make it possible for the user to deploy and run software, including operating systems and applications. Hence, the user does not control or manage the underlying cloud infrastructure, but has control over operating systems, storage systems and applications.[38] A well-known example of IaaS is Amazon EC2.

PaaS offers the user a platform and programming tool to create and modify applications created by a development language hosted by the CCSP. The user does not control or manage the underlying cloud infrastructure, operating systems and storage systems, but has control over the created applications. A well-known example of PaaS is the Google App Engine, which provides a platform on which the user can build highly scalable applications.[39]

SaaS provides the user with the capability to use the CCSP's applications through a thin interface, e.g. a web browser with a web-based email. Changes in the underlying systems are made by the CCSP, which means that the user does not have to upgrade the software to the newest version available, i.e. the accessible version is always the newest, and new features can thus be used immediately without the users having to install any software on their computer. The user does not control and manage the underlying cloud infrastructure, operational systems, storage systems or applications. A well-known example of SaaS is Google

35. P. Mell & T. Grance, *The NIST Definition of Cloud Computing* p. 2, National Institute of Standards and Technology (NIST) Special Publication 800-145 (NIST 2011).
36. S. Goyal, *Public vs Private vs Hybrid vs Community – Cloud Computing: A Critical Review*, 6 Intl. J. of Computer Network and Info. Security 3, p. 21 (2014).
37. *See*, e.g. id., at pp. 22-23; OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 60; and Gupta, *supra* n. 2, at p. 308.
38. *See* Amazon Elastic Compute Cloud, available at https://aws.amazon.com/ec2/ (accessed 29 July 2019); and Goyal, *supra* n. 36, at p. 22.
39. *See* Google App Engine, available at https://cloud.google.com/appengine (accessed 29 July 2019); and Goyal, *supra* n. 36, at p. 22.

Docs, which offers the possibility to access a word processing application with which users can create documents.[40]

2.2. Private and public cloud computing

When using cloud computing, data and software are, for security and efficiency purposes, generally not stored on one specific server. Rather, the system copies each individual user's data and software onto multiple servers, which makes it possible to direct users' requests for resources to the physical location that best satisfies the demand. The functional overlap also ensures that, even if a problem should occur on a server, the data or software will not disappear.[41] To be more specific, individual access to the server capacity underlying the cloud depends on how the cloud computing is deployed. At the two ends of the spectrum are public and private cloud computing.

Public cloud computing gives the public ongoing access to the infrastructure through the Internet, often on a pay-per-use basis.[42] Users share the underlying servers with other users, which minimizes cost but can be problematic from a data protection point of view.[43] Conversely, private cloud computing offers a cloud infrastructure operated solely for a single user, either on or off-premise.[44] As the cloud infrastructure is accessed only by the user and authorized third parties, this way of deploying cloud computing offers more control and security for data and software stored in the cloud.[45]

Between these types of cloud computing are various combinations under so-called "hybrid cloud computing", consisting of at least one public cloud and one private cloud. The user deploys the cost-effective public cloud computing for less-sensitive data and software, and private cloud computing when there is a need for greater control and security.[46]

On the basis of this description of cloud computing-as-a-service, including the typical service and deployment models, section 3. contains an analysis of the current options available for user jurisdictions to tax the remuneration received by the CCSP for the provision of cloud computing-as-a-service. Initially, payments received for the provision of cloud computing-as-a-service will be classified according to the OECD Model (2017), and this will be followed by an analysis of whether the provision of cloud computing-as-a-service creates a PE of the CCSP under the OECD Model (2017).

40. *See* Google Docs, available at https://www.google.com/docs/about/ (accessed 29 July 2019); and Goyal, *supra* n. 36, at pp. 22-23.
41. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 59.
42. NIST defines a public cloud as "one in which the infrastructure and computational resources that it comprises are made available to the general public over the Internet. It is owned and operated by a cloud provider delivering cloud services to consumers and, by definition, is external to the consumers' organizations": *see* W. Jansen & T. Grance, *Guidelines on Security and Privacy in Public Cloud Computing* p. 3, NIST Special Publication 800-144 (NIST 2011).
43. Goyal, *supra* n. 36, at p. 23.
44. NIST defines a private cloud as "one in which the computing environment is operated exclusively for a single organization. It may be managed by the organization or by a third party, and may be hosted within the organization's data center or outside of it. A private cloud has the potential to give the organization greater control over the infrastructure, computational resources, and cloud consumers than can a public cloud": *see* Jansen & Grance, *supra* n. 42, at p. 3.
45. Goyal, *supra* n. 36, at pp. 24-25.
46. Id.; Gupta, *supra* n. 2, at p. 309; and H. Koenig & K.C. Ho, *Taxing the Borderless Cloud within the Singapore Border*, 18 Asia-Pac. Tax Bull. 5, p. 395 (2012), Journal Articles & Papers IBFD.

3. Cloud Computing-as-a-Service and Current Tax Principles

The classification of payments is justified by the practical significance of the OECD Model, according to which cross-border income should be classified under a number of categories and the right to tax this income is allocated on that basis to each state.[47] It should, however, be of little surprise that challenges arise regarding the interpretation of such tax treaty provisions, which allocate tax revenue between the contracting states.

With respect to the classification of payments in digital transactions, the Technical Advisory Group on Treaty Characterisation of Electronic Commerce Payments (Technical Advisory Group) concluded, in its report from 2001,[48] that one of the most important classification issues is the distinction between business income and royalties, corresponding to articles 7 and 12 of the OECD Model, in circumstances in which all payments are received in the course of carrying on a business.[49]

As also recognized by Lee and Yoon, these challenges continue to exist and are also of importance with respect to the classification and allocation of taxing rights to payments for cloud computing-as-a-service.[50] This is based on the fact that numerous bilateral tax treaties allow the source state, i.e. the user jurisdiction, to tax royalty payments, whereas the right to tax business income in general is exclusively granted to the domicile state unless the income should be attributed to a PE located in the user jurisdiction.[51] Hence, in order to determine the possibilities for user jurisdictions to tax value generated by CCSPs, it is necessary to analyse whether payments for cloud computing-as-a-service should be classified as royalties and whether the CCSP has a taxable presence in the user jurisdiction.

Before it becomes relevant to allocate the taxing rights on payments for cloud computing-as-a-service according to a tax treaty, it must be established that the payment is taxable according to the domestic tax law of the user jurisdictions. However, the tax laws of user jurisdictions will generally impose source tax on payments in the user jurisdictions, especially if the income is classified as royalty income under domestic tax law or the if it may be allocated on the basis of a taxable presence in the user jurisdiction.[52] Accordingly, the analysis in this article will, from this point on, adhere to the assumption that payments for cloud computing provided as a service will be taxable in user jurisdictions for domestic tax law purposes.

47. C.H. Lee, *Impact of E-Commerce on Allocation of Tax Revenue between Developed and Developing Countries*, in *International Tax Law*, vol. 1 (R.S. Avi-Yonah ed., Edward Elgar 2016); M.J. Graetz & M.M. O'Hear, *The "Original Intent" of US International Taxation* in *International Tax Law*, vol. 1 (R.S. Avi-Yonah ed., Edward Elgar 2016); and H.D. Rosenbloom & S.I. Langbein, *United States Tax Treaty Policy: An Overview*, 19 Columbia J. Transnatl. L., p. 359 (1981).
48. Technical Advisory Group on Treaty Characterisation of Electronic Commerce Payments, *Tax Treaty Characterisation Issues Arising from E-commerce* (1 Feb. 2001), adopted by the OECD Council in July 2002 [hereinafter *Tax Treaty Characterisation Issues*].
49. Id., at p. 4.
50. *See* Lee & Yoon, *supra* n. 13, at p. 34**,** where it is stated that no national tax administration has established clear interpretative guidelines on the taxation of income from cloud computing and that, as a result, the traditional rules and theories in respect of the international taxation of services apply, potentially leading to a number of difficult problems in determining the character and source of the relevant income.
51. Id., at p. 21; and H. Litwinczuk, *Poland: Payments for Copyrights of Computer Software as Royalties* in *Tax Treaty Case Law around the Globe* pp. 288-299 (M. Lang et al. eds., Wolters Kluwer Law & Business 2011).
52. According to Lee & Yoon, *supra* n. 13, at p. 18, every country covered in the branch reports relies on a withholding system to collect a number of taxes concerning non-residents. Further, these authors state that withholding taxes apply almost universally in international transactions classified as interest, dividends, royalties and even certain forms of business profits not attributed to PEs.

3.1. The classification of payments for cloud computing-as-a-service

In this section, the challenges concerning the classification of payments for IaaS, PaaS and SaaS, deployed as public or private cloud computing, will be analysed. However, as contracts for cloud computing are often very complex and usually include multiple services (e.g. access to virtual and physical servers and their infrastructure, storage systems, operational systems and applications), cloud computing contracts are typically mixed contracts. Hence, before classifying payments for cloud computing-as-a-service from a tax treaty perspective, it is necessary to analyse whether the contract – and thus, the consideration made under the contract – should be broken down or be subject to unified taxation.

3.1.1. Mixed contracts

3.1.1.1. The OECD Model and its Commentaries

It is stated in the Commentary on Article 12 of the OECD Model (2017) that payable consideration under mixed contracts should, in principle, be broken down, either according to the information given in the contract or by means of a reasonable apportionment of the whole amount of consideration pursuant to the various parts; and that, subsequently, the appropriate tax treatment, including classification, should be applied to each apportioned part.[53] However, if one part of what is being provided constitutes "by far the principal purpose of the contract" while "the other parts stipulated therein are only of an ancillary and largely unimportant character", the treatment applicable to the principal part should be applied to the whole amount of the consideration.[54] It is argued that, as this is an exception to the general rule, the exemption should be interpreted narrowly; nonetheless, this exemption may be interpreted in various ways.[55]

A strict literal and autonomous interpretation of the wording included in the Commentary on Article 12 of the OECD Model (2017) seems to imply a two-step approach, according to which unified taxation should be applied only in situations in which (i) *one* part constitutes, by far, the principal purpose of the contract; and (ii) *all* of the other parts are of an ancillary and largely unimportant character, i.e. there can only be one principal purpose of a contract and *all* other parts must be ancillary and largely unimportant. The reason for such an interpretation is that contracts containing one principal purpose as well as ancillary and largely unimportant services could, in economic substance, be said to constitute just *one* service. This interpretation is further supported by the choice of wording in the Commentary on the OECD Model (2017) that unified taxation should be "applied to the *whole amount of the*

53. *OECD Model Tax Convention on Income and on Capital: Commentary on Article 12* paras. 11.6 and 17 (21 Nov. 2017), Treaties & Models IBFD [hereinafter *OECD Model: Commentary on Article 12* (2017)]. *See also* S.L. Lugo, *Chile*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* pp. 21-22 (IFA Cahiers vol. 103B, 2018), Books IBFD, in which the author observes that, in Ruling no. 1833 (23 May 2016), "the Chilean IRS was consulted in very broad terms on the domestic tax treatment of cloud computing", including, inter alia, software, infrastructure and services. Even though no clear answer was provided to the broad and unclear question, the Chilean IRS would, in principle, "try to separate the different activities included under cloud computing and apply the corresponding taxation as per the legal nature of each activity separately".

54. Paras. 11.6 and 17 *OECD Model: Commentary on Article 12* (2017).

55. The principle that exceptions should be narrowly interpreted is emphasized by several authors in the literature: *see*, e.g. U. Linderfalk, *On the Interpretation of Treaties: The Modern International Law as Expressed in the 1969 Vienna Convention on the Law of Treaties* p. 286 (Springer 2007).

consideration" (emphasis added) instead of, for example, the appropriate proportion of the consideration.[56]

In connection with this interpretation, members of the Technical Advisory Group discussed an alternative approach, proposing that the treaty classification applicable to the (one) predominant element of the payment should always be applied to the whole of that payment, i.e. the non-predominant element(s) should automatically be treated as ancillary and largely unimportant. It is recognized that an obligation to break down the payments and apply the correct classification in a mixed contract – which, for commercial purposes, should be regarded as a single transaction – may impose an unreasonable compliance burden on taxpayers and tax authorities. However, while the Technical Advisory Group invited comments on this issue, none were received, and thus, no further changes were recommended to the revised Commentaries, which implies that such an interpretation cannot find support in the current wording.[57] Hence, this more practical interpretation of the appropriate course for dealing with mixed contracts is not supported.

A second alternative – and somewhat less strict – literal interpretation of the wording of the Commentary on Article 12 of the OECD Model (2017) also seems to imply a two-step-approach, according to which mixed contracts must be broken down unless (i) the contract has an apparent principal purpose – or purposes; and (ii) the remaining parts of the contract are of both an ancillary and largely unimportant character; i.e. a contract may include several principal services, with connected ancillary and largely unimportant services (contrary to the first alternative, in which there can only be one predominant service). This interpretation seems to accept that a service can lie somewhere between the service of principal purpose and ancillary and largely unimportant services, without precluding the possibility that some ancillary and largely unimportant services might be taxed together with a service of principal purpose; which, in turn, permits considerations paid under such contracts to be broken down into fewer parts.[58] Although this interpretation may lower the administrative burden on taxpayers and tax administrations, it does not seem to find support in a strict, literal interpretation of the wording of the Commentaries and, hence, is not supported.

In conclusion, it is argued that only the strict, literal interpretation of the Commentaries should be recognized, implying that unified taxation should be applied only if a contract has *one* principal purpose and *all* other parts of the contract are ancillary and largely unimportant.

56. Para. 11.6 *OECD Model: Commentary on Article 12* (2017). Similarly, in the rationale for suggesting changes to the wording of this Commentary provided by the Technical Advisory Group in *Tax Treaty Characterisation Issues*, *supra* n. 48, at para. 47, it is stated that the exemption of unifed taxation implies that "the treatment applicable to the principal part should generally be applied to the whole consideration".

57. *Tax Treaty Characterisation Issues*, *supra* n. 48, at para. 48, stating that some members "noted that where as a commercial matter the transaction should be regarded as a single transaction, an obligation to break down the payments involved in these transactions would impose an unreasonable compliance burden on taxpayers, especially for consumer transactions that involve relatively small amounts of money". *See also* Requena, *supra* n. 2, at p. 416, who observes that this mode of interpretation is possible, but agrees that it is not within the scope of the Commentaries.

58. *See*, e.g. Requena, *supra* n. 2, at p. 416, where the author states that "[a] contract might include various main services with their corresponding ancillary services, and each of these would be attributed the same tax characterization as the main service to which they are linked".

However, under either approach, it may be rather difficult in practice to distinguish the principal element from the auxiliary and largely unimportant element(s). Still, the analysis may have important practical consequences.[59] For example, if the contract is subject to unified taxation and if one contractual element, i.e. the principal part, gives rise to withholding tax, the whole payment will be subject to withholding tax; conversely, if the contract can be split, withholding tax will only applies to part of the consideration.

The Commentary on Article 12 of the OECD Model (2017) appears to provide an example of transactions including an apparent principal purpose as well as an ancillary and largely unimportant part, i.e. the acquisition of a program copy whereby the user is allowed to copy the program onto the user's computer hard drive or for archival purposes.[60] It is stated that even though copying the program would generally require the use of a right protected by copyright law, making an archival copy is an essential step in utilizing the program. However, rights in relation to these acts of copying should, when they do no more than enable the effective operation of the program by the user, be disregarded in analysing the character of the transaction for tax purposes; this element should be regarded as an ancillary and largely unimportant part of the transaction. The argument is that it is not the protected right that is licensed to the user, but rather a product made available with the use of the protected right: the payment in such transaction is essentially for the product and not for the use of the protected right.[61] This analysis seems to be based on the understanding that if an element constitutes only a necessary practical or technical condition for carrying out the principal purpose of the contract, that element should be regarded as an ancillary and largely unimportant part of the transaction. However, no further guidance is given in the Commentary.

Because neither article 12 of the OECD Model (2017) nor its Commentary gives sufficient guidance in respect of when mixed contracts should be subject to unified taxation, it is necessary to have recourse to domestic tax law, in accordance with article 3(2) of the OECD Model (2017), for interpretative guidance. As noted in section 1., article 3(2) provides that, in the application of the model at any time by a contracting state, any term not defined therein shall, unless the context otherwise requires, have the meaning that it has at that time under the law of that state for the purposes of the taxes to which the OECD Model (2017) applies.[62] Moreover, it is stated there that the meaning under the applicable tax laws of a state should prevail over any meaning given to the term under other laws of that state.

However, there seems to be little guidance in domestic tax laws. An indication of this is that the issue of classifying mixed contracts is addressed in the relevant volume of *Cahiers de droit fiscal international* only by the authors of the chapters on Austria, Denmark and

59. Bal (2014), *supra* n. 27, at p. 516.
60. Para. 14 *OECD Model: Commentary on Article 12* (2017).
61. Id. For case law, *see*, e.g. IN: Income Tax Appellate Tribunal (ITAT), 22 June 2005, *Ericsson Radio Systems AB, Motorola Inc. and Nokia Networks OY v. Deputy Commissioner of Income Tax*, [2005] 95 ITD 269 (Delhi) (SB), Case Law IBFD; and IN: ITAT, 19 Dec. 2008, *Infrasoft Ltd. v. ADIT (International Tax)*, ITA 847/Del/2008, Case Law IBFD. Similar arguments are put forward in M. Valta, *Income from Royalties*, in *Klaus Vogel on Double Taxation Conventions*, pp. 968 and 1015 (4th ed., E. Reimer & A. Rust eds., Wolters Kluwer Law and Business 2015).
62. As stated in section 1., it should be noted that the reference to "that state" in art. 3(2) OECD Model is unclear. It is not specified whether what is referred to is the domestic law of the domicile state, the domestic law of the source state or the domestic law of the state applying the OECD Model. Further, there is no agreement in the international tax literature on this matter: *see* e.g. Engelen, *supra* n. 15, at p. 473 et seq.

Finland.[63] Yet, these countries do not seem to have domestic principles regarding whether to break down or integrate mixed contracts. Instead, the national branch reporters state that the most appropriate course to take with a mixed contract is to follow the Commentaries on the OECD Model (2017), which, as already stressed, in fact give little guidance in this respect.

As the legal sources provide insufficient clarification and guidance, it is relevant to analyse the related international tax literature, i.e. on mixed cloud computing contracts as well as mixed contracts unrelated to cloud computing.[64]

3.1.1.2. Mixed contracts in the international tax literature on cloud computing

The uncertainties emphasized in this article regarding mixed contracts have been subject to debate in the international tax literature on cloud computing-as-a-service; yet, no author has been able to provide a final conclusion, and, therefore, no generally accepted approach seems to have been agreed upon.

Bal analyses a fictive contract for SaaS (most likely based, in turn, on IaaS; *see* section 2.1.) incorporating (i) access to a tax information database; (ii) the use of accounting software; (iii) the storage of business records; and (iv) support services. Bal seems to support the first of the interpretations mentioned in section 3.1.1.1., i.e. that there can be only one principal purpose and that all other parts of the contract must be of an ancillary and largely unimportant character. Furthermore, she argues that when determining whether to apply unified taxation, the decisive factor should be whether the services are "inherently linked". Without elaborating on whether this should be understood from a technical, practical and/or commercial perspective, Bal seems to find that, in contracts such as the one she discusses, the strongest arguments are that the listed services are typically not inherently linked, as the components could be purchased separately. On this basis, the author finds that such contracts should generally be broken down.[65]

Requena analyses a somewhat similar fictive contract combining SaaS and IaaS, containing (i) access to a commercial database hosted on the servers of the CCSP; (ii) the use of accounting software in the cloud infrastructure; (iii) a data storage service; and (iv) a technical assistance service. Requena supports the second and less strict of the interpretations mentioned in section 3.1.1.1., i.e. that there may be more than one principal element of a contract.[66] He also seems to find that the strongest arguments lead to considering the principal purpose of the contract to be (i) access to a commercial database or (ii) the use of accounting software, and that the other services should be considered ancillary. The argument is that (iii) data storage and (iv) technical assistance are "linked" to (i) the commercial

63. V. Daurer & M. Jann, *Austria*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* pp. 24-25 (IFA Cahiers vol. 103B, 2018), Books IBFD; J. Bundgaard, *Denmark*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 20 (IFA Cahiers vol. 103B, 2018), Books IBFD; and E. Karhu, *Finland*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 22 (IFA Cahiers vol. 103B, 2018), Books IBFD.

64. It should be stressed that literature produced by scholars is not considered to have legal value in itself, but merely provides interpretational inspiration in the absence of valid legal sources.

65. Bal (2014), *supra* n. 27, at p. 516. Without explicitly stating it, Bal supports the strict literal interpretation as the determining factor in her analysis as to whether the residual services may *all* be considered ancillary and largely unimportant; if not, this would justify the treatment of all of the services on an individual basis.

66. Requena, *supra* n. 2, at p. 416.

database and (ii) the accounting software, respectively, as the storage service "permits" the customer to store accounting data and information extracted from the commercial database, while the technical assistance is "clearly linked" to the software.[67]

The findings of Bal and Requena neatly illustrate that the analysis of mixed contracts is highly fact-dependent, and, in this respect, it should be acknowledged that the somewhat different results may be due to the very limited facts provided in the fictive contracts. However, if conclusions may be drawn on this basis, it seems that Bal has a general rule that mixed contracts should be broken down and made subject to the appropriate tax treatment, including classification, unless they are inherently linked – presumably from a technical and practical perspective, as the determining factor is whether the components could be purchased separately – and the non-principal services are all of an ancillary and largely unimportant character. On the other hand, Requena seems to apply a lower bar for services to be taxed together with the principal purpose(s) of a contract, arguing that associated services (e.g. data storage, which permits the customer to store accounting data and information extracted from the commercial database, as well as technical assistance linked to the accounting software) should be classified based on the principal service(s). Although it seems as though the two authors apply the term "linked" at somewhat different levels, they both nevertheless seem to focus on whether the services are technically or practically linked despite this not being explicitly mentioned as a determining factor in the Commentary on Article 12 of the OECD Model (2017). However, as previously argued, somewhat similar criteria may be deduced from the example of copying computer programs onto the users' hardware for archival purposes. Hence, the inclusion of practical as well as technical perspectives seems relevant in the analysis of mixed contracts. The result of adopting such perspectives is likely to be that cloud computing contracts should, in practice, be broken down based on information contained in the contract or by means of reasonable apportionment. This applies especially in situations in which users, technically and practically, may (de)select certain non-predominant services or purchase them separately, as this indicates that these services are not ancillary and largely unimportant. Subsequently, the apportioned parts of the consideration should receive the appropriate tax treatment, including classification.

Requena further argues that a fictive contract combining SaaS and IaaS, by providing a customer with access to online software as well as space to store data on the servers of the CCSP, could constitute two "inseparable" services (presumably similar to inherently linked services) if the data that the customer can store is a "direct consequence of access to the software in the cloud". In this case, Requena argues that the access to the software would be the principal service, and its classification would therefore be transferable to the data storage service. Conversely, he argues that if the two services are "totally independent", the income derived from each service should be subject to the appropriate tax treatment, including classification of each service individually.[68]

Somewhat similarly, Heinsen and Voss argue on the basis of a fictive contract that provides access to certain software applications which are hosted and used within the cloud and by which the user's data is transmitted to the CCSP to be processed using the CCSP's infrastructure; hence, the contract combines SaaS and IaaS. The authors argue that the nature

67. Id., at p. 417.
68. Id., at p. 417.

of SaaS is that the software is operated within the IT infrastructure of the CCSP; hence, the IaaS element is inherently part of SaaS, i.e. "inherently linked", and consequently does not represent a separate part of the agreement.[69] Conversely, Heinsen and Voss argue that if a contract provides the user with the (theoretical) option to use an IT infrastructure other than the IaaS provided by the SaaS provider, it would be questionable to consider the IaaS as ancillary and largely unimportant. Thus, the fact that the provision of the content is, in this case, not "inherently linked" to the IT infrastructure of the provider seems to suggest that there are two separable services, which should be given the appropriate tax treatment, including classification of each service individually.[70]

In determining whether mixed cloud contracts provide access to a software application as well as an IT infrastructure and space to store data from the software on the servers of the CCSP, Requena, as well as Heinsen and Voss, seem to have a strict technical perspective: if the two components may be separated technically, they constitute separate components subject to separate classification and taxation. As stated above, the Commentaries on the OECD Model (2017) also seem to adopt a technical perspective in the analysis of mixed contracts. Therefore, in contracts including only (predominant) software and storage capacity within the provider's IT infrastructure – at least when it is not possible to store the data from the application on an IT infrastructure other than the CCSP's – such contracts are likely to be subject to unified taxation according to the taxation of the use of the application.

3.1.1.3. Interpretative guidance on mixed contracts unrelated to cloud computing

Even though it goes beyond the scope of this article to provide an exhaustive analysis of all aspects of mixed contracts in general, it is relevant to investigate whether certain general principles discussed in the international tax literature in respect of mixed contracts unrelated to cloud computing may be relevant to cloud computing contracts.

In this respect, it may be noted that legal scholars have suggested that when intellectual property is transferred and some support service is necessary (e.g. the information is not put into writing or is not self-explanatory), the support service can be disregarded as ancillary, whereas additional training would constitute a separate service.[71] Accepting this suggestion implies that cloud computing contracts including (predominant) online application software, storage capacity within the CCSP's IT infrastructure and technical support services not constituting training in the use of the software are likely to be subject to unified taxation according to the taxation of the use of the application.

Moreover, as a rough indicator, it has been suggested that the more asymmetric the overall technological level between the transferer and transferee is, the more likely it is that that support services should be regarded as separate services.[72] This seems to argue that the dis-

69. Heinsen & Voss, *supra* n. 2, at p. 591.
70. Id.
71. Valta, *supra* n. 61, at p. 1014. *See also* A. García Heredia, *Who Knows the Riddle of Know-How? Spain Becomes Entangled in the Web of Intangibles*, 45 Eur. Taxn. 3, p. 110 (2005), Journal Articles & Papers IBFD, who argues that when know-how is transferred, "technicians and experts must often visit the installation where the know-how is to be used. These technicians and experts must train the staff and educate them as to how to use the secret knowledge. This does not mean that the technical assistance is the principal part of a know-how contract, but, rather, that it is something required to use the know-how properly".
72. Valta, *supra* n. 61, at p. 1014. *See also* García Heredia, *supra* n. 71, at p. 110: "It is possible that the supply of technical assistance only has an ancillary character because the transferee can arrange for the exploita-

tinction between principal and ancillary elements should not only be based on a technological and practical perspective, but should also include a somewhat commercial perspective. However, it would seem unreasonable – and an excessive administrative burden to put on the taxpayers and tax administrations – if two identical contracts entered into between the CCSP and two unrelated users with different technological levels should not be treated alike regarding whether or not to apply unified taxation. A solution in which the more commercial perspective is still taken into account would be to assess the differences at the technological level between the CCSP and a typical user of the goods or services. This will be elaborated further below.

Finally, formal aspects may, in some countries, be of relevance; hence, a separate charge[73] or a separate section of the contract[74] may be an indicator of separate services. However, as these formal aspects can be arranged rather freely, they should not be regarded as decisive criteria, but should merely be taken into account in the analysis.

As the above analysis of the Commentaries on the OECD Model (2017) and the international tax literature shows, there is no clear guidance on how to determine the roles played by the various services provided in a cloud computing contract. However, the analysis of mixed contracts should proceed on a case-by-case basis and be founded on information contained in the contract. The majority of legal scholars seem to find that the decisive criterion is whether the services are inherently linked or whether they may be "technically" separated. This seems to be in line with the example provided in the Commentaries on the OECD Model (2017) and, hence, this interpretation is supported.

However, instead of focusing (only) on whether the services are technically inherently linked, another option could be also to consider whether each of the services supplied under a mixed contract for a typical cloud computing user constitutes an aim in itself or, alternatively, a means of better enjoying the principal service supplied under the mixed contract. This user perspective seems to find support in the example provided in the Commentaries, where it is stated that the use of copyright is not important for classification purposes because it does not correspond to what the payment is essentially in consideration of.

Such an approach is known from the case law of the Court of Justice of the European Union with regard to VAT.[75] Specifically, the Court has stated that it follows from article 2 of the

tion of the know-how [i.e. know-how would be the main part of the contract]. It may also, however, be the case that the transferor must provide major technical assistance because the transferee does not have sufficient technology to use the transferred know-how on his own [i.e. technical assistance may have great importance]."

73. Valta, *supra* n. 61, at p. 1014, with reference to CN: State Administration of Taxation (SAT), Notice on Certain Issues Concerning the Implementation of Articles on Royalties in Tax Treaties, *Guoshuifa* 2009-507 (14 Sept. 2009). However, as Valta also notes, A. Cai & J. Hong, *New Developments on the Taxation of Technology-Related Transactions*, 16 Asia-Pac. Tax Bull. 4, sec. 2.3. (2010), Journal Articles & Papers IBFD state that "if the services do not constitute a permanent establishment (PE) in China, the service fees shall be treated as royalties regardless of whether they are charged separately or included as part of the technology licensing fees".

74. Heinsen & Voss, *supra* n. 2, at p. 591, with reference to DE: *Bundesfinanzhof* (BFH) [Federal Tax Court], 15 June 1983, BStBl. II 1984: 17. According to the Court, separate sections in the contract indicated that the contracting parties considered the different parts of the service to be legally independent from one another. However, as the authors note, much time has elapsed since the decision; thus, it cannot be excluded that the Court would arrive at a different conclusion today.

75. *See*, inter alia, UK: ECJ, 25 Feb. 1999, Case C-349/96, *Card Protection Plan Ltd v. Commissioners of Customs and Excise*, [1999] ECR I-0973, paras. 29-30, Case Law IBFD, where it is stated that "[a] service must be regarded as ancillary to a principal service if it does not constitute for customers an aim in itself,

Sixth VAT Directive[76] that every transaction must normally be regarded as a distinct and independent transaction. However, when two or more services supplied to a *typical* consumer are so closely linked that they – from the perspective of a *typical* consumer – form, objectively, a single, indivisible economic supply (which it would be artificial to split), it should be regarded as a single supply for VAT purposes.[77] This would seem to imply that mixed contracts – by which the typical cloud user acquires SaaS or PaaS for the purpose of using an application or an operating system, respectively, and is not interested in or focused on how the underlying layers work – should be regarded as a single supply even when the principal purpose and ancillary services are not inherently linked from a technical perspective. Conversely, where separate services are an "add-on" and not merely a means of better enjoyment of the predominant service provided, these cannot be regarded as ancillary and largely unimportant in the contract.

However, given the differences between tax treaty law and VAT law within the European Union, as well as the differences in the wording included in the Commentaries on the OECD Model (2017) and EU case law, the legal basis for obtaining inspiration in this way is highly uncertain, which, naturally, should be taken into account. Nonetheless, in respect of cloud computing provided as a service, it can be argued that, in the typical examples of SaaS or PaaS delivered in combination with IaaS, the application or the operating system is rarely separable from the underlying cloud infrastructure. Further, it can be argued that the primary aim of entering into such a contract for the *typical* cloud user is the use of the application or the operating system, and that such a user would see IaaS as a means of better enjoying these. Similarly, limited technical support services, as an alternative to a long-winded user manual, will typically be regarded as a means of better enjoying the application or the operating system. Hence, the consideration payable under such contracts should be classified as the consideration for the application or the operating systems, i.e. the principal element of the contracts. Conversely, it can be argued that additional services, such as technical assistance services specifically requested by the user, should be treated as separate services if they go beyond what is necessary to transfer the software or data. Similarly, separate applications unrelated to the predominant application or equally essential applications should not be subject to unified taxation, and hence, the contract should be broken down into the various services.

3.1.1.4. Preliminary findings on mixed contracts

Summarizing the above analyses, it is argued that only the strict, literal interpretation of the Commentaries should be recognized, implying that unified taxation should be applied only if a contract has *one* principal purpose and *all* other parts of the contract are ancillary and largely unimportant. Determining the principal service as well as the ancillary and largely

but a means of better enjoying the principal service supplied", with reference to UK: ECJ, 22 Oct. 1998, Joined Cases C-308/96 and C-94/97, *Commissioners of Customs and Excise v. T.P. Madgett, R.M. Baldwin and the Howden Court Hotel*, [1998] ECR I-6229, para. 24, Case Law IBFD.

76. Sixth Council Directive 77/388/EEC of 17 May 1977 on the harmonization of the laws of the Member States relating to turnover taxes – Common system of value added tax: uniform basis of assessment, art. 2, OJ L145 (1977), Primary Sources IBFD.

77. *See* e.g. DE: ECJ, 19 July 2012, Case C-44/11, *Finanzamt Frankfurt am Main V-Höchst v. Deutsche Bank AG*, paras. 20-21, Case Law IBFD; DE: ECJ, 10 Mar. 2011, Joined Cases C-497/09, C-499/09, C-501/09 and C-502/09, *Finanzamt Burgdorf v. Manfred Bog*, para. 53, Case Law IBFD; and NL: ECJ, 19 Nov. 2009, Case C-461/08, *Don Bosco Onroerend Goed BV v. Staatssecretaris van Financiën*, para. 37, Case Law IBFD.

unimportant services under a mixed contract is complex; however, it is important because, in practice, if only some elements may give rise to withholding tax, this may result in different tax liabilities in the user jurisdiction and the state of residence of the CCSP. The regime governing mixed contracts and, consequently, most cloud computing contracts is a source of legal uncertainty for taxpayers as well as tax administrations. It has been argued that the determining factor is whether the services are "inherently linked"; however, clarification on this point would be welcomed.

3.1.2. Royalties or business income

Once it has been determined whether the cloud computing contract should be subject to unified taxation or broken down, the relevant portions of the consideration should be classified. For the purpose of structuring this section, and in line with the conclusions drawn in section 3.1.1., the following simple scenarios of inherently linked cloud computing services will be assumed:

- SaaS contracts in the form of a word processing application, hosted as well as performed within the cloud and in which the user's data is transmitted to the CCSP to be processed using the CCSP's infrastructure, subject to unified taxation and classified according to the predominant service, i.e. access to a word processing application with which users can create documents;
- PaaS contracts in the form of a platform and operating system, hosted as well as performed within the cloud and in which the user's data is transmitted to the CCSP to be processed using the CCSP's infrastructure, subject to unified taxation and classified according to the predominant service, i.e. the use of the platform and operating system to create applications; and
- IaaS contracts in the form of storage capacity within the CCSP's virtual and physical IT infrastructure, subject to unified taxation and classified according to the predominant service, i.e. the provision of storage capacity on the CCSP's servers.

It should be recalled that the classification of payments for tax treaty purposes should be based on a thorough understanding of the specific transaction, including the specific terms of the contract concluded and, in particular, any references to intellectual property rights.[78] Hence, the classification of the payment may, in practice, vary according to these terms. Nonetheless, the most important classification issue that arises – assuming that all payments received by the CCSP are received in the course of carrying on a business – is typically the distinction between business income and royalties, corresponding to article 7 and article 12 of the OECD Model (2017), respectively.[79] In assessing this, it must be remembered that article 7 is secondary to article 12 in cases in which an enterprise does not carry on its business through a PE in the user jurisdiction. Accordingly, it must first be considered whether the payments received by the CCSP should be classified as royalties. Furthermore, it should be noted that the definition of royalties varies across bilateral tax treaties, although it is often inspired by the definition of royalties included in article 12(2) of the OECD Model (2017):

78. OECD Committee on Fiscal Affairs, *The Tax Treatment of Software*, sec. 27 (OECD 2000), Primary Sources IBFD; *see also* Bal (2014), *supra* n. 27, at p. 516.
79. The Technical Advisory Group, in *Tax Treaty Characterisation Issues*, *supra* n. 48, at p. 4, argues that this is generally the case in respect of payments for digital services.

> [P]ayments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.[80]

Even though cloud computing is not explicitly mentioned in the wording of the definition and the definition has been argued to be exhaustive, it is, according to article 3(2) of the OECD Model (2017), the domestic tax law of the state that is decisive when interpreting the scope of the intellectual rights and experiences included in the definition, unless the context requires otherwise (*see* section 1.).[81] The fact that neither the definition in article 12(2) of the OECD Model (2017) nor its Commentary explicitly includes cloud computing increases uncertainty for both taxpayers and tax authorities, although such uncertainty is not uncommon with regard to digital services.

The word "payments" used in the definition should be interpreted broadly as requiring only the fulfilment of an obligation to put funds at the disposal of the creditor in the manner required by contract or by custom.[82] Consequently, payments do not need to be monetary in order to fall within the scope of the definition; hence, data provided by users as required under the terms and conditions of a CCSP could be regarded as a "payment" and potentially classified as a royalty, as user data constitutes a benefit with monetary value for the recipient.[83] However, the classification of such payments as royalties remains subject to the cash and/or benefits being provided in return for the use of, or the right to use, the specific assets or information included in the definition in article 12(2).

3.1.2.1. Classification of payments for SaaS: Online application software

As discussed in section 2.1., SaaS, in simplified terms, provides the user with the capability to use a CCSP's applications through a thin interface, e.g. a web browser in the case of a web-based email. Traditionally, application software is provided by transferring a copy to the user, e.g. by downloading it onto the hardware of the users' devices. In contrast, SaaS consists of application software running within the infrastructure of the CCSP, with the users accessing the application software via the Internet, which seems to limit the user's control and disposition over the application software. Despite this difference, the Commentaries on the OECD Model (2017) concerning software appear suitable for classifying payment in return for SaaS, as they state that the method of transferring software to

80. Art. 12(2) *OECD Model* (2017).
81. C.P. du Toit, *Beneficial Ownership of Royalties in Bilateral Tax Treaties* p. 36 (IBFD 1999), Books IBFD. As stated in section 1., it is the approach taken in this article that the renvoi method, as provided for in article 3(2) of the OECD Model, should only be applied if the relevant term is not defined in the tax treaty or its co-text based on a strict and autonomous interpretation, and cannot be determined based on a purposive and contextual interpretation of the strict and broader context. Furthermore, as problematized by e.g. Baker, *supra* n. 13, at pp. 24-25, the renvoi method gives no guidance as to whether it is the domestic tax law of the domicile state, the source state or the state applying the tax treaty; as a result, instances of double taxation and double non-taxation may occur.
82. Para. 8.3 *OECD Model: Commentary on Article 12* (2017).
83. Valta, *supra* n. 61, at p. 993. The value of data has been highly debated over the last year: *see*, e.g. Becker & Englisch, *supra* n. 3, at p. 161 et seq. In addition, the cashless transaction of user data in exchange for free access to online intermediary platforms is discussed in L.F. Kjærsgaard & P.K. Schmidt, *Allocation of the Right to Tax Income from Digital Intermediary Platforms: Challenges and Possibilities for Taxation in the Jurisdiction of the User*, 2018 Nordic Journal of Commercial Law 1 (2018).

the user is not relevant.[84] Furthermore, both operating software and application software[85] are generally included among the intellectual property listed in the definition of royalties in article 12(2) of the OECD Model (2017), although, in accordance with article 3(2) of the OECD Model (2017) and its Commentary, this should be assessed according the domestic copyright law of the contracting states.[86]

The classification of payments for the use of software depends on the nature of the rights that the user acquires under the particular arrangement with regard to the use and exploitation of the program, ranging from the mere use of the software to the transfer of complete rights regarding the software.[87] According to the Commentaries on the OECD Model (2017), the use of software in a manner that, in the absence of an agreement, would constitute an infringement of a copyright, would imply that any payment for such a right should be classified as a royalty.[88] However, if the rights acquired in relation to the software are limited to those necessary in order to enable the user to operate the program (which is an essential step in utilizing the software) payments in such cases should be classified as business income under article 7 of the OECD Model (2017).[89]

In relation to the use of rights protected by copyright law, SaaS, as stated above, generally does *not* imply a physical transfer, such as a download of the application software onto the user's hard drive. In other words, when users access the cloud, the underlying codes of the software are generally *not* copied onto the users' devices, as it is the (copy of the) software on the CCSP's virtual and physical servers that is being utilized by one or multiple users. Hence, in many countries, this should not constitute an infringement of a copyright, as the software is neither distributed nor reproduced.[90] In addition, the user of an application on the CCSP's virtual and physical servers generally acquires no information about the ideas and principles underlying the application, such as its logic, algorithms or programming languages or techniques. Consequently, such payments should not be classified as royalties, as

84. Para. 14.1 *OECD Model: Commentary on Article 12* (2017); and Heinsen & Voss, *supra* n. 2, at pp. 585-586.
85. Thus, in para. 12.1 *OECD Model: Commentary on Article 12* (2017), software is described as "a program, or series of programs, containing instructions for a computer required either for the operational processes of the computer itself (operational software) or for the accomplishment of other tasks (application software)".
86. Id., at para. 12.2, observes that research into the practices of OECD member countries has established that all but one of them protects rights in computer programs either explicitly or implicitly under copyright law.
87. Id.
88. Id., at para. 13.1.
89. Id., at paras. 14, 17.2 and 17.3. The *UN Model Double Taxation Convention between Developed and Developing Countries: Commentary on Article 12* (1 Jan. 2017), Treaties & Models IBFD has adopted a broader approach with regard to the scope of the term "royalties". As also argued by D. Castro, *Taxation of Software Payments: Multi-Jurisdictional Case Law Analysis*, 73 Bull. Intl. Taxn. 3, p. 116 (2019), Journal Articles & Papers IBFD, even payments in return for the strict use of a program for personal or business use or enjoyment may constitute royalties. Hence, para. 17.4 specifies that "some members of the Committee of Experts are of the view that the payments referred to in paragraphs 14, 14.1, 14.2, 14.4, 15, 16, 17.2 and 17.3 of the OECD Commentary may constitute royalties". As also noted by Castro, these paragraphs refer to (i) general end-user licences, regardless of the method of transfer; (ii) site, enterprise and/or network licences; (iii) distribution intermediaries; (iv) the transfer of full ownership of the copyright of software; (v) the transfer of geographically limited and time-limited rights; (vi) user copyright limited to backup or operation purposes; and (vii) user copyright limited to download for own use or enjoyment.
90. L. Determann, *What Happens in the Cloud: Software as a Service and Copyrights*, 29 Berkeley Tech. L. J. 2, pp. 1105-1108 (2015) and T.D. Fuller & B.W. Reynolds, *United States*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* pp. 25-27 (IFA Cahiers vol. 103B, 2018), Books IBFD, state that a normal Software-as-a-Service (SaaS) transaction conveys to the customer no legally protectable rights to the software itself, nor any rights to the servers on which the software runs.

they do not represent a consideration for the use of or the right to use the software; instead, SaaS should, in these situations, be regarded as the provision of a service using a copyright. Finally, the image of the graphical user interface that is reproduced on the users' devices could, in some situations, be copyright protected, but even in this case, it seems likely that the reproduction of the image should be regarded as a necessary and essential step in the utilization of the software in conjunction with the machine on which it is installed (i.e. the CCSP's virtual and physical servers) and used in no other manner.[91] On this basis, it is argued that such use of a copyright in the course of providing SaaS should be regarded as merely the means by which the digital signal is captured. According to the Commentaries on the OECD Model (2017), such uses of copyright – i.e. limited to those necessary to enable the user to operate the application – are not important for classification purposes because they do not correspond to what the payment is essentially in consideration for.[92] These payments should therefore generally be classified as business income under article 7 of the OECD Model (2017).

In line with this conclusion, the Brazilian federal tax authorities issued a ruling regarding the classification of SaaS acquired from a foreign CCSP.[93] The SaaS packages concerned were not made exclusively for Brazilian residents and could be accessed by users through the Internet, from any device, with the use of a password. One SaaS package provided protection of users against viruses, spam and other threats, while another allowed conferences, meetings and training sessions in real time. According to the Brazilian tax authorities, payments in return for these services were not to be classified as royalties, since (i) the user did not acquire the software and had no power over the computer infrastructure or any power to modify the available programs; and (ii) the user was only granted the right to remotely access the resources. Instead, the Brazilian tax authorities classified the relevant payments as service income – more specifically, as payment for a technical service (subject to withholding tax for Brazilian tax purposes) – as the functioning of the software was handled by the CCSP and the services were rendered by means of automated structures requiring maintenance and technical support using specific technical knowledge.

Based on the classification of payments for SaaS as payments for technical services in this Brazilian case, it is argued in this article that special consideration should be made in respect to the classification of payments for SaaS for tax treaty purposes if the applicable tax treaty (typically with a developing country) includes, in its definition of royalties, "payments […] for the provision of technical services or technical assistance".[94] Such services,

91. Under EU copyright law, only the creative elements of computer programs are protected, i.e. not functionality, technical interfaces, programming language or data file formats: *see* Council Directive 2001/29/EC of 22 May 2001 on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society, art. 1(2), OJ L167 (2001); and also, e.g. UK: ECJ, 2 May 2012, Case C-406/10, *SAS Institute Inc. v. World Programming Ltd*, para. 46, in which the Court stated that "neither the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of that directive". US copyright law contains somewhat similar provisions, pursuant to 17 USC § 102(a)-(b). *See also* Determann, *supra* n. 90, at p. 1114.
92. Paras. 17.2 and 17.3 *OECD Model: Commentary on Article 12* (2017).
93. BR: RFB *Solução de Consulta* [Tax Ruling] 2017-191 (23 Mar. 2017). *See also* M. Formenti & E. Trouw, *Brazil*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 22 (IFA Cahiers vol. 103B, 2018), Books IBFD.
94. Valta, *supra* n. 61, at p. 1018, states that such clauses can be found in the treaty practice of, inter alia, Argentina, Brazil, Gabon, Ivory Coast, the Philippines, Thailand, Tunisia and Vietnam.

however, are not treated as royalties under article 12 of the OECD Model (2017) and, consequently, the Commentaries do not provide any guidance on which services should be regarded as technical services or technical assistance.

Despite divergent domestic practice, it has been argued in the international tax literature that there is no discernible or practical difference between technical services and technical assistance.[95] Different from the provision of know-how, the provider of technical services or technical assistance uses special knowledge in the provision of services but does not transfer this special knowledge to the recipient. Whether "technical" should be understood strictly in the context of know-how, industrial intellectual property and secrets or as having a wider meaning is debated in the international tax literature.[96] However, it would seem to be in line with the general rules of interpretation in the Vienna Convention and article 3(2) of the OECD Model (2017) to interpret "technical" in the context of the overall definition of royalties in article 12(2) of the OECD Model (2017) prior to making reference to national law as per the renvoi method, and hence not to allow payments for a wider form of technical services to be classified as royalties.[97] In other words, as the other elements included in the same definition indicate that the payment has to be for something "extraordinary" – i.e. special knowledge and experience unrevealed to the general public, and not familiar skills – a similar requirement should apply in respect of "technical". Nonetheless, on this basis, it cannot be precluded that some payments for SaaS may be classified as technical services – and thereby as royalties – under bilateral tax treaties that include technical services or technical assistance in their definition of royalties.

Consequently, taking the Commentaries on the OECD Model (2017) as a source of legal interpretative value, most payments for SaaS should not be classified as royalties under article 12 of the OECD Model (2017), but instead as business income under article 7, as the consideration will generally not be for the right to use the copyright, but for a service provided through the use of a copyright. However, payments for SaaS provided by use of special knowledge, classified as know-how, could fall within the scope of definitions of royalties that include payments for technical services or technical assistance. As stated, such definitions are found primarily in tax treaties with developing countries.

3.1.2.2. Classification of payments for PaaS – Operating systems

As discussed in section 2.1., PaaS offers the user a platform and programming tool that supports the creation and use of application codes with whatever capabilities may be required by the user. Hence, PaaS is targeted primarily at application developers and consists, inter alia, of diverse application software infrastructure (middleware) capabilities and operating systems.

95. M.S. Screpante, *Cross-Border Software Transactions from a Technology Importing Country Perspective: The Case of the Argentina-Germany Income and Capital Tax Treaty (1978)*, 67 Bull. Intl. Taxn. 9 (2013), Journal Articles & Papers IBFD argues for a differentiation between technical services and technical assistance. For the opposite view, *see* Valta, *supra* n. 61, at p. 1018.
96. *See* Valta, *supra* n. 61, at pp. 1019-1021, where the author summarizes and discusses the various views.
97. *See* id., at pp. 1020-1021, where the author argues similarly. However, A.P. Dourado et al., *General Definitions*, in *Klaus Vogel on Double Taxation Convention* pp. 211-213 (4th ed., E. Reimer & A. Rust eds., Wolters Kluwer Law and Business 2015) argue against a systematic preference for interpretation from the context over interpretation by reference to national law.

In a similar manner to SaaS, the platform and programming tools are run within the infrastructure of the CCSP and users access the platform via the Internet, thus limiting the users' control and disposition of the programming tools and the operating system. However, as the components in PaaS also are forms of software, i.e. operational software, the Commentaries on the OECD Model (2017) concerning software seem suitable for classifying payments for PaaS as well. This is based on the same arguments applied in the case of SaaS, i.e. that the method of transferring software to the user is, according to the Commentaries on the OECD Model (2017), not relevant.[98] Hence, if the use of platform and programming tools in the absence of an agreement would constitute an infringement of a copyright, any payment in consideration for such use should, as a starting point, be classified as a royalty. However, as the platform and programming tools are run within the infrastructure of the CCSP and the users access the platform via the Internet, no copy of the platform and programming tools is made. In addition, the users of the platform and programming tools on the CCSP's virtual and physical servers acquire little or no information about the ideas and principles underlying the platform and programming tools, such as their logic, algorithms or programming languages or techniques. Finally, the image of the graphical user interface reproduced on the users' computers is unlikely to be copyright protected.[99]

It should be noted that a majority of the members of the Committee on Fiscal Affairs found that "the right to use", as referred to in the definition of royalties in article 12(2) of the OECD Model (2017), should be interpreted narrowly and limited to use by an acquirer who seeks to "exploit commercially the intellectual property of another".[100] Hence, if PaaS is received for the purpose of developing an application that is then commercialized (e.g. as SaaS for internal business purposes) or provided to third-party users, it could be argued that the payment for PaaS should be classified as royalty income.[101] However, as it seems not to be the intellectual property itself that is commercially exploited by the acquirer of PaaS, but instead the services provided using the intellectual property, it may be concluded that whether PaaS is acquired for commercial purposes or for personal purposes should generally not influence the classification of payments for PaaS. Furthermore, it seems untenable that the classification of identical payments from different users, or from the same user over time, should vary depending on whether the service is or is not commercially exploited by the user.

Accordingly, considering the Commentaries on the OECD Model (2017) as a source of legal interpretative value, payments in these situations should probably not be classified as royal-

98. Para. 14.1 *OECD Model: Commentary on Article 12* (2017); and Heinsen & Voss, *supra* n. 2, at pp. 585-586.
99. Under both EU and US copyright law, only the creative elements of computer programs are protected, i.e. not functionality, technical interfaces, programming language, or data file formats; *see supra* n. 91.
100. OECD Committee on Fiscal Affairs, *supra* n. 78, at sec. 44.
101. *See*, e.g. Daurer & Jann, *supra* n. 63, at pp. 24-25, who state that, from an Austrian perspective, payments for digital content used for private/non-business purposes are usually not classified as royalties, but that a commercial exploitation could change this. Similarly, D. Schäfer, *Singapore*, in *Withholding tax in the Era of BEPS, CIVs and the Digital Economy* p. 20 (IFA Cahiers vol. 103B, 2018), Books IBFD, states that it is relevant to know whether cloud computing is used commercially by the user. Schäfer illustrates this position with a case discussed by the Singaporean tax authorities involving the use of portals such as Bloomberg or Lexis-Nexis, in which the tax authorities state that if the information is used internally as background information, it will not be considered "owned" by the Singapore user and the payment should not be subject to withholding tax (which likely refers to the payment not being classified as royalties). If, on the other hand, the information is used for commercial purposes, e.g. by quoting this information in reports to clients, the payment will indeed be subject to withholding tax (and therefore likely classified as royalties).

ties under article 12 of the OECD Model (2017), as they do not represent consideration for the use of or the right to use. Instead, PaaS should generally be treated as the provision of a service using a copyright, and hence classified as business income under article 7 of the OECD Model (2017). However, as also stated in relation to SaaS, special attention should be paid to whether the applicable tax treaty includes technical services or technical assistance within its definition of royalties and whether the technical knowledge used by the CCSP to deliver PaaS may be regarded as knowledge within the meaning of the term as included in article 12 of the OECD Model (2017).

3.1.2.3. Classification of payments for IaaS: Storage capacity within the CCSP's IT infrastructure

As discussed in section 2.1., IaaS, as the main pillar of cloud computing, provides the user with storage capacity within the CCSP's IT infrastructure, consisting of virtual and physical servers. A virtual server (also called a virtual machine) is software or an operating system that simulates and behaves like an actual server. Multiple virtual machines can run simultaneously on the same physical computer, and the virtual hardware is mapped to the real hardware on the physical machine, which saves costs by reducing the need for physical hardware systems, associated maintenance costs and power, as well as cooling demand. Hence, the storage capacity has a virtual aspect, i.e. the software or operating system, as well as a physical aspect, i.e. the computer hardware, servers, etc.[102] However, as the storage capacity ultimately relies on the physical server, this is treated as the principal element for the purpose of classifying the corresponding payment.

Payment for the use of computer hardware and servers seems not to fall within the definition of royalties included in article 12 of the OECD Model (2017) as such physical assets cannot be regarded as know-how, industrial intellectual property or industrial secrets. In addition, transactions concerning server capacity as a service are not addressed further in the Commentaries on the OECD Model (2017). Consequently, any such payments should be classified as business income under article 7 of the OECD Model (2017), as long as the full rights and ownership of the servers are not transferred to the users, as this will generally imply classification as capital gains under article 13 of the OECD Model (2017).

However, the OECD Model, as it read on 11 April 1977, also included, in its definition of royalties, "payments […] for the use, or the right to use, industrial, commercial or scientific equipment" (ICS equipment), i.e. certain physical assets, and some bilateral tax treaties still include this older definition.[103] Neither the definition of royalties in the OECD Model (1977)

102. OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, at pp. 72-73.

103. A. Mehta, *International Taxation of Cross-Border Leasing Income* p. 149 (IBFD 2005), Books IBFD, found that 44 out of the 64 bilateral tax treaties analysed included industrial, commercial or scientific (ICS) equipment. Furthermore, as stated in the Reservations on art. 12 OECD Model (2017), (i) Greece reserves the right to include the payments referred to in paragraphs 9.1, 9.2 and 9.3 in the definition of royalties (para. 38); (ii) Canada, Chile, the Czech Republic, Latvia and the Slovak Republic reserve the right to add the words "for the use of, or the right to use, industrial, commercial or scientific equipment" to the definition of royalties (para. 40); (iii) Greece, Italy and Mexico reserve the right to continue to include income derived from the leasing of ICS equipment and of containers in the definition of royalties (para. 41); (iv) Poland reserves the right to include income derived from the use of or the right to use ICS equipment and containers in the definition of "royalties" (para. 41.1.); (v) New Zealand reserves the right to tax payments at source from the leasing of ICS equipment and containers (para. 42); and (vi) Turkey reserves the right to tax income from the leasing of ICS equipment at source (para. 46).

nor the Commentaries on the OECD Models (1977) and (2017) elaborate on what should be regarded as ICS equipment.

Nevertheless, before reference is made to national law, it seems to be in accordance with the general rule of interpretation in the Vienna Convention and in article 3(2) of the OECD Model (2017) to interpret "industrial, commercial or scientific" in the context of the overall definition of royalties; and, hence, to allow to be classified as royalties under article 12(2) of the OECD Model (2017) only those payments for the use of or the right to use physical assets applied in a "process" that has practical application in the operation of an enterprise and from which an economic benefit can be derived.[104] On this basis, it is argued in this article that servers may be regarded as ICS equipment.

The Commentaries on the OECD Model (2017) include some interpretative guidance on the distinction between payments for the use of ICS equipment and payments for the provision of services using ICS equipment.[105] The examples provided in the Commentaries are not related to servers, but rather, inter alia, to satellite operators' transponder leasings. These, despite their differences, are argued here to have essential similarities with servers, e.g. by providing capacity on ICS equipment-as-a-service. The similarities suggest that the principles for classifying payments for the use of such ICS equipment may be applicable to the classification of payments for the use of servers and hardware provided as IaaS.[106]

It is stated in the Commentaries that classification of the payment for the use of ICS equipment depends, to a large extent, on the relevant contractual arrangements. Furthermore, it is stated that such payments would normally be classified as business income under article 7 of the OECD Model (2017), as the user typically does not acquire physical possession of or have access to the transponder and because the satellite would typically be operated by the provider. If, on the other hand, the user may operate the satellite, payments to the satellite owner would likely be classified as royalties under article 12.[107]

The Technical Advisory Group has analysed whether transactions that involve computer equipment (hardware) should be treated as transactions involving the use of ICS equipment, – which, if so, would imply that the corresponding payments should be classified as royalty payments under tax treaties, including the right to use ICS equipment. The group found that the following factors indicate that the payment should be classified as a royalty payment:[108]

- the user is in physical possession of the hardware;
- the user controls the hardware;
- the user has a significant economic or possessive interest in the hardware;

104. *See* para. 11 *OECD Model: Commentary on Article 12* (2017), in which a similar requirement is specified in respect of payments received as consideration for information concerning *industrial, commercial or scientific experience*, i.e. know-how. *See* further Valta, *supra* n. 61, at 1020-1021; and Dourado et al., *supra* n. 97.
105. Paras. 9-9.3 *OECD Model: Commentary on Article 12* (2017).
106. *See* a similar application of the Commentaries regarding ICS equipment in, e.g. H.J. Kim & S. Yang, *Korea, Republic of*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 15 (IFA Cahiers vol. 103B, 2018), Books IBFD, where it is stated that, in the absence of clear guidelines or precedents addressing the particular issue of classifying income from cloud computing-as-a-service, academic discussions suggest that payments for Infrastructure-as-a-Service (IaaS), as opposed to SaaS or Platform-as-a-Service (PaaS), could reasonably be viewed as royalties inasmuch as they involve the use of or the right to use ICS equipment; Wagh, *supra* n. 27; Valta, *supra* n. 61, at pp. 999-1000; and Kjærsgaard & Jørnsgård, *supra* n. 27.
107. Para. 9.1. *OECD Model: Commentary on Article 12* (2017).
108. *Tax Treaty Characterisation Issues*, *supra* n. 48, at pp. 11-12.

- the provider does not bear any risk of substantially diminished income or substantially increased expenditure if there is non-performance under the contract;
- the provider does not use the hardware concurrently to provide significant services to entities unrelated to the user; and
- the total payment does not substantially exceed the rental value of the hardware for the contract period.

Although this is a non-exclusive list of factors and some of these factors may not be relevant in particular cases, the Technical Advisory Group concluded that they imply that payments for hardware should, in general, be classified as business income as opposed to royalties. Specifically, the group found that in the case of data warehousing, the provider typically (i) uses hardware to provide data warehousing services to users; (ii) owns and maintains the hardware on which the data is stored; (iii) provides many users with access to the same hardware; and (iv) has the right to remove and replace hardware at will. The users have no possession of or control over the hardware and will therefore utilize the hardware concurrently with other users.[109]

The report of the Technical Advisory Group is not in itself a valid legal source, and not all of the listed factors are to be found in the Commentaries on the OECD Model (2017). Nevertheless, it is worth noting that physical possession of the transponder and complete authority over the satellite are of importance for classifying the payment according to the Commentaries.[110] It is uncertain whether and to what extent, the remaining factors are of relevance for classification purposes: it could be argued that, as only some of the factors are included in examples, only these should be considered relevant; alternatively, it could be argued that the Commentaries do not set out to list all relevant factors, but only to provide examples of relevant factors in the context of transponders and satellites. The latter view seems to have been taken by, inter alia, the Supreme Court of the Republic of Korea, in a case focused on whether the use of a telecom satellite and an Internet network fell within the scope of the use of or the right to use ICS equipment. The Supreme Court classified the payments as business profit after analysing (i) the physical occupation and maintenance of the equipment; (ii) the control and operation of the equipment; (iii) the direct use of the equipment; (iv) whether users were allowed, under the relevant agreement, exclusive use of the equipment; and (v) whether there was effective lease of equipment.[111] On this basis, it is here argued that all the listed factors may be of some relevance when determining whether a payment is for *the right to use* ICS equipment.

When IaaS is provided, it is, in simplified terms, access to the server capacity of the physical servers that is provided. Users' purposes for purchasing IaaS may vary, but they are likely to include commercial purposes. Moreover, the capacity is likely to be applied to a process of an industrial or commercial character that has practical application in an operation and from which an economic benefit can be derived. Thus, the physical servers on which capacity is provided through IaaS appear to fulfil the conditions of being ICS equipment as envisaged in the Commentaries on the OECD Model (2017).[112] As for whether the user

109. Id., at p. 13.
110. Para. 9.1 *OECD Model: Commentary on Article 12* (2017).
111. *See* Kim & Yang, *supra* n. 106, at p. 15, summarizing KR: Supreme Court, 18 Jan. 2008, 2005Du16475.
112. T. Çakmak, *Turkey*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 29 (IFA Cahiers vol. 103B, 2018), Books IBFD: payments for continual use of computer software or digital content, such as cloud computing or the use of a foreign server, are treated by the Turkish authorities as payments

should be considered to be acquiring either a right to use the servers or a service supplied using the servers, it may be relevant to distinguish between IaaS deployed as private cloud computing and IaaS deployed as public cloud computing, as this determines who has access to the server capacity.

In cloud computing, as discussed in section 2.2. of this article, data and software are generally not stored on one specific server. Rather, for security and efficiency purposes, the system copies each individual user's data and software onto multiple servers and directs each user's requests for resources to the physical location that best satisfies a given demand.[113] It should also be recalled that public cloud computing gives multiple users ongoing access to the IT infrastructure, often on a pay-per-use basis.[114] Hence, payments for use of the servers are typically lower than the full rental value of the servers. Moreover, the user of IaaS deployed as public cloud computing is not in physical possession of the servers and does not have control or full authority over specific servers. Therefore, payments for IaaS deployed as public cloud computing should most likely be classified as business income under article 7 of the OECD Model (2017) – regardless of whether or not the definition of royalties in the applicable tax treaty includes payments for the right to use ICS equipment.

IaaS deployed as private cloud computing offers a cloud infrastructure operated solely for a specific user, either on or off-premises.[115] Hence, the user obtains sole access to the servers, typically with the purpose of making the storage of data more secure. The payment is thus remuneration for the full and exclusive right to use the servers, and, if on-premises, also for the physical possession of them, but not for full control over the servers, as they are generally administered and updated by the CCSP. Thus, the acquisition of full and exclusive use of the servers – especially if these are on-premises – offers a strong argument for classifying payments for IaaS deployed as private cloud computing as royalty payments under article 12 of the OECD Model (2017), if the applicable definition of royalties includes the right to use ICS equipment. If, however, the servers are off-premises, i.e. the user is not in physical possession of the servers, the classification is more uncertain.

As also noted in the OECD Commentaries, transactions involving digital technologies may occasionally impose challenges regarding the boundaries between article 13 of the OECD Model (2017), regarding capital gains, and article 12, regarding royalties, in situations in which an exclusive right is acquired.[116] Capital gains are not defined in detail in article 13 of the OECD Model (2017) or its Commentaries. However, it is stated in the Commentaries that the words "alienation of property" are "used to cover in particular capital gains resulting from the sale or exchange of property and also from a partial alienation, the expropriation, the transfer to a company in exchange for stock, the sale of a right, the gift and even

for the use of or the right to use ICS equipment, and hence as royalties. *See also* B. Miles & C. Plunket, *New Zealand*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 23 (IFA Cahiers vol. 103B, 2018), Books IBFD, in which the authors state that the Inland Revenue Department takes the view that, while software itself may not be "equipment", it can be part of equipment if it is an integral part of "industrial, commercial or scientific equipment", i.e. if the software is necessary for the use of the underlying equipment.

113. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 59.
114. *See* Jansen & Grance, *supra* n. 42, with the definition of public cloud computing quoted there.
115. Id., with the definition of private cloud computing quoted *supra* n. 44.
116. Para. 8.2. *OECD Model: Commentary on Article 12* (2017).

the passing of property on death".[117] Regarding ICS equipment, the Commentary on Article 12 of the OECD Model (1977) states that, when contracts combine the hiring element and the sale element, it may prove difficult to determine their true legal substance. However, it adds that payments under credit sale agreements should not be regarded as royalty payments, as the sale element is the paramount use, even though the transfer of ownership is dependent upon the payment of the last instalment. Conversely, the principal purpose of leasing contracts is normally that of hire, even if the user, during the term of a contract, has the right to opt to purchase the equipment in question outright; hence, such payments should be classified as royalty payments up to the date that any such right to purchase is exercised.[118] In addition, it is stated in the Commentaries on the OECD Model (2017) that the form of the consideration, e.g. instalments or payments related to a contingency, does not alter the essential character of the transaction.[119] These unspecific guidelines leave room for boundaries to be delimited in a variety of ways when "alienation" is, in accordance with the renvoi method, interpreted according to domestic tax law.[120] Therefore, it cannot be precluded that some payments for IaaS, deployed as private cloud computing on-premises, might be classified as capital gains under article 13 of the OECD Model (2017), on the basis that significant rights typically associated with the legal ownership of an asset have been granted to the user. However, as one of the benefits of cloud computing, as compared to traditional computing, is that the user does not have to invest in hardware (as it is instead

117. *OECD Model Tax Convention on Income and on Capital: Commentary on Article 13*, para. 5 (21 Nov. 2017), Treaties & Models IBFD.

118. *OECD Model Tax Convention on Income and on Capital: Commentary on Article 12*, para. 9 (19 Oct. 1977), Treaties & Models IBFD.

119. Para. 8.2. *OECD Model: Commentary on Article 12* (2017).

120. *See*, e.g. Valta, *supra* n. 61, at pp. 997-998, who observes that, in the United States, the indicators of a conditional sale are that "a) parts of the payment are attributed to an equity of the lessee; b) the lessee is contractually obliged to an amount of 'rental' payments that also lead to the acquisition of the title; c) the 'leasing rates' are so high at the beginning that they constitute an inordinately large proportion of the amount needed to secure the acquisition; d) 'rental' payments materially exceed the current fair rental value and thus compensate for more than just the use of the property; e) the price for a purchase is nominal in relation to the value of the property at the time when the option may be exercised, as determined at the time of the entering into the original agreement, or a relatively small amount in comparison to the total payments under the contract up to that point; and f) some portion of the periodic payments is specifically designated as interest or is otherwise readily recognizable as the equivalent of interest." In addition, according to D.P. Sengupta, *India*, in *Capital Gains Taxation: A Comparative Analysis of Key Issues* pp. 214-215 (M. Littlewood & C. Elliffe eds., Edward Elgar 2017), in India, the transfer of an asset includes, inter alia, the sale, exchange, relinquishment and extinguishment of any rights. In New Zealand, long-term lease agreements (e.g. of 12 years, as in NZ: Privy Council (PC), 29 Oct. 1998, *Commissioner of Inland Revenue v. Wattie*, [1999] 1 NZLR 529) were previously considered capital gains; however, this changed in 2012, and even long-term lease contracts are now considered income rather than capital gains: *see* S. Griffiths, *New Zealand*, in *Capital Gains Taxation: A Comparative Analysis of Key Issues* pp. 302-303 (M. Littlewood & C. Elliffe eds., Edward Elgar 2017). In South Africa, disposal of an asset is any event, act, forbearance or operation of law that results in the creation, variation, transfer or extinction of an asset: *see* J. Roeleveld, *South Africa*, in *Capital Gains Taxation: A Comparative Analysis of Key Issues* p. 319 (M. Littlewood & C. Elliffe eds., 2017). Within Danish law, "ownership" is characterized by a series of powers, in particular the rights to (i) possess and use an asset; (ii) have the asset at one's disposal in order to change or dispose of it; (iii) exclude others from using the asset; and (iv) request the return of the asset from others who do not have the right to temporarily possess it. These are all essential powers that are connected to property law; *see*, e.g. W.E. von Eyben, *Formuerettigheder: Indhold, Beskyttelse, Overdragelse* p. 24 (Jurist-Forbundets Forlag 1972). As an example of the contrary (in a case in which ownership was not transferred), *see* DK: HR, 8 Dec. 2003, SKM2003.586.HR, in which the Court stated that the right to use copyrighted films was granted only for a limited time and hence could not be classified as a transfer of ownership. For a commentary on the case, *see* P.K. Schmidt & J. Bundgaard, *Beskatning af immaterielle aktiver*, in *Immaterialretlig crossover* p. 91 (B. von Ryberg, C. Kragelund & M. Lavesen eds., Gjellerup/Gads Forlag 2015).

the CCSP's hardware that is being used), this is unlikely to be the case in the majority of cloud computing contracts.

3.1.2.4. Preliminary findings on the classification of payments for SaaS, PaaS and IaaS

In conclusion, most payments for cloud computing-as-a-service in the form of SaaS, PaaS and IaaS, deployed as either public or private cloud computing, should be classified as business income under article 7 of the OECD Model (2017), and therefore taxable only in the domicile state of the CCSP, unless the CCSP has a PE in the user jurisdiction.[121] This is based on the position that the Commentaries on the OECD Model are a valid source with legal interpretative value, as well as on the basis that, in the majority of transactions, payment is not consideration for the right to use commercial or industrial intellectual property rights or assets included in the definition of "royalties", but instead consideration for a service provided using such commercial or industrial intellectual property rights or assets. However, special attention should be paid to whether the applicable tax treaty includes technical services or technical assistance within its definition of royalties and whether the technical knowledge used by the CCSP may be considered know-how. Similarly, special attention should be paid to whether the applicable tax treaty includes ICS equipment and whether IaaS is deployed as private cloud computing, especially if IaaS is deployed on the premises of the user. Finally, it cannot be excluded that IaaS, deployed as private cloud computing, may be classified as capital gains under article 13 of the OECD Model (2017), although this, in practice, should be an exception to the general rule.

3.2. PEs of cloud computing service providers

3.2.1. Server farms as PEs

As demonstrated through the previous analysis, most payments for cloud computing-as-a-service will be classified as business income, and therefore taxed in the user jurisdiction only if the CCSP has a PE in the user jurisdiction, and the payment should be attributed to this PE. Hence, a user jurisdiction's right to tax payments for cloud computing-as-a-service largely depends on whether the activities in the user jurisdiction of the CCSP are sufficient to constitute a PE.

121. *See* L. Quaratino, *Italy*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* pp. 27-28 (IFA Cahiers vol. 103B, 2018), Books IBFD, in which the author argues that payments for the continual use of computer software via cloud computing should be treated as consideration for the right to view/display the content, i.e. as royalties. As there are no public rulings or tax court decisions available on the matter, the author refers to *Tax Treaty Characterisation Issues, supra* n. 48, at annex 2, category 21 (Access to an interactive web site). However, on the basis of the analysis in the present article, this finding cannot be supported. According to Z. Kukulski & A. Tim, *Poland*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* pp. 22-23 (IFA Cahiers vol. 103B, 2018), Books IBFD, citing PL: Director of the Tax Chamber in Warsaw, Tax Ruling IPPB5/423-1258/12-3/MW (1 Mar. 2013), the Polish tax authorities recognize that, from an international perspective, income from cloud computing services should typically be classified as business profit. However, the authors emphasize that the differences between the tax treatment of SaaS, IaaS and PaaS have not been analysed by the tax authorities, and they suggest in particular that the distinctive character of IaaS should be considered.

In article 5 of the OECD Model (2017), a PE is defined as "a fixed place of business through which the business of an enterprise is wholly or partly carried on".[122] This definition therefore contains the following three cumulative conditions:[123]

– the existence of a "place of business";
– this place of business is "fixed"; and
– the business of the enterprise is carried out through this fixed place of business.

The content of these conditions makes it clear that the various users of cloud computing in a jurisdiction will not constitute a PE of the CCSP – not only because there will be no fixed place of business at the disposal of the CCSP, but also because it is difficult to claim that the users are carrying on the business of the CCSP.

However, the physical servers used to provide cloud computing-as-a-service are equipment with physical locations, which may constitute a "fixed place of business" of the enterprise that operates the servers, assuming that the servers are not moved for a sufficient amount of time.[124] Furthermore, if the CCSP itself operates the servers, it will be carrying on business through this fixed place of business even if few or no personnel is present at the server farms.[125] Thus, server farms owned and operated by the CCSP may very well constitute fixed places of business through which the CCSP carries on its business.

Yet, even if the three cumulative conditions for creating a PE are met, activities considered preparatory or auxiliary will, according to article 5(4) of the OECD Model (2017), not constitute a PE of the CCSP. Some of the functions explicitly mentioned as being typically of a preparatory or auxiliary nature could – depending on the functionality of the cloud computing equipment – be relevant to server farms, e.g.[126] (i) the use of facilities solely for the purpose of the storage, display or delivery of goods belonging to the enterprise; and (ii) providing a communications link, relaying information through a mirror server for security and efficiency purposes.

However, the "economic substance test" included in article 5(4) of the OECD Model (2017) means that even these activities must be preparatory or auxiliary with respect to the business of the individual enterprise.[127] In general terms, auxiliary activities are of a supporting

122. Art. 5(1) *OECD Model* (2017).
123. *OECD Model Tax Convention on Income and on Capital: Commentary on Article 5* para. 6 (21 Nov. 2017), Treaties & Models IBFD [hereinafter *OECD Model: Commentary on Article 5* (2017)].
124. Id., at paras. 123 and 125.
125. Id., at para. 127. G. Abate, *France*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 27 (IFA Cahiers vol. 103B, 2018), Books IBFD, notes that even though the French tax authorities endorse the OECD principles, they have also issued a stricter interpretation of "server permanent establishments" (PEs), according to which the absence of operating staff on the site of a server implies that nothing more than preparatory or auxiliary activities are taking place, and hence that a PE is not created (FR: Ministerial Reply 56961 to M. de Chazeaux, Journal Officiel de l'Assemblée Nationale, 30 July 2001). The condition regarding the presence of operating staff is to be disregarded only in the specific exceptional circumstances in which the sale functions are run automatically by the server in the place where it is located. However, as this stricter interpretation was not included in the recast official doctrine of the French tax authorities issued in September 2012, Abate considers it doubtful whether this is still the prevailing interpretation.
126. Art. 5(4) *OECD Model* (2017); and para. 128 *OECD Model: Commentary on Article 5* (2017). *See also* J. Walker & T. Roth, *The Cloud, E-Commerce and Taxable Presence*, 21 Asia-Pac. Tax Bull. 2 (2015), Journal Articles & Papers IBFD.
127. The "economic substance test" may be illustrated by the example in para. 62 of *OECD Model: Commentary on Article 5* (2017), regarding a fixed place of business constituted by facilities used by an enterprise for storing, displaying or delivering its own goods or merchandise. If an enterprise maintains a very large

nature, typically without the need for significant assets or employees; whereas preparatory activities are those that are carried on in contemplation of the essential and significant part of the business, but only for a relatively short period of time.[128]

In the case of a CCSP owning and operating the servers used to provide cloud computing-as-a-service, it seems appropriate to conclude that even though servers as machines cannot make decisions or assume risks on their own, the servers are generally – independently of the type of cloud computing provided – an essential and significant part of the services provided to users, and thereby of the core business of the CCSP, i.e. not preparatory or auxiliary.[129]

Therefore, insofar as the CCSP owns and operates the servers through which cloud computing is provided as a service to the users (as illustrated in Figure 2 below), the CCSP will typically create a PE in the jurisdictions where the servers are located.[130]

Even though a thorough analysis of the attribution of profits is beyond the scope of the analysis in this article, it should briefly be noted that, if the CCSP carries on its business through a PE, the profits attributable to the PE are, according to article 7 of the OECD Model (2017) and the OECD *Report on the Attribution of Profits to Permanent Establishments* (OECD 2008), the profits that the PE would be expected to make if it were a separate and independent enterprise engaged in the same or similar activities under the same or similar conditions. This functional analysis should take into account the functions performed, assets used and risks assumed by the enterprise through the PE.[131] This therefore requires a detailed analysis

warehouse, in which a significant number of employees work, for the main purpose of storing and delivering goods owned by the enterprise that it sells online to customers in the local market, the storage and delivery activities represent an important asset, require a number of employees and constitute an essential part of the enterprise's sale and distribution business and would therefore not have a preparatory or auxiliary character. Before the implementation of OECD/G20, *Preventing the Artificial Avoidance of Permanent Establishment Status – Action 7: 2015 Final Report* (OECD 2015), Primary Sources IBFD [hereinafter *Action 7 Final Report*], it was debated whether the activities explicitly mentioned in art. 5(4) of the OECD Model were also subject to a "preparatory or auxiliary" requirement or whether they could not per se create a PE. However, the strict literal interpretation was often adopted in practice, i.e. the requirement of "preparatory or auxiliary" was specifically referred to only in the "catch-all" provisions stated in art. 5(4)(e) and (f) of the OECD Model; *see*, e.g. V. Dhuldhoya, *The Future of the Permanent Establishment Concept*, 72 Bull. Intl. Taxn. 4a (2018), Journal Articles & Papers IBFD; and R. Batheja, *Treaty Abuse and Permanent Establishments: Proposed Changes to Article 5(3) and (4) of the OECD MC*, in *Preventing Treaty Abuse* pp. 386-387 (D.W. Blum & M. Seiler eds., Linde 2016). Conversely, the OECD itself was of the opinion that all activities had to be of a preparatory or auxiliary nature: *see OECD Model Tax Convention on Income and on Capital: Commentary on Article 5* para. 21 (26 July 2014) [hereinafter *OECD Model: Commentary on Article 5* (2014)], Treaties & Models IBFD. Similar opinions may be found in the international tax literature; *see* the work of Batheja cited above.

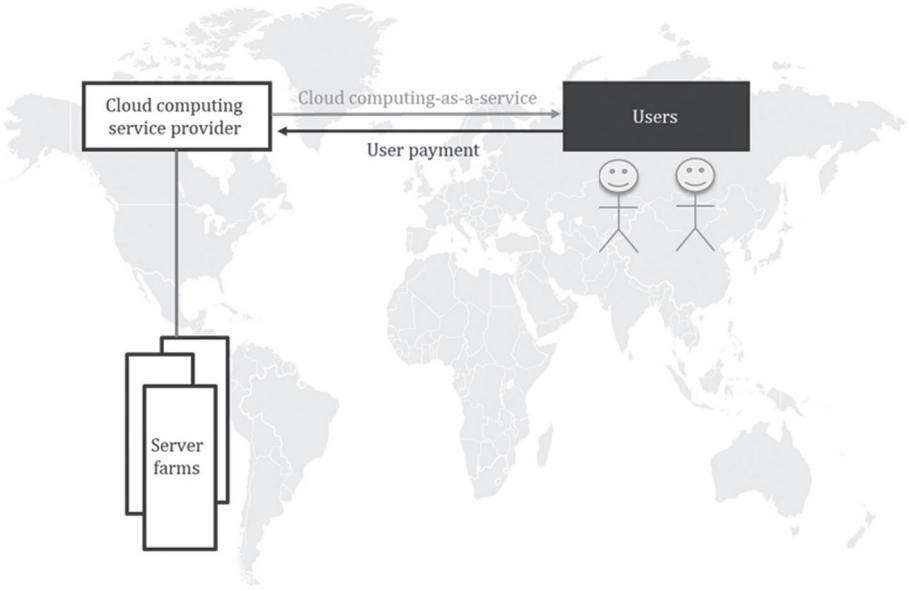
128. Para. 60 *OECD Model: Commentary on Article 5* (2017).

129. Para. 130 *OECD Model: Commentary on Article 5* (2017); and E. Reimer, *Permanent Establishment*, in *Klaus Vogel on Double Taxation Conventions* p. 312 (4th ed., E. Reimer & A. Rust eds., Wolters Kluwer Law and Business 2015). However, it should be noted that *OECD Model: Commentary on Article 5* (2017) includes official observations made by a number of countries on paras. 122- 131, i.e. the interpretation of "PE" in respect of e-commerce. Hence, (i) the United Kingdom takes the view that a server used by an e-tailer, either alone or together with websites, could not, as such, constitute a PE (para. 176); (ii) Chile and Greece do not adhere to all of the interpretations (para. 177); (iii) Mexico and Portugal wish to reserve their right not to follow the position expressed in the relevant paragraphs (para. 182); and (iv) Turkey reserves its position on whether and under which circumstances the activities referred to there constitute a PE (para. 183).

130. *See also* Bal (2014), *supra* n. 27, at p. 519.

131. *See* OECD, *Report on the Attribution of Profits to Permanent Establishments*, Preface, para. 10 (OECD 2010), Primary Sources IBFD, in which it is stated that the report was based upon the principle of applying, by analogy, the guidance found in the *OECD Transfer Pricing Guidelines for Multinational*

Figure 2 – Illustration of a simple (fictive) cloud computing business model in which the servers used to provide cloud computing-as-a-service to the users are owned and operated by the cloud computing service provider



of the facts and circumstances, but it has been argued to result in the attribution to the PE of only a modest profit.[132] The reason for this is that local PEs are commonly structured to have no ownership interest in intangible assets, to perform no (or limited) functions and to assume or control no (or limited) risks related to development, enhancement, maintenance, protection and exploitation (DEMPE) of intangibles.[133] Hence, in the case of a PE arising as a result of a server, it may be argued that attributing only the costs for the server to the PE or attributing to it the entire profit from the operations conducted via the server will typically not be in accordance with article 7 of the OECD Model (2017); instead, what is attributed to the PE should lie somewhere in between these extremes.[134]

Commonly – and perhaps with the aim of limiting the uncertainties related to attributing profits to a PE, as well as the pros and cons of global and territorial tax systems,[135] the full

Enterprises and Tax Administrations (OECD 2009), Primary Sources IBFD, for the purpose of determining the profits attributable to a PE.

132. *See* e.g. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 80; OECD/G20, *Public Consultation Document*, *supra* n. 3, at p. 8; and M. Olbert & C. Spengel, *International Taxation in the Digital Economy: Challenge Accepted?*, 9 World Tax J. 1, p. 8 (2017).

133. *See*, e.g. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 80; OECD/G20, *Public Consultation Document*, *supra* n. 3, at p. 8; and Olbert & Spengel, *supra* n. 132, at p. 8.

134. *See*, e.g. SE: Skatteverket [Swedish Tax Agency], Ställningstagande 202 493137-18/111 (23 Nov. 2018). The position of the Swedish Tax Agency regarding when servers located in Sweden create PEs is that an arm's length profit allocation to the PE is neither only the costs incurred by the PE for the server nor the entire profit of the business activity conducted through the server. Instead, the profit of the PE should reflect an arm's length compensation for the economic ownership of the servers.

135. *See* OECD/G20, *Addressing the Tax Challenges of the Digital Economy – Action 1: 2014 Deliverable*, sec. 2.3.1. (OECD 2014), Primary Sources IBFD, describing the characteristics of global and territorial tax systems.

or limited independence of PEs and certain market risks – the server farms within a cloud computing business model are typically owned and operated by local subsidiaries of the CCSP.[136] These subsidiaries are entitled to remuneration in accordance with the arm's length principle, resulting in a profit margin in the jurisdiction in which the server farm is located; this will typically be subject to tax, although this depends on the domestic tax law of the relevant jurisdiction. However, similar to the situation in which the servers are owned and operated by the CCSP itself, it has been argued that (too) little taxable profit is realized in the jurisdictions containing such subsidiaries.[137]

Moreoever, even in cloud computing business models in which server farms are owned and operated by local subsidiaries of the CCSP, the server farms could – depending on the specific facts and circumstances – constitute PEs of the CCSP pursuant to article 5(1) and (7) of the OECD Model (2017)[138] if the business of the CCSP may be said to be wholly or partly carried out at the server farms *and* the servers are "at the disposal" of the CCSP.[139]

3.2.1.1. A place of business "at the disposal of"

It should come as little surprise that uncertainties have been experienced regarding whether servers create PEs in various business models, including cloud computing business models, especially in respect of whether remote management of data and applications stored on the servers can cause a server to be "at the disposal of" the CCSP for the purposes of determining whether a PE has been created.

Whether a fixed place of business should be considered to be at an enterprise's disposal is further dealt with in the Commentary on Article 5 of the OECD Model (2017), in which it is stated that a place of business may be situated in the business facilities of another enterprise, e.g. where a foreign enterprise has certain premises or a part thereof owned by the other

136. *See* e.g. OECD/G20, *Public Consultation Document*, *supra* n. 3, at p. 4.

137. *See*, e.g. id., at para. 3; and Procter & Gamble, *Re: Comments on Public Consultation Document on Addressing the Tax Challenges of the Digitalisation of the Economy* p. 3 (6 Mar. 2019), in OECD/G20 Inclusive Framework on BEPS, *Addressing the Tax Challenges of the Digitalisation of the Economy*: *Comments Received on Public Consultation Document* (updated 11 Mar. 2019), available at https://www.oecd.org/tax/beps/public-comments-received-on-the-possible-solutions-to-the-tax-challenges-of-digitalisation.htm (accessed 31 July 2019). In addition, D Maduke & N. Miklaucic, *Canada*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 22 (IFA Cahiers vol. 103B, 2018), Books IBFD, argue that it may be possible for a US parent company to isolate its data centre in a Canadian subsidiary and thereby limit the exposure of the parent company's revenue to Canadian income tax. A thorough analysis of the remuneration of local subsidiaries is beyond the scope of this article.

138. This is referred to as the "separate entity" approach, which provides the possibility that a subsidiary may constitute a PE of its parent company in appropriate situations. Whether a subsidiary PE exists must be analysed under the general PE rules. Hence, a subsidiary PE may arise under both the main rule in art. 5(1) and the agency rule in art. 5(5) *OECD Model* (2017). *See also* J. Wittendorff, *Triangular Cases: The Interaction Between Transfer Pricing and PEs*, 66 Tax Notes Intl. 6, p. 545 et seq. (2012).

139. Para. 126 *OECD Model: Commentary on Article 5* (2017); *see also* para. 36 regarding ICS equipment such as satellites, in which the Commentary distinguishes between the situation in which equipment is let or leased by an enterprise through a fixed place of business maintained by it in another jurisdiction and the situation in which an enterprise lets or leases ICS equipment to an enterprise in another jurisdiction without maintaining a place of business in that jurisdiction. Only in the former situation does the enterprise create a PE in the second jurisdiction. This remains the case even if the lessor in the latter situation supplies personnel to operate the equipment after installation, provided that their responsibility is limited and the activities are performed under the direction, responsibility and control of the lessee. Conversely, if the supplied personnel have wider responsibilities, e.g. decision-making power, or if they operate, service, inspect and maintain the equipment under the responsibility and control of the lessor, the activity of the lessor may create a PE.

enterprise constantly at its disposal.[140] However, even the mere fact that an enterprise has a certain amount of space at its disposal that is used for business activities is sufficient to constitute a place of business. No formal legal right to use that place is required; instead, the determining factors are whether the enterprise has the effective power to use that location, the extent of the presence of the enterprise at the location and the activities that the enterprise performs there. Further, clarification of when a server is at the disposal of the CCSP can, to some extent, be found in national administrative practice and case law.

In Danish administrative practice, the Danish Tax Assessment Board[141] has analysed the concept of disposal in respect of server PEs, which, according to Danish domestic tax law, should be interpreted in line with the definition used in the OECD Model and its Commentaries.[142] The Danish Tax Assessment Board issued an advance binding ruling, in the beginning of 2016 stating that the activities performed by a foreign parent company with respect to a website hosted on a data centre owned by its subsidiary in Denmark would not constitute a PE of the foreign parent company, as the servers were not at the disposal of the parent company in the same manner *as if the parent company in fact owned or operated the servers*.[143] The activities performed by the foreign parent company included, inter alia, the ability of employees of the foreign parent company to remotely (i) monitor the performance of hardware and software; (ii) install and uninstall applications; (iii) carry out maintenance of the hosted applications; (iv) manage software and data; (v) close servers that did not work properly and redirect data traffic to other servers; and (vi) in an emergency situation, turn off specific servers or other specific equipment in the data centre. Furthermore, employees of the foreign parent company were granted limited physical access to the data centre and were to be accompanied by employees of the Danish subsidiary.[144] In its decision, the Danish Tax Assessment Board emphasized that the foreign parent company did not have any instructional power over the employees of the Danish subsidiary and would therefore not control their work, as well as the fact that the employees of the foreign parent company had no unaccompanied physical access to the servers. On this basis, the Danish Tax Assessment Board rightly concluded that the foreign parent company could not be regarded as having the servers owned and operated by its Danish subsidiary at its disposal and, for that reason, that the servers did not create a PE of the foreign parent company.[145]

140. Para. 10 *OECD Model: Commentary on Article 5* (2017).
141. The Danish Tax Assessment Board (*Skatterådet*) is the highest tax assessment body in Denmark. The body has 19 members: 6 are elected by the parliament and 13 are appointed by the Minister of Taxation. One of the Danish Tax Assessment Board's most important tasks is to issue advance binding rulings to taxpayers applying for them.
142. *See*, e.g. the preparatory remarks to DK: *Forslag til Lov om ændring af forskellige skattelove (fast driftssted og fiskale repræsentanter)* [Proposal for a law amending various tax laws (permanent establishment and fiscal representatives)], L no. 119 of 11 Dec. 1996. For a thorough analysis of PEs under Danish domestic tax law, *see* A.N. Laursen, *Fast driftessted* pp. 51-55 (Jurist- og Økonomforbundets Forlag 2011); and A.N. Laursen, *Ændringer af fast driftsstedsdefinitionen afledt af BEPS-projektet*, 2018 SR-Skat 2, pp. 111-123 (2018).
143. DK: Tax Assessment Board, Advance binding ruling SKM2016.188.SR (15 Mar. 2016).
144. *See* Bundgaard, *supra* n. 63, at 19, in which the author summarizes the decision of the Danish Tax Assessment Board.
145. A similar result was reached in the following decisions: DK: Tax Assessment Board, Ruling SKM2015.369.SR (3 June 2015); DK: Tax Assessment Board, Ruling SKM2014.268.SR (11 Apr. 2014); and DK: Tax Assessment Board, Ruling SKM2011.828.SR (19 Dec. 2011).

A somewhat similar result was reached by the Canada Revenue Agency in one case,[146] whereas the Spanish tax authorities and courts have applied a distinctive – and criticized – interpretation of "disposal" in *Dell Spain*.[147]

Although there seem to be divergent practices in domestic case law, the general understanding of a fixed (physical) place of business being at disposal implies that a cloud computing business model may be structured so as not to create PEs of the CCSP in the jurisdiction where the servers are located (if the servers are owned and operated by local subsidiaries).[148] Furthermore, the subsidiaries that own and operate the server farm should not constitute a deemed PE in the form of dependent agents of the CCSP according to article 5(5) of the OECD Model (2017). The argument is that the subsidiaries will neither interact with users of the CCSP nor actively participate in the contracting activities with users of the CCSP, not even if the negotiation and conclusion of contracts with the users is fully automated by the software being run and stored on the servers. This is, first and foremost, because neither the software nor the servers can be considered persons within the meaning of article 3 of the OECD Model (2017), and also because the mere storage of software cannot be regarded as playing a principal role in the conclusion of contracts.[149]

146. CA: Canada Revenue Agency (CRA), Server as a Permanent Establishment, Ruling 2012-0432141R3. The Canada Revenue Agency found that a data centre owned and operated by a Canadian affiliate of a US parent company did not constitute a PE of the parent company. The employees of the subsidiary would principally be responsible for the installation, operation, maintenance and repair of equipment located in the data centre. Conversely, the website activities could (and would) be managed remotely by employees of the US parent company, who would have the ability to monitor the performance of the hardware and software, install and uninstall applications, perform maintenance on the hosted applications and otherwise manage the software and data. However, employees of the US parent company would be escorted upon visiting the data centre for the purpose of, inter alia, inspection and maintenance. As a result, the Canada Revenue Agency concluded that the servers owned and operated by the Canadian subsidiary could not be considered to be at the disposal of the US parent company. *See also* Maduke & Miklaucic, *supra* n. 137, at p. 22, where the authors argue that the concept of a "server PE" is unlikely to have a meaningful impact on any Canadian tax revenue loss resulting from the digitization of traditional transactions. The primary reason is that the presence of many significant digital businesses in the United States reduces the need to have servers physically located in Canada. Secondly, even if, as in the case summarized here, it is desirable for a US company to set up a data centre in Canada, it may be possible to isolate the data centre in a Canadian subsidiary and thereby limit the exposure of the US parent company's revenue to Canadian income.

147. ES: *Tribunal Supremo* (TS) [Supreme Court], 20 June 2016, 2555/2015, *Dell Spain*, Case Law IBFD. This interpretation is also mentioned in J.L. Migoya Vargas, *Spain*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* p. 17 (IFA Cahiers vol. 103B, 2018), Books IBFD. The case is analysed, discussed and (correctly) criticized in A.J. Martín Jiménez, *The Spanish Position on the Concept of a Permanent Establishment: Anticipating BEPS, beyond BEPS or Simply a Wrong Interpretation of Article 5 of the OECD Model?*, 70 Bull. Intl. Taxn. 8, p. 458 et seq. (2016), Journal Articles & Papers IBFD.

148. The fact that an enterprise may carry out business in local markets without having servers located in those market jurisdictions or having servers located there but owned and operated by another entity has led the Israeli tax authorities to adopt an interpretation of a PE that includes "significant digital activity in Israel", even in cases in which the non-Israeli corporate tax resident does not have a server in Israel. *See*, e.g. E. Lempert & O. Levy, *Israel*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* pp. 20-22 (IFA Cahiers vol. 103B, 2018), Books IBFD, in which the authors discuss IL: Israel Tax Authorities (ITA) Circular, Transactions over the Internet of Non-Resident Corporations in Israel, 2016-4 (11 Apr. 2016). Although the debate among tax scholars and policymakers has, for quite some time, included the possibility of adding significant digital or economic presence to the definition of a PE, this interpretation is not in line with the current definition of PEs in international tax law and, therefore, cannot be supported.

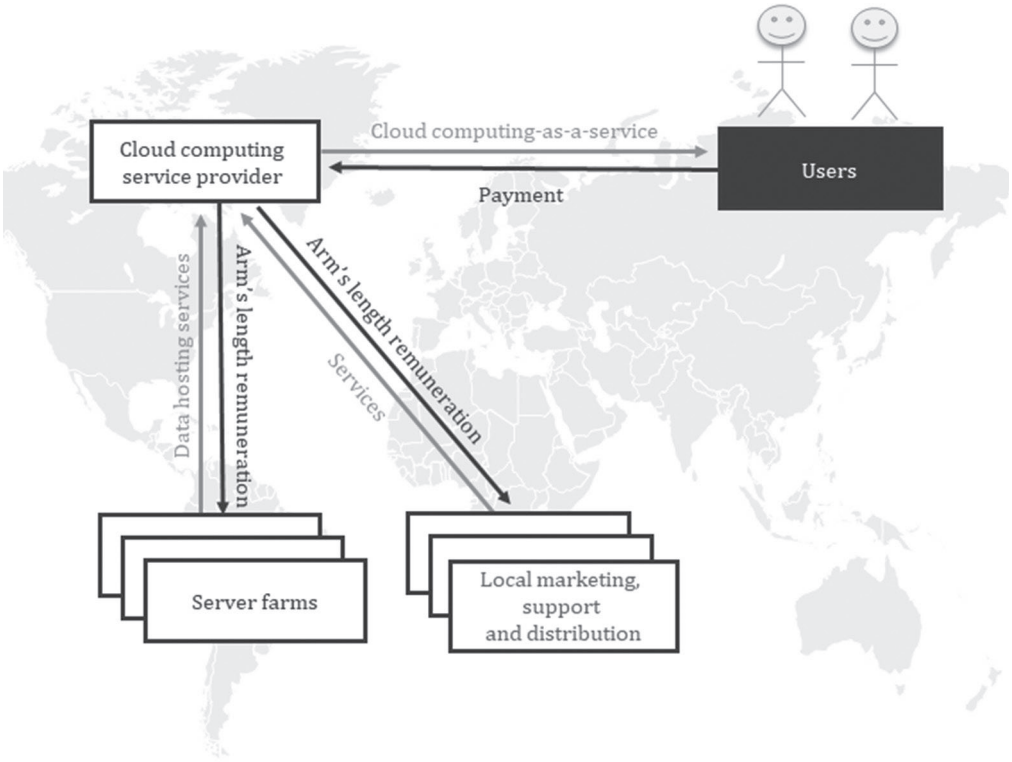
149. *See*, similarly, para. 131 *OECD Model: Commentary on Article 5* (2017) in respect of websites hosted on servers; and Reimer, *supra* n. 129, at p. 313.

In conclusion, a CCSP providing cloud computing-as-a-service may be structured so as to avoid the creation of PEs in the user jurisdiction if a subsidiary owns and operates the servers. Though such subsidiaries will be entitled to an arm's length remuneration for the services provided, it should be recognized that the number of user jurisdictions in which taxable revenue will be generated can be limited in comparison to the number of user jurisdictions in which the CCSP provides cloud computing-as-a-service.

3.2.2. Local representatives as PEs

A more realistic and common business setup, however, is for the CCSP to also have local representatives performing, for example, user support, sales and marketing activities on behalf of the CCSP. This is illustrated in Figure 3.

Figure 3 – Illustration of a (fictive) typical cloud computing business model, in which the servers used to provide cloud computing-as-a-service to the users are owned and operated by local subsidiaries of the CCSP and local sales, marketing and customer support are performed by local representatives of the CCSP



As regards whether activities such as user support, sales and marketing activities may be performed without creating a PE of the CCSP, it is argued here that the implementation of BEPS Action 7 has, in at least three ways, limited the options for a CCSP to structure its business in a way that avoids a taxable presence in user jurisdictions.

First, the anti-fragmentation rule implemented in article 5(4) of the OECD Model (2017), states that preparatory or auxiliary activities cannot be separated from core activities to avoid creating a PE in the user jurisdiction, provided that the functions are performed by related parties, as defined in article 5(8) of the OECD Model (2017), and that the functions are complementary and part of a cohesive business operation.[150] Hence, even though, for example, support services or marketing activities of a general nature may be considered auxiliary[151] (i.e. *not* specially developed for the purposes of the individual user and based on strategies developed, instructed and controlled by the CCSP),[152] these will still create a PE if the sales-related activities are not considered auxiliary, e.g. if employees of the CCSP take active part in the negotiation of important parts of cloud computing contracts by participating in decisions related to the type, quality or quantity of the cloud services provided.[153] The criticism has – correctly – been raised in the international tax literature that the Commentaries lack guidance on what should be considered "complementary functions" and what should be considered "a cohesive business operation".[154] However, it could be argued that all three types of activities should be considered complementary functions, as they are natural elements in the value chain of the provision of cloud computing-as-a-service to users, which should be considered the cohesive business operation of a CCSP.[155]

Second, local representatives with limited authority, i.e. lacking the authority to conclude contracts in the name of the enterprise, may constitute deemed agency PEs if they play the principal role leading to the conclusion of contracts for the provision of services by the enterprise. Even though the subjective nature of whether or not an agent has played the "principal role" has been said to increase legal uncertainty,[156] representatives will most likely be regarded as playing such a role if they send emails, make telephone calls or visit potential customers and discuss the cloud services provided under online (standard) contracts and are remunerated for doing so based (partly) on the number of cloud contracts concluded in this jurisdiction.[157] This also seems to be in line with the object and purpose of deeming an agency PE to exist based on agents, which covers cases in which the activi-

150. Art. 5(4) and (8) *OECD Model* (2017).
151. *See* paras. 71 and 128 *OECD Model: Commentary on Article 5* (2017), explicitly mentioning that the advertising of goods or services may be of a preparatory or auxiliary character.
152. This description is in line with the generic description of cloud computing business models in OECD/G20, *Action 1 Final Report*, *supra* n. 1, at pp. 175-176, sec. B.3.; OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, at pp. 73-79; and P. Pistone, J.F. Pinto Nogueira and B. Andrade Rodríguez, *The 2019 OECD Proposals for Addressing the Tax Challenges of the Digitalization of the Economy: An Assessment*, 2 Intl. Tax Stud. 2, p. 11 (2019), Journal Articles & Papers IBFD.
153. Para. 72 *OECD Model: Commentary on Article 5* (2017).
154. *See* S. Watson, N. Palazzo-Corner & S. Haemmerle, *UK View on Revised PE Standards in the Multilateral Instrument*, 24 Intl. Transfer Pricing J. 3, sec. 2.4. (2017), Journal Articles & Papers IBFD. The authors state that the lack of clarity in the definition of "complementary functions" and what should be considered "a cohesive business operation" has caused concern among businesses, and the authors expect that this will inevitably lead to disputes between taxpayers and national tax authorities.
155. Two examples are included in the Commentaries: *see* paras. 81-82 *OECD Model: Commentary on Article 5* (2017). From these it can be said that (i) in a bank, the verification of information provided by clients is a complementary function to a decision regarding a loan application, and part of a cohesive business operation of providing loans to clients; and (ii) a store selling appliances provides a complementary function to a small warehouse in which identical items are stored, and is part of a cohesive business operation of storing goods in one place for the purpose of delivering these goods in accordance with the obligations incurred by their sale.
156. Dhuldhoya, *supra* n. 127; M.C. Villareal Regalado, *Treaty Abuse and Permanent Establishments: Proposed Changes to Articles 5(5) and 5(6) of the OECD MC*, in *Preventing Treaty Abuse* (D.W. Blum & M. Seiler eds., Linde 2016).
157. Para. 90 *OECD Model: Commentary on Article 5* (2017).

ties that a person exercises in the market jurisdiction are intended to result in the regular conclusion of contracts to be performed by a foreign enterprise – in other words, where the local representatives act as the sales force of the CCSP.[158]

Third, commissionaire arrangements, i.e. agents concluding contracts with customers in their own name, constitute deemed agency PEs, provided that the agent is "dependent".[159] If, however, the economic risk profile of the local representatives corresponds to that of resellers, i.e. if cloud computing-as-a-service is resold in the name of and at the risk of the local representatives, they should not be deemed agency PEs of the CCSP.[160] It has been argued that, as a consequence of the implementation of the BEPS recommendations targeting dependent commissionaires, such commissionaires are currently being converted into resellers, which should result in more functions being performed, more risks assumed and more assets used by the resellers in the user markets and, hence, more income being allocated to the user jurisdictions.[161]

Consequently, it is here argued that the above-mentioned amendments to the PE concept have increased the number of user jurisdictions in which taxable revenue may be generated from a business model based on the provision of cloud computing-as-a-service. However, even though the full effect of the changes happening in response to the implementation of BEPS Action 7 and BEPS Actions 8-10 is yet to be seen, concerns have been raised that (too) little taxable profit continues to be realized in the market jurisdictions. The argument is that it is still possible to conduct remote selling and that, in the event that a taxable presence is created, the main profit will remain with the CCSP, assuming that the CCSP is the developer and owner of the intellectual property, including user data and algorithms, and performs the functions that control risks and functions relating to the DEMPE functions of intangibles.[162]

158. Id., at para. 88.

159. Prior to the implementation of the recommendations in the OECD/G20, *Action 7 Final Report*, *supra* n. 127, only a dependent agent who habitually exercised the authority to conclude contracts in the name of the cloud computing service provider (CCSP) or binding on the CCSP was deemed to constitute a PE of the CCSP: *see OECD Model Tax Convention on Income and on Capital* art. 5(5) (26 July 2014), Treaties & Models IBFD. Furthermore, paras. 21, 32.1 and 33 *OECD Model: Commentary on Article 5* (2014) clarified that such "authority to conclude" should be viewed in the context of contracts that constituted the proper business of the enterprise and that only persons who, in exercise of this authority – or by the nature of their activity – involved the enterprise in business activities in the market jurisdiction to a particular extent would be deemed to constitute a PE. *See* Dhuldhoya, *supra* n. 127; and P. Baker, *Dependent Agent Permanent Establishments: Recent OECD Trends*, in *Dependent Agents as Permanent Establishments* pp. 24-28 (M. Lang et al. eds., Linde 2014), who argue that the controversy surrounding the interpretation of "the authority to conclude contracts in the name of" originates in the differences of interpretation between civil law and common law countries. *See also* D. Feuerstein, *The Agency Permanent Establishment,* in *Permanent Establishments in International and EU Tax Law* p. 107 (F. Brugger & P. Plansky eds., Linde 2011).

160. Para. 96 *OECD Model: Commentary on Article 5* (2017).

161. *See*, e.g. *Inclusive Framework Interim Report*, para. 273, where it is stated that some digitalized multinational enterprises "have already started restructuring their trade structures based on remote sales in some countries (e.g., Amazon, eBay, Facebook, Google), although not all market jurisdictions have experienced and benefited from such restructuring to the same extent". *See also*, B. Larking, *A Review of Comments on the Tax Challenges of the Digital Economy*, 72 Bull. Intl. Taxn. 4a (Special Issue) (2018), Journal Articles & Papers IBFD.

162. *See*, e.g. OECD/G20, *Public Consultation Document*, *supra* n. 3, at para. 3; and Procter & Gamble, *supra* n. 137. *See also* Maduke & Miklaucic, *supra* n. 137, at p. 22.

3.2.3. Preliminary findings on the creation of a PE

Based on this analysis, server farms will create PEs of a CCSP in accordance with article 5 of the OECD Model (2017) only in situations in which the CCSP owns and operates the server farms. In such a case, the profit attributed to such a server PE, pursuant to article 7 of the OECD Model (2017), will typically be limited. In practice, however, server farms are typically owned and operated by local subsidiaries of the CCSP, remunerated for their services in accordance with the arm's length principle under article 9 of the OECD Model (2017). Such server farms will generally not be at the disposal of the CCSP and, as a consequence, will not constitute a PE of the CCSP.

In addition, following the implementation of BEPS Action 7 in article 5 of the OECD Model (2017), local representatives performing user support, sales and marketing activities on behalf of the CCSP will typically constitute a PE or other taxable presence of the CCSP, generating taxable revenue in the market jurisdictions.

Consequently, only in the case of remote selling of cloud computing-as-a-service – i.e. cases in which the users are resident in a jurisdiction not containing any server farms, local representatives or the CCSP itself – will the allocation of taxing rights to the user jurisdictions depend on the payments being classified as royalties.

4. Policy Challenges and Options: Aligning Taxation with Value Creation

Today's international tax regime, bolstered by the practical significance of the OECD Model and its method of classification and assignment of source, allocates cross-border income based on classification and on the principle of "economic allegiance" introduced by the League of Nations in the 1920s.[163] It was this concept that led to the PE threshold, much later updated by the implementation of BEPS Action 7, as a sufficient nexus to justify the allocation of taxing rights to source states. Even in situations in which the value chain is split between members of a single group, article 7 of the OECD Model, the authorized OECD approach and the arm's length principle set out in article 9 of the OECD Model should ensure that profit is allocated and taxed in accordance with value creation in various jurisdictions. However, it has been argued that the digitalization of the economy has challenged these traditional proxies for taxing business profits at the "source" by decoupling market presence and physical presence.[164]

It seems to be the general perception among policymakers that the tax revenues of user jurisdictions are indeed challenged by the digitalization of the economy based on this decoupling of market presence and physical presence. One of the contributing factors to

163. *See*, e.g. S. Jogarajan, *Double Taxation and the League of Nations* p. 20 (Cambridge University Press 2018); and, regarding the academic origins of this school of thought, K. Vogel, *Worldwide vs Source Taxation of Income: A Review and Re-Evaluation of Arguments (Part I)*, 16 Intertax 8/9, p. 219 (1988).

164. OECD/G20, *Public Consultation Document*, *supra* n. 3, at para. 12. *See*, however, OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, in which it is stated that different countries had different views on the scale and nature of these challenges, including whether and to what extent these challenges should result in changes to the international tax rules; these ranged from the view that there was a need to change existing profit allocation and nexus rules to the view that no action was needed beyond addressing BEPS issues. The appropriateness of traditional proxies is discussed by, among others, Olbert & Spengel, *supra* n. 132; P. Hongler & P. Pistone, *Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy* (2015), Journal Articles & Papers IBFD; and G. Kofler, G. Mayr & C. Schlager, *Taxation of the Digital Economy: A Pragmatic Approach to Short-Term Measures*, 58 Eur. Taxn. 4 (2018), Journal Articles & Papers IBFD.

this development is cloud computing, as it enables so-called "scale without mass", and it has been argued to be fundamental in accelerating the digitalization of other businesses and, therefore, of the entire economy.[165] The importance of cloud computing is also illustrated by the fact that Amazon is now the world's most valuable public company, with Amazon Web Services controlling 40% of the world's public cloud market and having an annual revenue from providing cloud computing-as-a-service exceeding USD 23 billion.[166] Hence, it is obvious that cloud computing business models create value, but discussions are ongoing with regard to *how* and, even more so, *where* such business models are creating value.

As advocated by the OECD/G20 BEPS Project, the international allocation of taxing rights over business profits should be based on the principle of taxing profits where value is created.[167] Although value across organizations has long been viewed as a foundational concept, sitting at the core of multiple disciplines, the creation of value is constantly topical in academia, as value is continually reshaped by technology, with new technological advances allowing for new forms of organization.[168] This also seems to apply to cloud computing business models, which, as recognized by the OECD, are truly new and hardly comparable to any traditional counterpart.[169] In contrast, other highly digitalized business models may, to some extent, be compared to more traditional business models: e.g. Uber may be compared to traditional taxi services, and a social network supported by revenue from advertisements may be compared to a traditional television company. The lack of any comparable traditional business model for cloud computing affects the question of neutrality, which forms part of the Ottawa Taxation Framework Conditions as adopted by the OECD. According to this principle, taxation should seek to be neutral and equitable between different forms of digitalized business models, as well as between traditional and digitalized business models. The intention is that business decisions should be motivated by economic rather than tax considerations. Consequently, taxpayers in similar situations carrying out similar transactions should be subject to similar levels of taxation.[170] However, if cloud computing business models are not comparable to traditional business models, it seems questionable to argue on this basis that extended user jurisdiction taxation is urgently needed in order to ensure neutrality and a level playing field.

Another aspect that distinguishes value creation in cloud computing business models from value creation in other so-called highly digitalized business models is the extent to which cloud computing business models make use of data. Apart from the storage of users' data on servers, a cloud computing company makes limited use of data compared to other highly digitalized, multi-sided business models that primarily profit from advertising targeted at their users, based on algorithms developed from collected user data.[171] With that said, CCSPs – similar to more traditional enterprises – also collect data on their users, e.g. for the purposes of predicting the demand for storage capacity or evaluating the performance

165. OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, at p. 72, para. 221.
166. Synergy Research Group, *No Change at the Top as AWS Remains the Leading Public Cloud Provider in all Regions* (19 Nov. 2018), available at https://www.srgresearch.com/articles/no-change-top-aws-remains-leading-public-cloud-provider-all-regions (accessed 29 July 2019).
167. *See*, e.g. OECD/G20, *Action Plan on Base Erosion and Profit Shifting* (OECD 2013), Primary Sources IBFD.
168. M. de Reuver, C. Sørensen & R.C. Basole, *The Digital Platform: a Research Agenda*, 33 J. of Info. Tech. 2, pp. 1-12 (2017).
169. OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, paras. 234-235.
170. OECD, *Ottawa Taxation Framework*, *supra* n. 28, at p. 12.
171. OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, at p. 76, para. 233.

of their servers. However, instead of relying (primarily) on targeted advertising, cloud computing business models generate revenue through sales of cloud computing-as-a-service, typically with a high-volume, low-margin strategy.[172] Perhaps recognizing this, the European Commission did not include pure cloud computing-as-a-service in their now-abandoned proposal for a directive implementing a digital services tax as an interim measure for taxing businesses that are heavily reliant on user data.[173]

The market for cloud computing-as-a-service is characterized by relatively few large market players, which may be explained by CCSPs realizing economy of scale;[174] this suggestion is further supported by the recognition that creating high-quality computer hardware, network infrastructure, software and algorithms requires substantial investment in order to ensure sufficient capacity.[175] Hence, even though it may appear that cloud computing business models realize revenue exceeding what would be expected of traditional businesses, it should be recalled that CCSPs typically operate with a low margin even though they are required to bear heavy investment costs. These economic features of cloud computing business models should preferably be considered in relation to the principle of the ability to pay. Even though there seems to be no generally accepted definition of the principle and being mindful of the fact that its status as well as its relevance have been debated in the international tax literature,[176] it has been argued that the principle of the ability to pay should be understood as requiring the tax burden to be proportional to the taxpayer's capacity to pay it.[177] With this interpretation, the ability to pay is expressed objectively in currency units rather than, for example, subjective utility, and it is also assumed to include allowances and deductions for costs incurred in the course of carrying out business. In other words, the capacity – and hence, the obligation – to make contributions should ideally be measured only by the income exceeding the expenses related to the essential needs or the business of the taxpayer.[178] On this basis, it is argued that it would be in violation of the principle of the ability to pay to, for instance, impose a turnover tax or withholding tax on gross revenues on which tax relief is typically granted only on a net basis. Should cloud computing-as-a-service be subjected to such a tax, it could jeopardize the profitability of the current business models, as it is to be expected that a higher tax burden on low-margin businesses

172. Id., at para. 231.
173. 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) 148 final (2018), Primary Sources IBFD.
174. The three biggest CCSPs (Amazon, Microsoft and Google) account jointly for approximately 65% of the public cloud computing market: *see* Synergy Research Group, *supra* n. 166; and OECD/G20, *Action 1 Final Report*, *supra* n. 1, at para. 142.
175. OECD/G20, *Inclusive Framework Interim Report*, *supra* n. 7, at para. 246.
176. For a thorough analysis of the history and development of the principle of ability to pay, *see* Englisch, *supra* n. 29. In brief, Englisch argues that previously, the principle of ability to pay was closely associated with the benefit principle. As stated in A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* bk. V, ch. 2, pt. II (Strahan and Cadell 1776), everyone should contribute "as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state", or, as argued by T. Hobbes, *Leviathan or The Matter, Forme and Power of a Common-Wealth Ecclesiasticall and Civil* (Andrew Crooke 1651), in proportion to their consumption. An alternative interpretation of the principle of ability to pay is to associate it with the so-called "theory of equal sacrifice", supported by, among others, J.S. Mill, *Principles of Political Economy with Some of Their Applications to Social Philosophy* (John W. Parker 1848).
177. Englisch, id., at sec. 19.1.1.
178. Id., at secs. 19.1.1. and 19.1.2.

will, to some extent, result in a decrease in supply and an increase in prices.[179] Given the significance of cloud computing, this would likely affect the economy at large.

To summarize the above, it is recommended that policymakers await the full effects of the changes made in the OECD Model (2017), as part of the implementation of the BEPS package, before adopting measures that jeopardize the potential of the digitalization of the economy. The combination of low operating margins, a somewhat limited use of data and the probable conversion of remote selling into local reselling as a response to the lower threshold for the creation of a PE and the updated transfer pricing guidelines may mean that further measures in respect of cloud computing business models become unnecessary. This is also recognized in the OECD/G20 BEPS Action 1 Final Report, in which it is argued that, despite the increased flexibility available to businesses in choosing where their activities take place, many large multinational enterprises will continue to have a taxable presence in the user jurisdiction, and it is therefore important not to overstate the issue of nexus.[180]

However, clarification of the legal uncertainty surrounding mixed contracts would be welcomed. The principle of legal certainty requires the law to be clear, easily accessible and comprehensible, as well as to create a balance between stability and flexibility.[181] It is not possible to eliminate all uncertainties in law; however, it has been argued that policymakers should persistently strive to minimize legal uncertainty, as the alternative risks distorting the functioning of the market.[182] Currently, it is uncertain when to apply unified taxation and when to break down a contract and apply the appropriate taxation to the separate parts. Hence, as the Commentaries on the OECD Model are accepted as a valid legal source, a section with examples should be included in the Commentaries, as is often seen in challenging areas such as the definition of royalties – despite the inherent shortcomings of examples. The examples and further guidelines should explain when the provision of services is a principal part of a contract and when it is ancillary and largely unimportant. Furthermore, these examples and guidelines should also explain whether this distinction should be made from a technical, practical and commercial perspective and/or from the perspective of the typical user of the provided services. The regime governing mixed contracts – and thereby most cloud computing contracts – is a source of legal uncertainty for taxpayers, and failure to provide clarification may have a negative impact on the promotion and development of new business models fostered by the digitalization of the economy, including the cost minimization and operational excellence of cloud computing-as-a-service, which has been said to benefit society as a whole (*see* section 2.). Finally, it is explicitly stated in the preamble of the OECD Model (2017) that among the factors to be taken into account when considering entering into a tax treaty are the various features that encourage and foster economic ties between countries, such as the greater certainty of tax treatment for taxpayers.[183]

179. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at Annex E: here, it is recognized that taxpayers bearing the legal responsibility for paying the tax may alter their behaviour and shift the burden of the tax to other parties through changes in supply or in prices. However, the extent of the shifting is likely to depend on market conditions, e.g. competition and elasticity, as well as the specific type of tax imposed.
180. OECD/G20, *Action 1 Final Report*, *supra* n. 1, at p. 100.
181. *See* Weber & Sirithaporn, *supra* n. 31, and the other works and authors cited in the same footnote.
182. *See* Weber & Sirithaporn, *supra* n. 31, and the other works and authors cited in the same footnote.
183. *OECD Model* (2017), Introduction, para. 15.5.

5. Conclusion

Even though the allocation of taxing rights between contracting states is nothing new, the digitalization of the economy raises challenges in respect of the classification of payments and in delimiting the PE threshold. Cloud computing-as-a-service, which is considered to be fundamental in accelerating the digitalization of other businesses, is one of the new business models creating challenges for taxpayers and tax authorities in the allocation of the right to tax payments. Cloud computing contracts are typically complex, as they include various services, and it is therefore necessary first to analyse whether the consideration paid under such contracts should be subject to unified taxation, or whether it should be broken down and its elements provided with separate classifications before taxation is applied. The question of how to distinguish the principal service from ancillary and largely unimportant services under such mixed contracts has already been debated in the international tax literature, without reaching a final conclusion. In order to adhere to the principle of legal certainty, it is argued in this article that the Commentaries on the OECD Model should be updated to reduce this uncertainty and to provide direction on whether the distinction should be conducted from a technical, practical or commercial perspective and/or from the perspective of the typical user.

Furthermore, it is argued in this article that payments for cloud computing-as-a-service in the form of SaaS, PaaS and IaaS, deployed as either public or private cloud computing in accordance with their principal purpose, should, in the vast majority of transactions, be classified as business income under article 7 of the OECD Model (2017) and, hence, be taxable only in the domicile state of the CCSP unless the CCSP has a PE in the user jurisdiction. The reason is that, in the majority of transactions, the payment does not constitute consideration for the right to use an asset included in the definition of "royalties" in article 12(2) of the OECD Model (2017), but instead consideration for the provision of services using intellectual property rights included in that definition. However, special attention should be paid to whether the applicable tax treaty includes technical services or technical assistance within its definition of royalties and whether the technical knowledge used by the CCSP may be considered know-how. Similarly, special attention should be paid if the applicable tax treaty includes ICS equipment and IaaS is deployed as private cloud computing. In such cases, the consideration for the services provided is more likely to be treated as a payment for the right to use the ICS equipment, i.e. a right to use the physical servers, especially if IaaS is deployed on the premises of the user. As a result, such payments may be classified as royalties. Moreover, it cannot be precluded that IaaS deployed as private cloud computing should be classified as capital gains under article 13 of the OECD Model (2017) if significant rights associated with the ownership of an asset are transferred to the user. However, this should rarely be the case, because, inter alia, one of the benefits of cloud computing is that the users do not have to invest in computer equipment.

Finally, assuming that the server farms are owned and operated by local subsidiaries and that local representatives conclude contracts with users in their own name and on their own account, it seems unlikely that PEs will be created within cloud computing business models. However, the implementation of BEPS Action 7 is likely to increase the number of user jurisdictions in which taxable revenue is generated as part of a business model based on the provision of cloud computing-as-a-service. Assuming that local subsidiaries and representatives are remunerated in accordance with the arm's length principle, these jurisdictions should be allocated taxable revenue in accordance with the value created in these jurisdic-

tions. However, in the case of remote selling, income from cloud computing-as-a-service will be taxable in the user jurisdiction only if the payment is classified as royalties, which typically will apply only if the payment is regarded as consideration for the use of or the right to use ICS equipment, which is the case with private cloud computing.

In sum, it is recommended that policymakers await the full effects of the implementation of the BEPS package before adopting measures that might jeopardize the potential of the digitalization of the economy. The combination of low operating margins, a somewhat limited use of data and the probable conversion of remote selling into local reselling may mean that further measures in respect of cloud computing business models become unnecessary.

ARTICLE

Blockchain Technology and the Allocation of Taxing Rights to Payments Related to Initial Coin Offerings

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The author explores one of the most debated technologies of recent times – blockchain technology – from an international tax perspective. The focus is on its main principles in its current stage and how the technology may create value in certain use cases. Being one of the most common use cases benefitting from the main principles of blockchain technology, it is analysed how capital raised through initial coin offerings and the investors' return on their invested capital should be classified according to the OECD Model Tax Convention 2017. More specifically, emphasis is placed on classification of capital raised through the issuing of utility tokens, debt tokens, and equity tokens as well as the classification of return on investments in such tokens. Among other things, it is concluded: 1) that capital raised through the issuing of utility tokens in some initial coin offerings may be subject to a shared taxing right; 2) and that Article 21 of the OECD Model Tax Convention 2017 may, to a greater extent, be applicable with regards to the classification of the investors' return on investment in tokens compared to return on more 'traditional' hybrid financial instruments. Against this background, the fundamental principles of legal certainty and neutrality are discussed. It is also recommended that policymakers provide guidance on the classification of capital raised through initial coin offerings and the investors' return on their invested capital.

Keywords: OECD Model Tax Convention, tax treaty classification, international tax law, tax policy, blockchain technology, initial coin offering, hybrid financial instrument, financial innovation.

1 Introduction

The digitalization of the economy has enabled the development of new products and services and has changed the ways in which such products and services are produced and delivered.[1] However, these changes also raise challenges when the current tax rules should be applied. In recent years, these challenges have been high on the political agenda at both national and supranational levels. From an international tax perspective, the work conducted by the OECD as part of its Base Erosion and Profit Shifing Project has been considered by many stakeholders as the most appropriate forum for establishing an understanding of the challenges and, on this basis, developing long-term solutions and obtaining international consensus. As part of this work, it was stated already in the Final Report Action 1 *Addressing the Tax Challenges of the Digital Economy* that was published in 2015 that, while the digitalization of the economy could exacerbate the risk of base erosion and profit shifting,[2] it also raised broader challenges in respect of, inter alia, the heavy reliance on user data, nexus, and classification of income for digital products and services for tax treaty purposes.[3] In this respect, the primary focus in the OECD's later publications has been on user data and nexus for (large) centralized business models with the intention of aligning taxation with the perceived value creation in market states and on the prevention of tax avoidance.[4]

While acknowledging that this is of significant importance, the identified challenges regarding classification of income for tax treaty purposes remain a challenge and a

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1 See OECD, *Addressing the Tax Challenges of the Digital Economy, Action 1–2015: Final Report* 52 (OECD Publishing 2015).

2 See OECD, *supra* n. 1, Ch. 6.

3 See OECD, *supra* n. 1, Ch. 7.

4 See e.g. OECD, *Tax Challenges Arising from Digitalisation – Inclusive Framework on BEPS: 2018 Interim Report*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing 2018); OECD, *BEPS Project Public Consultation Document – Addressing the Tax Challenges of the Digitalisation of the Economy, 13 February–6 March 2019* (OECD Publishing 2019); OECD, OECD, *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy*, OECD/G20 Inclusive Framework on BEPS (OECD Publishing 2019); OECD, *Public Consultation Document – Secretariat Proposal for a 'Unified Approach' Under Pillar One, 9 October 2019–12 November 2019* (OECD 2019), and OECD, *Public Consultation Document – Global Anti-Base Erosion Proposal ('GloBE') – Pillar Two, 8 November 2019–2 December 2019* (OECD Publishing 2019).

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source of legal uncertainty for taxpayers. The issues typically relate to identifying the relevant transaction and providing a sufficient understanding of the technology as well as the rights and obligations provided in the transaction that is relevant for tax treaty purposes.

An example of payments that appear to be challenging to classify for tax treaty purposes are those for products and services based on blockchain technology. It was initially employed as the technological framework for bitcoins[5] and, although blockchain technology has been overshadowed by bitcoins and other cryptocurrencies in many ways, it has been argued that its true potential goes beyond cryptocurrencies – although the technology is still in its infancy. Hence, blockchain enthusiasts have argued that blockchain technology may have the potential to change the nature of companies with regards to how they are managed and funded, how they create value, and how they perform basic functions such as marketing and accounting.[6] Other commentators are more moderate in their view on blockchain technology and point out the many technological, governance, organizational, and societal barriers which will have to be overcome for a true blockchain revolution to be successful.[7]

However, despite the substantial publicity and the ensuing commotion that has surrounded blockchain technology and cryptocurrencies, the OECD has been almost silent on the potential challenges that the technology may impose when the current international tax regime is to be applied to products and services that are provided by the use of such decentralized technology or even entire business models based on it. More specifically, the Final BEPS Report on Action 1 from 2015 states that bitcoins and other virtual currencies raise substantial policy issues[8] and, in the Interim Report from 2018, it is recognized that the use of blockchain technology is an area in which further research is warranted, however, the report does not indicate whether this research will, in fact, be conducted.[9] In the two Public Consultation Documents[10] and the Programme of Work[11] from 2019, blockchain technology and its potential applications and challenges were not mentioned at all.

In the international tax literature related to blockchain technology, focus has primarily been on the classification and taxation of capital gains and losses from the sale of cryptocurrencies according to domestic tax regulation[12] and, further, how blockchain may be deployed in, e.g. a value chain analysis, VAT within the EU, and other matters of tax compliance.[13] While recognizing the existing literature and taking into account the inherent international nature of blockchain technology, the aim with this article is to contribute to the existing tax literature analysing the technology by answering the following overall research question:

> *How are the taxing rights to payments related to initial coin offerings allocated according to the OECD Model Tax Convention on Income and on Capital from 2017?*

In order to answer the overall research question, firstly, a general understanding of blockchain technology should be established. However, as the technological aspects of the technology imply a highly technical frame of reference that is unnecessary for the purpose of this article, the analysis will be focused on how different forms of the underlying governance structure influence the significance of the distinctive characteristics of blockchain technology, which may create economic value if applied in appropriate use cases. On this basis, it will be analysed when to apply the technology to create economic value (*see* section 2).

Notes

5 S. Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (2008), https://Bitcoin.org/Bitcoin.pdf (accessed 21 Jan. 2020).

6 *See* e.g. D. Tapscott & A. Tapscott, *How Blockchain Will Change Organizations*, 58 MIT Sloan Mgmt Rev. 2 (2017), P. Boucher, *How Blockchain Technology Could Change Our Lives*, European Parliamentary Research Service, PE 581.948 (2017), J. Parra-Moyano & O. Ross, *KYC Optimization Using Distributed Ledger Technology*, 59 Bus. & Info. Systems Eng'g 6 (2017), D. Tapiscott & A. Tapscott, *Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies Is Changing the World* (Portfolio/Penguin 2017) and D. E. O'Leary, *Configuring Blockchain Architectures for Transaction Information in Blockchain Consortiums: The Case of Accounting and Supply Chain Systems*, 24(4) Intelligent Systems Acc. Fin. Mgmt138–147 (2017).

7 M. Iansiti & K. R. Lakhani *The Truth About Blockchain*, 95(1) Harv. Bus. Rev. 118–127 (2017); S. Banker, *Blockchain In The Supply Chain: Too Much Hype* (1 Sept. 2017), https://www.forbes.com/sites/stevebanker/2017/09/01/blockchain-in-the-supply-chain-too-much-hype/#4f508fb7198c (accessed 21 Jan. 2020) and C. Horlacher *BankThink 'Centralized' Blockchain Projects Are Doomed to Failure* (31 Jan. 2017), https://www.americanbanker.com/opinion/centralized-blockchain-projects-are-doomed-to-failure (accessed 21 Jan. 2020).

8 See OECD, *supra* n. 1, at 43 & 44.

9 See OECD, *Tax Challenges Arising from Digitalisation – Inclusive Framework on BEPS: 2018 Interim Report, supra* n. 4, at 206.

10 See e.g. OECD, *BEPS Project Public Consultation Document – Addressing the Tax Challenges of the Digitalisation of the Economy, supra* n. 4; OECD, *Public Consultation Document – Secretariat Proposal for a 'Unified Approach' under Pillar One, supra* n. 4, and OECD, *Public Consultation Document – Global Anti-Base Erosion Proposal ('GloBE') – Pillar Two, supra* n. 4.

11 See OECD, *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy, supra* n. 4.

12 *See* e.g. A. Bal, *Taxation, Virtual Currency and Blockchain*, 68 Series Int'l Tax'n (Wolters Kluwer 2019), Ch. 5 in respect of the US, the UK, Germany and the Netherlands, L. F. Kjærsgaard & A. Arfwidsson, *Taxation of Cryptocurrencies from the Danish and Swedish Perspectives*, 47(6/7) Intertax 620 et seq. (2019); A. J. Maples, *A Bit of Tax for the Revenue Authority: The Taxation of Cryptocurrency in New Zealand – Some Initial Thoughts*, 25 N. Z. J. Tax'n L. & Pol'y 181 (2019); F. Rubinstein & G. G. Vettori, *Taxation of Investments in Bitcoins and Other Virtual Currencies: International Trends and the Brazilian Approach*, 20(3) Derivatives & Fin. Instruments (2018); S. Bilaney, *India: Taxing Time for Cryptocurrencies*, 20(4) Derivatives & Fin. Instruments (2018) and J. Brockdorff, J. Bielik & K. Bronzewska, *How Small Islands Are Setting the Tone for Crypto Regulation: Malta and Jersey's Approaches*, 21(1) Derivatives & Fin. Instruments (2019).

13 *See* e.g. C. A. Herbain, *Fighting VAT Fraud and Enhancing VAT Collection in a Digitalized Environment*, 46(6/7) Intertax (2018); S. K. Bilaney, *From Value Chain to Blockchain – Transfer Pricing 2.0,* 25(4) Int'l Transfer Pricing J. 294 et seq. (2018); A. Majdanska & K. Dziwinski, *The Potential of a Standard Audit File – Tax in the European Union: A Chance for Coordinated VAT Administration?* 72(10) Bull. Int'l Tax'n 582 et seq. (2018) and C. Dimitropoulou, S. Govind & L. Turcan, *Applying Modern, Disruptive Technologies to Improve the Effectiveness of Tax Treaty Dispute Resolution: Part 1,* 46(11) Intertax 868–870 (2018) and Bal, *supra* n. 12, at 19–27.

In accordance with the findings in section 2, the remainder of the article will be devoted to one of the most common and debated use cases that creates economic value through the characteristics of blockchain technology, specifically, initial coin offerings (hereinafter: ICOs). More specifically, the subsequent analysis includes a legal dogmatic analysis of how capital raised through ICOs and the ICO investors' return on invested capital in ICOs are classified for tax treaty purposes (*see* section 3).[14] The primary aim with section 3 is to deduce the applicable law as it stands *de lege lata* by gathering, systematizing, and analysing relevant legal sources.[15] In the context of ICOs, the focus is on analysing characteristics of the most popular types of tokens and their similarities as well as differences to more 'traditional' hybrid financial instruments and how these affect the classification according to the OECD Model and its commentaries. Hence, although the OECD Model is not, in itself, a ratified and binding treaty, the OECD Model and its commentaries have often been of great importance for the interpretation and application of bilateral tax treaty provisions[16] that typically rely on the definitions of income categories included in the OECD Model.[17] Section 4 of the article outlines the main conclusions to answer the overall research question.

Finally, in order to offer some wider, new academic perspectives, considerations *de lege ferenda* will be provided. They will focus on the principles of neutrality between traditional and highly digitalized business models,[18] and recommendations are subsequently made for improving legal certainty which requires the law to be clear, easily accessible, and comprehensible.[19] Otherwise stated, it is contended *de lege ferenda* that the findings presented in this article should have tax policy impact as a lack of action will prevent achieving the value creating potential of blockchain technology as regulatory ambiguity is known to delay the adoption rate of new technologies such as this (*see* section 5).

2 Economic value through blockchain technology

The technical aspects of blockchain technology are very complex and not easy to understand without a technical background, and a comprehensive explanation of the technical mechanisms falls outside the scope of this article.[20] However, as it requires a basic understanding of blockchain technology to know when it may be beneficial and how it may impact various use cases, an explanation of the technology is provided along with its most significant features and their value-adding potential.

2.1 *Types of Blockchains*

Blockchain technology was born in the post-Internet era as the underlying technology of bitcoin; a purely peer-to-peer version of electronic cash that allows online payments to be sent directly from one party to another without going through a financial institution.[21] However, the underlying technology has been argued to potentially having an impact extending well beyond the payment sector.[22]

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[14] The legal dogmatic method is often used in studies of international tax law; *see* e.g. J. Wittendorff, *Transfer Pricing and the Arm's Length Principle in International Tax Law*, 35 Series Int'l Tax'n 13 et. seq. (Kluwer International Law 2010) and J. Bundgaard, *Hybrid Financial Instruments in International Tax Law* (Wolter Kluwer 2017).

[15] *See* e.g. E.-M. Svensson, *Boundary-Work in Legal Scholarship*, in *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism* 17–50 (Å. Gunnarsson, E.-M. Svensson & M. Davies eds, Routledge 2007).

[16] *See* e.g. US: Tax Court (USTC), *Taisei Fire and Marine Insurance Co. v. Commissioner*, 104 TC 535, 548 (2 May 1995). Similarly, the Danish Supreme Court has, in a number of cases, referred to the OECD Model and Commentaries: *see* e.g. DK: (HR) [Supreme Court], 18 Dec. 1992, I 323/1991, in which the court referred to the OECD, *Model Tax Convention on Income and on Capital: Condensed Version September 1992* (OECD Publishing 1992), as the reason for its decision in assessing the taxable income of a Danish branch of a US company. *See also* AU: High Court of Australia (HCA), *Thiel v. Federal Commissioner of Taxation* (22 Aug. 1990) in which the HCA dealt with the tax treatment of profits resulting from the sale of shares under the bilateral tax treaty concluded between Australia and Switzerland in 1980. To clarify the meaning of 'enterprise' within the tax treaty, the judges in this case turned to the OECD, *Model Tax Convention on Income and on Capital (1977): Commentary on Article 3* and *Article 7*. The importance of the OECD Model is further discussed in R. Avi-Yonah, *International Tax as International Law*, 57(4) Tax L. Rev. 483–501 (2004); and C. Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary* 3 (Edward Elgar 2016) Garbarino argues that OECD interpretative solutions or principles may circulate through either effective or hybrid juridical transplants activated by domestic courts.

[17] See OECD, *Model Tax Convention on Income and on Capital: Condensed Version September 2017* (OECD Publishing 2017), Arts 5 and 12. *See* C. H. Lee & J.-H. Yoon, *General Report*, in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy* vol. 103B, 24 (IFA Cahiers 2018), where it is stated that many countries adhere to the OECD Model to a certain extent, although the allocation of taxing rights over royalties typically differs. *See also* J. Sasseville & A. Skaar, *General Report*, in *Is There a Permanent Establishment?*, vol. 94a, 23 et seq. (IFA Cahiers 2009); and P. Baker, *Double Taxation Agreements and International Tax Law: A Manual on the OECD Model Double Taxation Convention (1977)* 2 (Sweet and Maxwell 1991).

[18] See OECD, *Implementation of the Ottawa Taxation Framework Conditions* 12 (OECD Publishing 2003).

[19] D. Weber & T. Sirithaporn, Legal Certainty, Legitimate Expectations, Legislative Drafting, Harmonization and Legal Enforcement in EU Tax Law, in Principles of Law: Function, Status and Impact in EU Tax Law (C. Brokelind ed., IBFD 2014); and G. T. Pagone, *Tax Uncertainty*, 33(3) Melb. U. L. Rev. 887 (2009), citing S. Joseph & M. Castan, *Federal Constitutional Law: A Contemporary View* 6 (Law Book Co. 2006) and J. Raz, *The Rule of Law and Its Virtue*, 93(2) L. Q. Rev. 198–202 (1977). The principles of neutrality and legal certainty have been chosen because they are generally considered fundamental for evaluating tax systems, including with respect to digitalized business models. *See* e.g. OECD, *supra* n. 1, at 20.

[20] For a more technical perspective, *see* e.g. S. Abiteboul et al., *Web Data Management – Introduction to Distributed Systems* (Cambridge University Press 2011).

[21] Nakamoto, *supra* n. 5. However, despite that blockchain technology itself is considered a technology in its very early stages, the technology is based on the well-known technologies, peer-to-peer network, cryptographic algorithm, distributed ledger, and decentralized consensus mechanism.

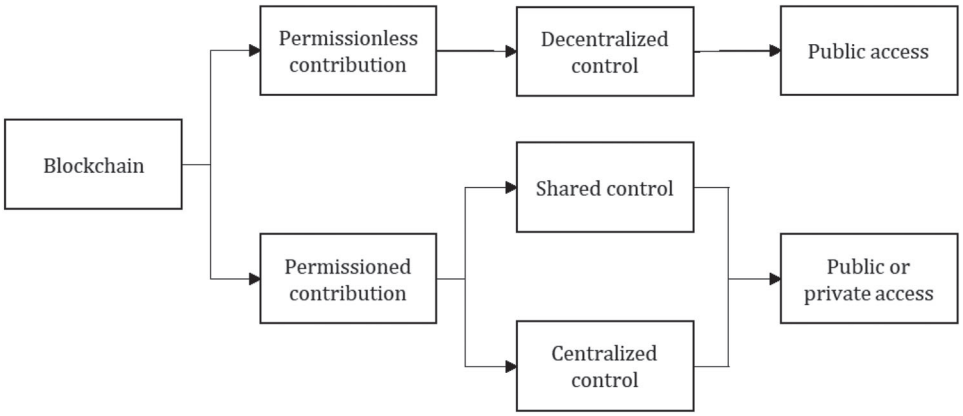
[22] *See* e.g. Tapscott & Tapscott, *How Blockchain Will Change Organizations supra* n. 6; Boucher, *supra* n. 6, Parra-Moyano & Ross, *supra* n. 6; Tapiscott & Tapscott, *Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies Is Changing the World, supra* n. 6.

In simple terms, a blockchain can be described as an open distributed ledger that records and links transactions between parties chronologically in a verifiable and permanent manner. New transactions may be valuated through different consensus mechanisms, inter alia depending on the degree of trust and decentralization of the network as well as the required speed and scalability. As in the case of bitcoins (fully decentralized), the consensus mechanism is proof-of-work (PoW) for which participants of the network, referred to as miners, compete to solve cryptographic problems using computing power, resulting in massive energy consumption as the number of transaction increases.[23] The miners are rewarded with new cryptocurrencies if they succeed in solving the cryptographic problem. Another and more energy-efficient consensus mechanism is proof-of-stake (PoS) for which the chance of solving the cryptographic problem depends on the participant's stake in the network, i.e. the number of cryptocurrencies rather than the amount of computing power. The validators of a PoS consensus mechanism are rewarded with transaction fees if they succeed in solving the cryptographic problem. In environments with partial trust, as known from businesses using legal agreements and frameworks, other consensus mechanisms may be applied to obtain a more rapid finality of a transaction such as lottery-based or voting-based consensus mechanisms, as applied in inter alia Hyperledger.[24] In the end, the choice of consensus mechanism generally depends on the desired trade-off between security, speed, scalability, and finality.

Besides differences in consensus mechanisms, the governance structure of a blockchain may vary according to its accessibility, and it can be divided into two main categories: permissionless and permissioned blockchains.[25] In permissionless blockchains, anyone can *contribute* data for it, and *control* – as well as validation – is fully decentralized among participants while the rules for achieving consensus are predefined. The applications supported by permissionless blockchains will have public *access.* An example is the bitcoin blockchain. In permissioned blockchains, only pre-selected participants can *contribute* data to it. *Control* can be shared, e.g. across a consortium of companies or different departments within the same company, or *control* can be centralized with one authorized participant who coordinates and validates the data to be added to the blockchain, e.g. a governmental authority. In the case of permissioned blockchains, *access* to the application supported by the technology can be either public or private. An overview of the various governance structures is provided in Figure 1:

Choosing which blockchain to apply significantly depends on the specific use case, though it will generally be a trade-off between security in terms of risk of individual errors and manipulation, scalability, transparency, need for privacy, flexibility, as well as efficiency in terms of transaction costs and time.

Figure 1 Illustration of the Various Governance Structures of Blockchains According to Contribution, Control, and Accessibility to the Data Stored on the Blockchain.[26]



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[23] K. J. O'Dwyer & D. Malone, *Bitcoin Mining and Its Energy Footprint*, 25th IET Irish Signals & Systems Conference 2014 and China-Ireland International Conference on Information and Communications Technologies 2014, 280–285 (2014) and A. de Vries, *Bitcoin's Growing Energy Problem*, 2(5) Joule 801–805 (2018).

[24] Hyperledger, *Hyperledger Architecture Volume 1 – Introduction to Hyperledger Business Blockchain Design Philosophy and Consensus* 4, https://www.hyperledger.org/wp-content/uploads/2017/08/Hyperledger_Arch_WG_Paper_1_Consensus.pdf (accessed 13 Mar. 2020). Underlying assumption that business networks have partial trust.

[25] P. Tasca, & C. J. Tessone, *Based on A Taxonomy of Blockchain Technologies: Principles of Identification and Classification*, 4 Ledger J. 10–11 (2019).

[26] Based on J. Camilo Giraldo Mora, *X-Border Platforms: The Implications of Distributed Ledger Technology*, Conference Paper June 2018 Conference: European Conference on Information Systems, https://www.researchgate.net/publication/326683507_X-Border_Platforms_The_Implications_of_Distributed_Ledger_Technology (accessed 7 Apr. 2020).

2.2 Main Principles of Blockchain Technology

While the consensus mechanism and governing structure of blockchain technology varies, its fundamental architecture has been argued to have certain main principles.[27] Although, to some extent, dependent on the choice of consensus mechanism and governance structure of the specific blockchain, the below-listed five principles have been argued to create value from an economic perspective by increasing efficiency of transacting[28] if they are applied in appropriate use cases:

- *Constant distribution of data* across the network of participants provide either public or private access to the entire history of the database.
- *Peer-to-peer transmission* implying a disintermediation of intermediaries in traditional transaction flows.
- *Transparency with pseudo-anonymity* implies that historic records of data transactions are fully disclosed while the party who initiated each transaction is anonymized with a cryptographic key.[29]
- *Irreversibility* of records enabled by decentralized control or shared control means that once a transaction has been added to the blockchain, it requires consensus among the network to change that data thereby making it very difficult to change data records already added to the blockchain.
- *Computational logic* behind each of the transactions taking place facilitates the creation of certain rules at the transaction level, resulting in the possibility of creating so-called 'smart contracts'[30] that allow for automatic coordination in the validation of predefined processes and transactions between two or more parties.

As already indicated, the significance of each feature is dependent on the underlying governance structure of the blockchain, and it is the specific use case that determines whether a feature is beneficial or problematic. Hence, if data protection and confidentiality concerns are important, the features of constant data distribution and transparency may imply that a private permissioned blockchain is preferred over a public permissionless blockchain. Conversely, transparency and constant distribution of data to all of the participants of the network may be desired in networks in which creation of trust is of substantial importance, implying that permissionless public blockchain may be more beneficial than a private permissioned blockchain.

The lower transaction costs due to the disintermediate consequence of peer-to-peer transactions also imply that multiple participants perform the same functions independently of each other – especially in permissionless public blockchains with decentralized control. Hence, blockchain technology should be applied only when no trusted or cost-competitive intermediary can be identified. Alternatively, if there is partial trust within the network, the number of replicated functions may be limited by deploying a private permissioned blockchain not reaching consensus through PoW.

Finally, the features of irreversibility and computational logic both ensure that data cannot be changed or deleted once it is stored on the blockchain and strengthens contractual performance by use of smart contracts, i.e. the two features provide certainty for the participants. However, in practice, some degree of flexibility may be preferred in terms of making corrections with a retroactive effect or adapting to changing circumstances. Moreover, with regards to the coding of a smart contract, challenges are likely to arise when specialized programmers should translate abstract legal terms into codes as well as anticipate all potential events which may subsequently significantly increase the costs of coding.[31] Hence, it is argued that smart contracts may be most suitable for contractual relationships characterized by simplicity and a substantial number of similar transactions in order to decrease costs of coding per contract, to transfer standardized products to minimize the risk of challenges of assessing whether contractual obligations are fulfilled, and for one-off relationships or contracts for which events affecting the contract are limited and easily

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[27] Similarly, M. Iansiti & K. R. Lakhani, *The Truth About Blockchain*, Harv. Bus. Rev. 9 (Jan.-Feb. 2017). However, depending on a specific use case, other features may be more relevant, *see* e.g. H. F. Atlam et al., *Blockchain with Internet of Things: Benefits, Challenges, and Future Directions*, 10(6) MECS Int'l J. Intelligent Systems & Applications 40–48 (2018). The author emphasizes that immutability, decentralization, anonymity, better security, and increased capacity are the features that are most beneficial in respect of blockchain applied in the context of the internet of things or IoT.

[28] It should be noted that 'value' and 'value creation' are concepts of constant topicality within academia as the concepts are continually shaped with the use of technology. One way to think of value and value creation is from an economic perspective where value is attributed to a monetary measure. This perspective has traditionally been applied for tax purposes and implies an emphasis on the profits made by a taxpayer as well as the mechanisms that enable the creation of these profits. Accordingly, a business creates value if the revenues exceed the corresponding costs – also known as the 'net principle'. In respect of value and value creation within the field of tax law, *see* e.g. OECD, *supra* n. 1; OECD, *Tax Challenges Arising from Digitalisation – Inclusive Framework on BEPS: 2018 Interim Report, supra* n. 4, Ch. 2, primarily focusing on Porter's value chain in M. Porter *Competitive Advantage Creating and Sustaining Superior Performance* (The Free Press 1985), and Stabell and Fjeldstad's value shop and value in C. Stabell & Ø. Fjeldstad, *Configuring Value for Competitive Advantage: On Chains, Shops, and Networks*, 19(5) Strategic Mgmt J. 413–437 (1998); M. Olbert & C. Spengel, *Taxation in the Digital Economy – Recent Policy Developments and the Question of Value Creation*, 2(3) Int'l Tax Stud. (2019).

[29] Importantly though, this anonymity is limited as cryptographic keys' history may be used to de-anonymize users; *see* e.g. M. A. Harlev et al., *Breaking Bad: De-Anonymising Entity Types on the Bitcoin Blockchain Using Supervised Machine Learning*, Proc. 51st Hawaii Int'l Conf. System Sci. 3794 (2018), https://research-api.cbs.dk/ws/portalfiles/portal/57467494/hoahua_sun_yin_et_al_breaking_bad_publishersversion.pdf (accessed 13 Mar. 2020).

[30] M. Iansiti & K. R. Lakhani, *The Truth About Blockchain*, 95(1) Harv. Bus. Rev. (2017); Bal, *supra* n. 12, at 12–19. Chaincode is used as a synonym for a smart contract in the Hyperledger network.

[31] Bal, *supra* n. 12, at 11–19. The author discusses the legal enforceability as well as the pros and cons of smart contracts.

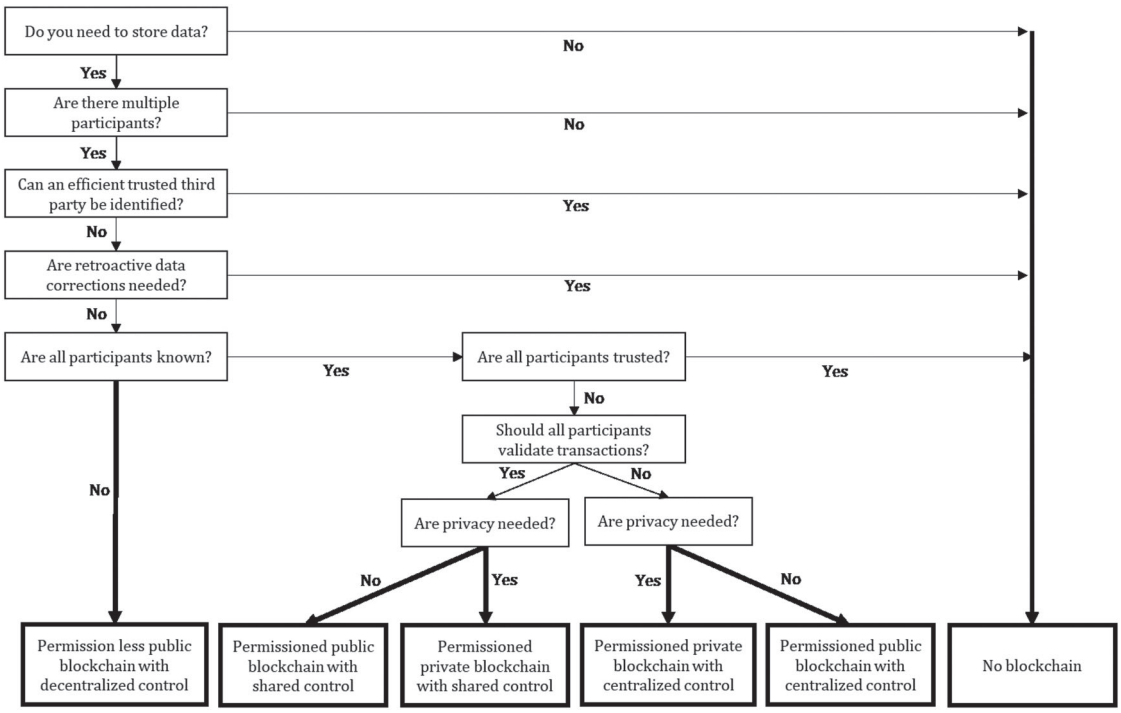
predicted, with the aim of limiting the desire or need for adapting terms and conditions to changing circumstances. In a network where the permanent nature of blockchain technology is problematic and greater flexibility is desired, a permissioned blockchain with a more centralized control governance structure may be preferred – although this could also imply that blockchain technology is not the most suitable solution at all.

In summary, the decision on whether to apply blockchain technology and, if so, which type of governance structure to apply may – in simplified terms – be based on answering the questions as illustrated in Figure 2:

In conclusion blockchain enthusiasts may claim that the technology is going to change the world and transform the internet from the 'the internet of information' to 'the internet of value'. However, it is more moderately argued in this article that while blockchain technology offers the ability to store verified data permanently from multiple sources and present a shared ledger, the potential use cases where the technology – at the current stage – creates economic value may primarily be networks where disintermediation and transparency are more important than performance and confidentiality.[32] Further, the main principles of blockchain technology – and economic value creation from these principles – are only guaranteed in permissionless public blockchains with fully decentralized control such as those used for bitcoin and ethereum. Nonetheless, in practice, concerns related to data protection and confidentiality tend to imply a preference for permissioned private blockchains that allow for greater control and privacy[33] yet – in reality – this type of blockchain is more comparable to a traditionally shared database.

However, a common use case that benefits significantly from the main principles of permissionless public blockchains is fundraising through the issuance of cryptocurrencies, i.e. ICOs. Although there is no widely

Figure 2 Illustration of How to Decide Whether to Go for a Blockchain Solution and, if so, Which Governance Structure to Deploy (the Author's Creation).



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[32] *See also* Bal, *supra* n. 12, at 32.

[33] Examples of such permissioned private blockchain-based initiatives currently taking place are (1) various forms of recordkeeping including publicly traded companies applying blockchain to maintain a record of stock ownership to ensure accurate ownership, voting, and dividend payments. The Delaware General Corporation Law was amended 1 Aug. 2017 to allow corporations to maintain shareholder lists and other corporate records using blockchain technology, Senate Bill 69 – An Act to Amend Title 8 of the Delaware Code Relating to the General Corporation Law. (2) Dubai's payment reconciliation and settlement developed under The Dubai Blockchain Strategy. Smart Dubai, *Blockchain*, https://www.smartdubai.ae/initiatives/blockchain (accessed 13 Mar. 2020). Further, established MNEs have included blockchain-based products in their portfolio in the form of a platform through which customers can develop a customized blockchain solution for their business and industry, e.g. IBM Blockchain Platform, or finalized use-case-specific applications, e.g. TradeLens created by a joint venture between the world's largest shipping company, Maersk, and IBM for the purpose of supply chain management within the shipping industry.

accepted definition of an ICO, the phenomenon may be described as a new method for raising capital for financing projects – typically before a final product or platform has been commercialized or even developed – by issuing cryptocurrencies in exchange for official currencies or other cryptocurrencies.[34] Hence, an ICO is somewhat similar to crowdfunding and initial public offerings (IPO) of shares, although there are also substantial differences.[35] The application of blockchain technology in ICOs facilitates peer-to-peer transactions between the ICO issuer and the ICO investors, significantly decreasing costs compared to the expensive, complex, and time intensive process of, e.g. IPOs.[36] The absence of a trusted intermediary is accepted by the parties due to the transparency, irreversibility, computational logic, and constant distribution of data to all of the participants of the network, i.e. the blockchain technology solves the double-spending issues that are typically addressed by trusted intermediaries. Further, the limited flexibility in smart contracts and the feature of irreversibility should generally not be problematic as there will typically be no need for making corrections with a retroactive effect or adapting to changing circumstances in the one-off contractual relationship between the ICO issuer and the ICO investors. Finally, the costs of coding per contract may be limited as the borderless nature and inclusive element of blockchain technology as applied in ICOs allows 'micro investors' all around the world to invest [37] as opposed to, e.g. traditional venture capital funds which – in general – only allow a smaller group of elite investors to invest.[38]

From the perspective of the ICO investors, the motivation for investing in ICOs generally rests on the hope that the funded project becomes a success, implying that the value of the cryptocurrencies increases as well as the potential for various forms of accruing returns on investment – depending on the specific rights associated with the issued cryptocurrencies.

Consequently, the intense popularity experienced by the phenomenon as a means of financing crypto start-up companies should not be surprising.[39] However, the growth in the number of and the capital raised through ICOs have been decreasing for some time.[40] Although there may be several reasons for this decrease, the fact that ICOs generally remain less or even unregulated does impose a number of risks and legal uncertainties upon the ICO investors as well as the ICO issuers, which arguably may be a contributing factor to the observed decrease.[41] From a domestic tax perspective, capital gains and losses from the sales of cryptocurrencies have been subject to debate in the media and analysis in academia, and it has been argued that ICO issuers as well as ICO investors are typically subject to tax on such capital gains.[42] However, the fact that ICO investors may very well be tax residents in another jurisdiction in which the ICO is conducted may imply that the taxing rights to such income should be allocated according to an applicable tax treaty – an analysis that, to the knowledge of this author, has not yet been conducted. Hence, in the remaining part of this article, the focus will be on the tax treaty classification of the capital raised by the ICO issuers, the ICO investors' return on invested capital, and the ICO investors' gains from the sale of the cryptocurrencies.

Notes

[34] ICOs has previously been discussed in the international literature, *see* e.g. C. Fisch, *Initial Coin Offerings (ICOs) to Finance New Ventures*, 34(1) J. Bus. Venturing 2 (2019); W. A. Kaal & M. Dell'Erba, *Initial Coin Offerings: Emerging Practices, Risk Factors, and Red Flags*, U. of St. Thomas (Minnesota) Legal Studies Research Paper No. 17–18 (2018). In a tax perspective, *see* e.g. Bal, *supra* n. 12, at 40 et seq.; A. Bal, *VAT Treatment of Initial Coin Offerings*, 29(3) Int'l VAT Monitor 118 et seq. (2018); A. Bal, *Blockchain, Initial Coin Offerings and Other Developments in the Virtual Currency Market*, 20(2) Derivatives & Fin. Instruments (2018) and Kjærsgaard & Arfwidsson, *supra* n. 12, at 620 et seq.

[35] Kaal & Dell'Erba, *supra* n. 34, at 3; Bal, *supra* n. 12, at 40–41 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 622.

[36] A tendency towards a declining hegemony of bank financial intermediaries such as commercial banks has also been observed on the 'traditional' market for corporate financing, *see* S.-E. Bärsch, *Taxation of Hybrid Financial Instruments and the Remuneration Derived Therefrom in an International and Cross-border Context* 14 (Springer 2012).

[37] This seems to be in accordance with the changing role of the form of investment in corporations. Previously, the majority of corporations were often times financed by controlling shareholders through a well-defined debt contract, the tendency today is portfolio investments, *see* Bärsch, *supra* n. 36, at 13. However, it should be noted that the People's Bank of China has labelled ICOs *'illegal and disruptive to economic and financial stability'; see* W. Zhao, *China's ICO Ban: A Full Translation of Regulator Remarks* (5 Sept. 2017), https://www.coindesk.com/chinas-ico-ban-a-full-translation-of-regulator-remarks (accessed 13 Mar. 2020).

[38] A tendency towards a declining hegemony of bank financial intermediaries such as commercial banks has also been observed on the 'traditional' market for corporate financing, *see* Bärsch, *supra* n. 36, at 14.

[39] Kaal & Dell'Erba, *supra* n. 34, at 2; Fisch *supra* n. 34, at 3–4 and S. Adhamia, G. Giudicib & S. Martinazzi, *Why Do Businesses Go Crypto? An Empirical Analysis of Initial Coinofferings*, 100 J. Econ. & Bus. 66–67 (2018).

[40] It should be noted that there is no platform upon which ICOs must occur, and there is no compulsory registration for ICOs hence it is difficult to keep track of the ICO market, *see also* Fisch *supra* n. 34, at 3 and Data Driven Investors, *The ICO Market in 2019* (21 July 2019), https://medium.com/datadriveninvestor/the-ico-market-in-2019-a5c44c97b686 (accessed 13 Mar. 2020).

[41] Among the most significant risks are: *Limited information* in the whitepaper to an ICO as it does not require the support of a reputable banking institution as underwriters while it typically only provides the ICO investor with a description of the (intended) project as well as the functioning of the cryptocurrency; *early stage of the ICO issuers' business*, implies that ICO investors invest in the future promise of a concept that has not yet been tested from a business perspective; *volatility* inter alia due to the fact that capital may be raised at a very early stage of a project, the limited amount of information provided in the white paper, a relative illiquid market, and (typically) a speculative purpose of investments are all factors that imply a risk of very high volatility and *complexity* since it suggests that it may be very difficult for ICO investors to make a comprehensive assessment of the intended project and the cryptocurrency, including the risk of abuse, fraud, or coding errors, as the technical aspects of the underlying technology are very complex and not easy to understand without a technical background. *See also* Bal, *supra* n. 12, at 42 & 43 and Kaal & Dell'Erba, *supra* n. 34, at 14–19 and OECD *The Tokenisation of Assets and Potential Implications for Financial Markets, OECD Blockchain Policy Series* 10 (OECD Publishing 2020), in which the negative consequences of, lack of, or ambiguous regulation is discussed.

[42] *See* e.g. Bal, *supra* n. 12, Ch. 5 in respect of the United States, the United Kingdom, Germany, and the Netherlands, Kjærsgaard & Arfwidsson, *supra* n. 12, at 620 et seq.; Maples, *supra* n. 12, at 181; Rubinstein & Vettori *supra* n. 12; Bilaney, *supra* n. 12, and Brockdorff, Bielik & Bronzewska, *supra* n. 12. In respect of taxation of the ICO issuer, *see* e.g. Kjærsgaard & Arfwidsson, *supra* n. 12, at 620 et seq.

3 Initial coin offering and current international tax principles

There is no current common international definition of the term 'cryptocurrency'. However, cryptocurrencies have previously been described as decentralized convertible virtual currencies that are protected by cryptography.[43] In addition to this, they are typically divided into two main categories: coins and tokens.[44] Coins are generally powered by separate blockchains that operate independently from other blockchains, and they are intended to function as an alternative to official national currencies although, in practice, investment is often done for speculative purposes.[45] On the other hand, tokens are units of value that rely on an already existing blockchain, and they are issued through an ICO.[46] The most popular coin and token as of today are bitcoin and ether, respectively, with current market capitalizations of more than USD 95 billion and USD 13 billion, respectively.[47]

In an ICO, the ICO issuer sells tokens that typically imply different obligations and rights for the ICO issuer and the ICO investors and, as the structuring possibilities of ICOs are – in principle – infinite, tokens have been developed with a wide range of different terms and conditions. However, as the quality of information provided in whitepapers is typically inadequate and opaque with regards to offering details on governance and the use of proceeds, it is not without challenges to classify tokens in practice.[48] Nonetheless, they are often divided into security tokens (encompassing equity tokens and debt tokens) and utility tokens.[49] Empirical data suggest that not only the majority of issued tokens contain utility components but also that it is not uncommon that tokens offer the ICO investors a type of profit participation right.[50] In summary, ICOs can be considered as one of the latest innovations within capital raising which, due to the endless structuring possibilities, actualizes the tax challenges known from the field of hybrid financial instruments,[51] inter alia in respect of classification for tax treaty purposes.

3.1 *Classification of Payments Related to ICOs*

The relevance of the classification of cross-border payments is justified by the practical significance of the OECD Model Tax Convention according to which cross-border income should be classified under a number of categories, and the right to tax this income is allocated to each state depending on the classification.[52] Yet, as tax treaties only allocate the right to tax a payment, whereas domestic tax regulation determines whether a payment is actually subject to tax, it only becomes relevant to allocate the taxing rights to payments related to ICOs for tax treaty purposes if it has been established that the payment is taxable according to the domestic tax law of the contracting states. However, the domestic tax laws generally impose taxes on non-residents' income that is derived from various domestic sources[53] and, accordingly, from this point on – unless explicitly stated otherwise – it will be assumed that income related to an ICO will be taxable in the contracting states for domestic tax law purposes, although it is acknowledged that this may, in practice, not always be the case.

Notes

[43] Bal, *supra* n. 12, at 38.

[44] *See* e.g. Bal, *Blockchain, Initial Coin Offerings and Other Developments in the Virtual Currency Market, supra* n. 34, at 1 and Bal, *supra* n. 12, at 38 & 39 where the author categorizes cryptocurrencies as tokens and coins.

[45] *See* e.g. Kjærsgaard & Arfwidsson, *supra* n. 12, at 621.

[46] Bal, *Blockchain, Initial Coin Offerings and Other Developments in the Virtual Currency Market, supra* n. 34, at 1 and Bal, *supra* n. 12, at 38 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 622.

[47] CoinMarketCap, *Top 100 Cryptocurrencies by Market Capitalization*, https://coinmarketcap.com/ (accessed 13 Mar. 2020).

[48] Adhamia, Giudicib & Martinazzi, *supra* n. 39, at 73.

[49] *See* e.g. C. Fis et al., *Motives and Profiles of ICO Investors*, J. Bus. Res. (2019); Fisch *supra* n. 34, at 3.

[50] Adhamia, Giudicib & Martinazzi, *supra* n. 39, at 64 et seq. The authors classify 253 real-world ICOs. Further, G. Fridgen et al., *Don't Slip on the Initial Coin Offering (ICO) – A Taxonomy for a Blockchain-Enabled Form of Crowdfunding* Conference Paper (June 2018), https://www.researchgate.net/publication/325131210_Don't_Slip_on_the_Initial_Coin_Offering_ICO_-_A_Taxonomy_for_a_Blockchain-enabled_Form_of_Crowdfunding (accessed 13 Mar. 2020). The authors classify fifty-two real-world ICO.

[51] The international tax literature on hybrid financial instruments is vast and several important contributions exist; *see* e.g. Bundgaard, *supra* n. 14; G. Lopes Dias, *Tax Arbitrage Through Cross-Border Financial Engineering*, 50 Series Int'l Tax'n (Wolter Kluwer Law and Business 2015); Bärsch, *supra* n. 36; IFA, *Tax Treatment of Hybrid Financial Instruments in Cross-Border Transactions*, IFA Cahiers, vol. 85a (Wolters Kluwer International 2000) and IFA, *The Debt-Equity Conundrum*, IFA Cahiers, vol. 97b (Wolters Kluwer International 2012).

[52] C. H. Lee, *Impact of E-Commerce on Allocation of Tax Revenue Between Developed and Developing Countries*, in *International Tax Law*, vol. 1 (R. S. Avi-Yonah ed., Edward Elgar 2016); M. J. Graetz & M. M. O'Hear, *The 'Original Intent' of US International Taxation* in: *International Tax Law*, vol. 1 (R. S. Avi-Yonah ed., Edward Elgar 2016); H. D. Rosenbloom & S. I. Langbein, *United States Tax Treaty Policy: An Overview*, 19 Colum. J. Transnat'l L. 359 (1981) and Bärsch, *supra* n. 36, at 94; Bundgaard, *supra* n. 14, at 9; Lopes Dias, *supra* n. 51, at 111.

[53] *See* e.g. W. Hoke, *South Korean Cryptocurrency Exchange Challenges Tax Assessment*, Tax Notes International (21 Jan. 2020). The author reports that bithumb, a major South Korean cryptocurrency exchange, challenges a tax assessment for unpaid withholding tax on gains realized by nonresidents selling cryptocurrencies. Further, according to Lee & Yoon, *supra* n. 17, at 18, every country covered in the branch reports relies on a withholding system to collect a number of taxes concerning nonresidents. Further, these authors state that withholding taxes applies almost universally in international transactions classified as interest, dividends, royalties, and even certain forms of business profits not attributed to permanent establishments. Further, as a general rule, the tax treatment of equity financing and debt financing follows the same basic principles around the world; *see* Bundgaard, *supra* n. 14, at 42; Piltz, *General Report*, in *International Aspects of Thin Capitalization*, IFA Cahiers, vol. 81b, 87 et seq. (Wolters Kluwer International 1996) and Brown, *General Report*, in *The Debt-Equity Conundrum*, IFA Cahiers, vol. 97b, 17 et seq. (Wolters Kluwer International 2012).

It should be noted that the classification of income for tax treaty purposes should be based on a thorough understanding of the specific transaction, including the specific terms of the concluded contract, hence, the classification of payments related to ICOs may, in practice, vary according to these terms. However, for the purpose of structuring this article, the analysis will be conducted based on fictive tokens in accordance with the rights and obligations typically associated with utility tokens and security tokens.

As neither tokens nor hybrid financial instruments, in general, are defined or even explicitly mentioned in the OECD Model, income from tokens should be dealt with according to the general tax treaty provisions in accordance with the economic attributes of the token, including the rights and obligations of the ICO issuer and ICO investors.[54] Depending on the economic attributes of the specific token, several provisions may be relevant to consider, including Article 10 of the OECD Model on dividends and Article 11 of the OECD Model on interest payments, which are considered the most relevant provisions with respect to 'traditional' hybrid financing instruments since the covered payments reflect the yield on equity and debt.[55] However, with regards to income from tokens, Article 7 of the OECD Model on business income, Article 12 of the OECD Model on royalties, Article 13 (5) of the OECD Model on capital gains, and Article 21 of the OECD Model on 'other income' may also be relevant to consider. The distinction between these income categories is relevant as only some of them allow the source state to tax and as the accepted tax rate at source differs between the income categories.

Due to the (often) hybrid nature of some tokens, a number of rights and obligations may suggest that the token should be classified as debt, for instance, whereas other rights and obligations may suggest that the token should be classified as equity or business income. In this respect, it should be noted that the approach taken in this article follows an integration approach, often referred to as the blanket approach.[56] This implies that a hybrid financial instrument is considered as one instrument, i.e. the instrument should be classified and treated as either interest-generating debt, dividend-generating equity, or other income generating asset based on whether the distinctive characteristics of the instrument are more debt-like or equity-like or provide other economic rights.[57] An alternative approach is the so-called bifurcation approach for which hybrid financial instruments are to be split up into their underlying separate, distinctive components.[58] It is obvious that the choice of approach may have important practical consequences. For example, if tokens are classified according to the blanket approach and if only one contractual element, i.e. the distinctive characteristic, gives rise to source taxation, the entire payment will be subject to source taxation. Conversely, if the bifurcation approach is applied, source taxation will only apply to part of the consideration. Although no explicit reference is made to the blanket approach in the OECD Model or its commentaries, support may be found in the commentaries to Article 12 of the OECD Model dealing with payments under mixed contracts. It is stated there that payable consideration under mixed contracts should, in principle, be broken down either according to the information provided in the contract or by means of a reasonable apportionment of the entire amount of consideration pursuant to the various parts; and that, subsequently, the appropriate tax treatment, including classification, should be applied to each apportioned part. However, if one part of what is being provided constitutes 'by far the principal purpose of the contract' while 'the other parts stipulated therein are only of an ancillary and largely unimportant character', the treatment applicable to the principal part should be applied to the whole amount of the consideration.[59] Considering that the OECD has found the need to give explicit guidance to split-up mixed contracts under Article 12 but not under other income categories may suggest that the approach described under Article 12 deviates from the general approach applied in the OECD Model.

The payments relevant for tax treaty classification purposes are illustrated in Figure 3 which also provides a structural overview of the reminder of this article.

Notes

[54] *See* Bundgaard, *supra* n. 14, at 6. The author states that, in modern finance, companies can offer investors any set of rights that can be described by words, subject to any conceivable set of qualifications, and in consideration of any conceivable set of offsetting obligations in exchange for capital.

[55] Bundgaard, *supra* n. 14, at 138.

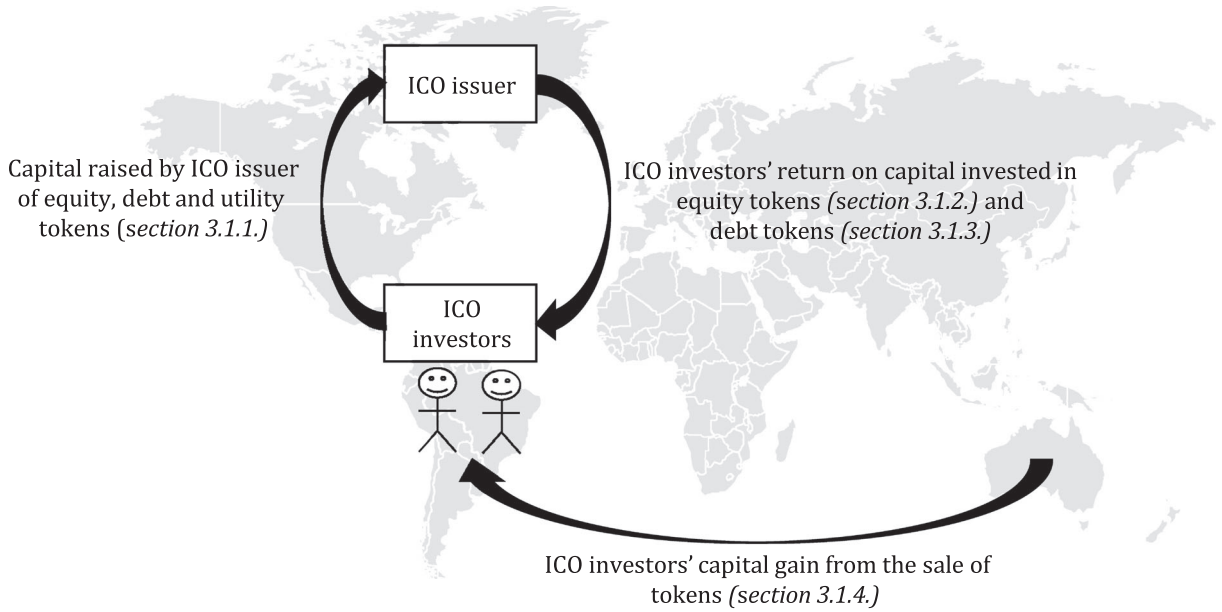
[56] A similar approach is applied in respect of 'traditional' hybrid financial instrument by Bundgaard, *supra* n. 14, at 138, and W. Haslehner, *Article 11. Interest*, in *Klaus Vogel on Double Taxation Conventions* 927 (4th ed., E. Reimer & A. Rust eds, Kluwer Law International 2015) and Bärsch, *supra* n. 36, at 92 & 107. In accordance with the fundamental principle of neutrality, which forms part of the Ottawa Taxation Framework Conditions as adopted by the OECD, taxation should seek to be neutral and equitable between traditional and digitalized business models. On this basis, it is argued that a similar approach should be followed when classifying income related to ICOs.

[57] Bärsch, *supra* n. 36, at 92. The author argues that the decisive characteristic should be based on a benchmark, e.g. on more than one distinctive characteristic, i.e. multi determinative (possibly weighted) characteristics.

[58] Bärsch, *supra* n. 36, at 107. The author states that the bifurcation approach is not permitted for tax treaty purposes.

[59] *See OECD Model: Commentaries to Article 12*, paras 11.6 and 17 (2017). For a detailed analysis of the treatment of mixed contracts under Art. 12 OECD Model (2017), *see* e.g. L. F. Kjærsgaard, *Allocation of the Taxing Right to Payments for Cloud Computing-as-a-Service*, 11(3) World Tax J. (2019), s. 3.1.1.

Figure 3 Illustration of Payments Related to ICOs That May Be Relevant to Classify for Tax Treaty Purposes, i.e. (1) Capital Raised by the ICO Issuer, (2) ICO Investors' Return on Capital Invested in Equity Tokens, (3) ICO Investors' Return on Capital Invested in Debt Tokens, and (4) the ICO Investors' Gain from the Sale of the Tokens. In Its Most 'Simple' Version, Utility Tokens Do Not Imply an Accruing Return on Investment to the ICO Investor but only the Potential Gain from the Sale of the Utility Tokens (the Author's Creation).



3.1.1 *Classification of Capital Raised by the ICO Issuer*

Corporations can raise capital from either internal or external sources. Whereas internal capital comes from retained earnings, external capital is obtained from other economic agents.[60] With regards to external capital, in the international tax literature, it has previously been assumed that all financing alternatives should be characterized as either debt or equity[61] – however, without there being a commonly accepted definition of debt and equity for international tax purposes. Nevertheless, from an 'ideal-typical' perspective, pure equity capital is generally characterized by only providing the investor financial rights that are contingent on the economic situation and at the discretion of the capital borrower, i.e. the ICO issuer in the case of an ICO. Furthermore, the return on investment in equity capital is only paid after all pure (and matured) debt holders have been remunerated, and the repayment amount (if any) will not be provided before liquidation. In addition, pure equity capital is characterized by granting the investor certain non-financial rights (e.g. voting power and the right to certain information) that enable the investor to control the capital borrower, i.e. the ICO issuer in an ICO.[62] In contrast, pure debt capital is characterized by granting fixed rights that are not determined by reference to the economic result of the capital borrower, i.e. the ICO issuer in an ICO, and such investor is not granted any power to control the capital borrower.[63] Stated differently, investors in pure equity capital are exposed to the capital borrower's entrepreneurial risk as well as profitability, and they have (some) control over both while this does not apply for investors in pure debt capital.[64]

Although these typical characteristics are not explicitly referred to as guiding tax principles for classifying capital raised, e.g. in an ICO, they may be relevant for further

Notes

[60] Bärsch, *supra* n. 36, at 9.

[61] Based on this, an equity contribution does necessarily imply participation in the share capital of a company; *see* e.g. Bundgaard, *supra* n. 14, at 43.

[62] Bärsch, *supra* n. 36, at 83.

[63] *Ibid.*

[64] *Ibid.*, at 83 & 84 summarizes the differences in Table 3.1.

analysis by underlying the demarcative tax classification of tokens issued in an ICO and the associated return on investment.[65] The inclusion of typical characteristics of pure equity capital and pure debt capital may also be supported by the results of previous studies, which conclude that the international and supranational sources relevant for classification, as well as the company law, the insolvency law and the financial accounting generally make use of these distinctive characteristics.[66]

Applying the above-mentioned considerations to capital that is raised through ICOs, it could be argued, on the one hand, that such capital should always be regarded as internal capital that is earned from the sale of unique digital assets, i.e. the tokens. On the other hand, it could also be contended that, as the capital raised through an ICO should be classified according to the distinctive character of the specific tokens, the capital that is raised may not always be classified as internal capital from retained earnings.

In general terms, utility tokens function as a payment method within the network funded by the ICO as they can be exchanged for (future) goods and services developed through the project funded by the ICO, i.e. internal capital.[67] However, as ICO investors are typically purchasing utility tokens to fund the actual creation of the products – the success of which determines the possibility of the increase in token value – certain similarities with external capital are also present, i.e. the ICO investor's return on investments in utility tokens is contingent on the success of the funded project. However, based on the ideal-typical characteristics of equity, it seems unlikely that capital raised from the issuance of utility tokens should be characterized as equity as utility tokens will not typically grant the ICO investor financial *rights* that are contingent on the economic situation of the funded project or the ICO issuer and at the discretion of the ICO issuer. Instead, a utility token is argued to be a unique digital asset that – depending on the market demand and supply of the utility token itself as well as its usage – may earn the ICO investor a return on the investment upon its sale. In addition, utility tokens should, based on the ideal-typical characteristics of debt, generally not be classified as debt as they will typically not grant the ICO investor non-contingent rights to repayment or return on investment.[68] Hence, it is argued that capital raised through an ICO of utility tokens should be classified as internal capital earned from the sale of unique digital assets, representing a right to future product developed under the funded project.

On the other hand, security tokens grant a potential future return on the invested capital, and they may, like other financial instruments, combine a variety of characteristics and features with specific rights and obligations, e.g. financial rights and obligations and certain governance rights.[69] More specifically, security tokens may include share-like features such as voting rights, the right to appoint management of the funded project, and profit participation rights in the project funded by the ICO proportioned to the number of tokens that are owned. Alternatively, security tokens may include debt-like features, such as short-term loan with repayment of the principal amount as well as a variable or fixed interest during a specified time period. Such features naturally associate these tokens with either equity or debt; however, in practice, security tokens may also be hybrids with features from both shares and bonds.[70] On this basis, it cannot be precluded that capital raised by issuing tokens with equity or debt features may, in fact, be considered equity or debt represented by a unique digital asset that has no other value or purpose than granting the ICO investor financial and non-financial rights, i.e. a form of external capital.

Notwithstanding whether the capital should be regarded as internal or external capital, the structure of the OECD Model seems to prescribe that the classification of the capital raised through an ICO is dependent on the token issued and, therefore, it should be determined (1) whether 'income' – according to domestic tax law – is realized by the ICO issuer, (2) what the distinctive characteristic of the token is, and (3) how the right to tax payments for the distinctive characteristic should be allocated according to the OECD Model.

Re. 1. Has the ICO issuer realized 'income'? As the analysis conducted in this article focuses on the allocation of taxing rights – and thus classification – for tax treaty purposes, it is outside the scope to conduct a thorough analysis of the concept of 'income' that may be taxable according to domestic tax laws. However, given that classification, for the purpose of

Notes

[65] Bundgaard, *supra* n. 14, at 42. The author also notes that the tax consequences are not always linked directly to the debt or equity classification for economic and accounting purposes as tax consequences arise from legislation primarily addressing the treatment of the return on investment. Further, *see* Bärsch, *supra* n. 36, at 85 in regard to classification of 'traditional' hybrid financial instruments.

[66] Bärsch, *supra* n. 36, at 91.

[67] Bal, *supra* n. 12, at 39 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 622. T. Sameeh, *ICO Basics: The Difference Between Security Tokens and Utility Tokens* (29 Mar. 2018), https://www.cointelligence.com/content/ico-basics-security-tokens-vs-utility-tokens/ (accessed 13 Mar. 2020). Fisch *supra* n. 34, at 3. Hence, leaving the technical construction aside, the difference between coins and utility tokens is mainly the purpose for which they are created, i.e. as a general payment method versus a payment method within a specific network. This implies that, whereas the value of coins is based solely on market supply and demand of the coin itself, the value of a utility token is based on the value of the goods or services within the network. Compared to security tokens, the intended use of utility tokens is more similar to the use of coins although investment in utility tokens, to some extent, appears to be done for speculative purposes.

[68] D. Zetzsche et al., *The ICO Gold Rush: It's a Scam, It's a Bubble, It's a Super Challenge for Regulators*, University of New South Wales Law Research Series, Law Working Paper Series, no. 2017–011 (2 July 2018).

[69] Bal, *supra* n. 12, at 39 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 622. Sameeh, *supra* n. 67 and Bärsch, *supra* n. 36, at 78–82. The author discusses the distinctive characteristics of financial instruments in general. Fisch *supra* n. 34, at 3.

[70] Bal, *supra* n. 12, at 39 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 622; Sameeh, *supra* n. 67; Fisch *supra* n. 34, at 3.

allocating taxing rights according to a tax treaty becomes relevant only if the payment is recognized as taxable income according to the domestic tax law of the contracting states, some high-level and general considerations will be provided. In respect of the concept of 'income', it has previously been argued in the international tax literature that, in the economics of the twentieth century, the concept should be understood in accordance with *wealth accrual*, which relates to the economic ability of persons.[71] In other words, income may be determined as the disposing power of a person who has not impaired his capital or incurred debts.[72] Accordingly, provided that security tokens with debt features do, in fact, constitute a legal debt-claim that is valid and enforceable,[73] it is argued that capital raised by issuance of debt tokens generally should not constitute 'income' for the ICO issuer under domestic tax law. Accordingly, classification for tax treaty purposes will not be relevant insofar as the payment from the ICO investor is offset by an obligation of the ICO issuer to pay back the loan so that there is no net increase in economic power of the ICO issuer.

Further, it could be argued that capital raised by the issuance of security tokens with equity features does not constitute 'income' under domestic tax law, implying that classification and allocation of taxing rights for tax treaty purposes would not be relevant. The argument would be that the payment from the ICO investor for the economic right embedded in the equity token equals the impaired capital of the ICO issuer. Stated differently, accepting the capital raised from the issuance of equity tokens as 'income' would violate the concept of income as the gains derived by the ICO issuer are not 'real economic benefits' but, instead, what has been referred to as 'illusory gains' given that the ICO issuer's economic power has not improved.[74] However, as argued by *Kevin Holmes*, illusory gains are often recognized as 'income' for domestic tax purposes because the legal concept of income recognizes only the flow element but not the diminution-in-value element.[75] On this basis, it is not unlikely that capital raised through the issuance of equity tokens will be recognized as 'income' under domestic tax law purposes,[76] implying that the capital raised – if taxable according to the domestic tax law of the ICO issuer and the ICO investor – should be classified for tax treaty purposes.

Similarly, it seems most likely that capital raised by issuing utility tokens should generally be considered 'income' under domestic tax law as a repayment obligation will typically not be a component of utility tokens.[77] In this case, the capital raised by the ICO issuer should be classified for tax treaty purposes.

Re. 2. What is the distinctive characteristic of the token? Independently of the economic attributes attached to a token, the ICO issuer – in simple terms – sells a unique digital asset to the ICO investor, i.e. the ownership of the issued token is transferred to the ICO investor. However, as stated above, it may be argued that the economic attribute of the specific tokens is, in fact, the distinctive economical characteristic of the instruments – similar to the distinctive character of bearer shares for which the distincive economical characteristic is not the physical paper but the ownership in a company represented by the physical paper. Hence, with regards to utility tokens, it may be argued that the distinctive characteristic is not the sale of a unique digital asset but, instead, the right to a (prepaid) future product, implying that the payment should be classified according to what is being paid for. Similarly, it could be argued that the distinctive characteristic of equity tokens is the right to future profit from the funded project and not the unique digital asset in itself. In accordance with the blanket approach, hybrid financial instruments must be classified *entirely* according to whether the (compositions of) distinctive characteristics are more sale of asset-like *or* more prepaid right future product-like or profit-like. This approach also seems to be in accordance with the fact that the components (i.e. the unique digital asset and the specific rights) are technically and commercially inherently linked.

Hence, although identifying the distinctive characteristics of tokens should be based on a case-by-case assessment, for

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[71] Also referred to as the Haigh-Simons concept of income or the Schanz-Haigh-Simons concept of income. With reference to the main contributions of G. Von Schanz, *Der Einkommensbegriff und die Einkommensgesetze*, Finanz-Archiv (1896); R. Haig, *The Concepts of Income – Economic and Legal Aspects*, The Federal Income Tax (Columbia University Press 1921) and H. Simons, *Personal Income Taxation – The Definition of Income as a Problem of Fiscal Policy* (University of Chicago Press 1983). For a thorough analysis, *see* K. Holmes, *The Concept of Income – A Multi-Disciplinary Analysis*, Doctoral Series Vol. 1, (IBFD 2001), in particular Ch. 2, Foundation Concept of Income. *See also* Bal, *supra* n. 12, at 61–63.

[72] *See* Holmes, *supra* n. 71, at 57–59.

[73] Bundgaard, *supra* n. 14, at 105. The author states that the term 'debt' is often adopted from civil law concepts and, in some countries, information found in the balance sheet can be used directly for tax law purposes while, in other countries, the information found in financial statements may only be used to a limited extent.

[74] Holmes, *supra* n. 71, at 341 & 342 and Ch. 8 in general.

[75] Holmes, *supra* n. 71. The author exemplifies 'illusory gains' that cannot be considered 'real economic benefits' but will typically be considered 'income' from a domestic tax perspective: *inflationary gains*, i.e. an increase in the value of assets attributable to an economy enduring inflation, at 342–348; *bonus share issues*, i.e. the capitalization of a company's profits by way of a bonus issue to shareholders does not increase each shareholder's wealth as the net assets of the company do not change (the number of shares in the company held by a shareholder increases, however, the value per share decreases so that the aggregate value of each shareholder's investment is the same before and after the bonus issue.) at 348–350, and *share repurchases*, i.e. assuming the value of the consideration from the company to the shareholder equals the value of the shares, it is merely one type of asset (shares) i.e. substituted for another type of asset (cash), at 350 & 351.

[76] *See* e.g. Kjærsgaard & Arfwidsson, *supra* n. 12, at 631. The authors conclude that capital raised through equity tokens (referred to as share-like tokens) should most likely be recognized as taxable income under Danish and Swedish domestic tax law.

[77] *See* e.g. Kjærsgaard & Arfwidsson, *supra* n. 12, at 628. The authors conclude that capital raised through utility tokens should most likely be recognized as taxable income under Danish and Swedish domestic tax law.

the purpose of analysing the tax treaty classification of the capital raised through the issuance of utility tokens and equity tokens, it will be assumed that the economic attributes of the utility token (the right to prepaid future products) and the equity token (the right to future profit from the funded project) should be considered as the distinctive characteristics that are relevant for classifying the capital raised through the ICOs according to the OECD Model. This assumption also seems to be in accordance with the fundamental principle of neutrality as stated in the Ottawa Taxation framework and adopted by the OECD.[78] According to this principle, taxation should seek to be neutral and equitable between traditional and digitalized business models such that business decisions are motivated by economic considerations rather than tax considerations, i. e. taxpayers in similar situations performing similar transactions should be subject to similar levels of taxation. Hence, it is argued that the underlying economic substance of a financial instrument should generally be considered the distinctive character, and this should not be influenced by whether a financial instrument is traded and registered at a trusted intermediary, only existing as a physical written contract between the parties or stored on a blockchain.

Re. 3. How should the income be classified? As a consequence of considering the right to prepaid future products as the distinctive characteristic of utility tokens, the classification may vary depending on what the future product is as the classification of payments for tax treaty purposes should be based on a thorough understanding of the specific transaction, including the specific terms of the concluded contract. Hence, the classification of the capital raised by issuing utility tokens may, in practice, vary according to these terms. Nonetheless, considering the digital and intangible nature of the typical product developed by crypto-start-ups through capital raised in ICOs,[79] the most important classification issue that arises – assuming that all such capital received by the ICO issuer is received in the course of conducting business – will typically be the distinction between business income and royalties corresponding to Article 7 and Article 12 of the OECD Model, respectively.[80] This is based on the fact that numerous bilateral tax treaties allow the source state (i.e. the residence state of the ICO investor) to tax royalty payments whereas the right to tax business income is exclusively granted to the residence state of the ICO issuer unless the income should be attributed to a permanent establishment located in the residence state of the ICO investor.[81]

Even though the definition of royalties varies across bilateral tax treaties, it is often inspired by the definition of royalties included in Article 12 (2) of the OECD Model:

> *{P}ayments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.*

It should be noted that this definition includes 'payment' in monetary and non-monetary forms and, hence capital raised in other cryptocurrencies such as bitcoins and ethers may be classified as royalties according to the OECD Model – even though cryptocurrencies are generally not considered as money under domestic regulations.[82] Importantly, however, the classification of such payments as royalties remains subject to the payment being provided in return for (1) 'the use of' or 'the right to use' and (2) one of the specific assets or information included in the definition in Article 12 (2) of the OECD Model. Further, the guidance on mixed contracts included in the commentaries to article 12 (2) of the OCD Model should be observed.[83] As a result, any references to intangible assets in the whitepaper will be of particular importance when classifying capital raised through the issuance of utility tokens.

Concerning equity tokens, the issues of classifying the capital raised by the ICO issuer is argued to be whether the capital should be classified as capital gains, business profit, or 'other income' under Article 13(5), Article 7, or Article 21 of the OECD Model, respectively.[84] However, the practical relevance of which classification applies is limited, i.e. neither of the provisions allow for source taxation - assuming that the capital raised are not attributable to a permanent establishment of the ICO issuer. Nonetheless, the issuance of equity tokens may evoke the contentious distinction between income and capital receipts.[85] As Article 7 and Article 21 of the OECD Model are both secondary to Article 13, it should

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[78] The principle of neutrality forms part of the Ottawa Taxation Framework Conditions as adopted by the OECD *see* OECD, *supra* n. 18, at 12.

[79] Fisch *supra* n. 34, at 11, where the author include a set of dummies and states that while all ventures revolve around distributed ledger technology and thus belong to the knowledge-intensive IT sector, a more fine-grained differentiation is analysed, i.e. entertainment (e.g. gaming and gambling), finance (e.g. payments and investing), infrastructure (e.g. data storage and machine learning), and others.

[80] *See* e.g. Technical Advisory Group on Treaty Characterization of Electronic Commerce Payments, *Tax Treaty Characterisation Issues Arising from E-Commerce*, Report to Working Party No. 1 of the OECD Committee on Fiscal Affairs 5 (1 Feb. 2001); OECD, *supra* n. 1, at 104. It is argued that in respect of classifying payments for digital products and services, in general, most challenges are experienced in the distinction between business income and royalties, corresponding to Article 7 and Article 12 of the OECD Model, respectively.

[81] Lee & Yoon, *supra* n. 17, at 21 and H. Litwinczuk, *Poland: Payments for Copyrights of Computer Software as Royalties*, in *Tax Treaty Case Law around the Globe* 288–299 (M. Lang et al. eds, Wolters Kluwer Law & Business 2011).

[82] *See* e.g. Bal, *supra* n. 12, at 50–53 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 623–625.

[83] *supra* note 59.

[84] This will generally also apply to debt tokens not constituting a valid and enforceable legal claim.

[85] *See* e.g. Holmes, *supra* n. 71, at 173–178.

initially be analysed whether the capital raised may be classified as capital gains.

Capital gains are not defined in detail in Article 13 of the OECD Model nor in its commentaries, however, it is stated in the commentaries that the words 'alienation of property' are:

> *used to cover in particular capital gains resulting from the sale or exchange of property and also from a partial alienation, the expropriation, the transfer to a company in exchange for stock, the* ***sale of a right****, the gift and even the passing of property on death".*[86] *(author's emphasizing)*

Hence, despite that equity tokens do generally not grant the ICO investors with actual ownership in the ICO issuer similar to shares,[87] it seems plausible from a literal interpretation of the commentaries that the capital raised through the issuance of equity tokens may be classified as capital gains under Article 13 of the OCED Model. This is based on the argument that the distinctive characteristic of equity tokens is the financial and non-financial rights in the funded project or the ICO issuer. It is also contended that an ICO implies the sale of the full right and ownership of the equity token and its implied financial and non-financial rights which the ICO investor is typically free to sell on a secondary market.

Further, the domestic courts' interpretation of the distinction between concepts of income and capital receipts has previously been analysed in the international tax literature, and *Kevin Holmes* suggests a 'judicial proposition' implying that[88]:

1) Income must be realized.
2) Income requires separation from its source.
3) Income requires a profit making-purpose or motive or a profit-making scheme or undertaking.

It seems likely that the capital raised through the issuance of equity tokens will fulfil requirement (1) and (3) as – based on the above – it will likely be recognized as an income/illusory gain for tax purposes. Considering that the ICO is conducted for the purposes of raising capital for (continuous) research and development under the funded project, i.e. the ICO issuer has a profit making-purpose or motive when issuing equity tokens, will further validate this. However, it could be argued that requirement 2) is not fulfilled as the equity tokens may be seen as the source itself and hence not separable from its source. Stated differently, analogues to the example of an apple tree (the source) producing apples (generating income),[89] the equity tokens may represent the right to a part of the apple tree potentially producing apples in the future, however, if the tree fails to provide, i.e. if the funded project will never be successfully commercialized, no apples will be produced, and hence no income will be generated from the source. This also seems to adhere to the argumentation of other legal scholars arguing that Article 13 of the OECD Model encompasses any extraordinary enrichment from the alienation of operating assets while Article 7 of the OECD Model applies whenever industrial or commercial profits from the ongoing sale of products are concerned.[90] In other words, the capital raised from issuing equity tokens should be classified as business income under Article 7 of the OECD Model rather than capital gains under Article 13 of the OECD Model only if the ICO issuer conducts business with sale of equity tokens and similar assets.

Hence, although there may be divergent domestic practices in respect of the distinction between income and capital receipts,[91] based on the existence of a profit making-purpose underlying the issuance of equity-tokens through an ICO and the fact that, in the context of a business life-cycle, the issuance of equity tokens results in extraordinary enrichment from the sale of economic rights, it is argued that capital raised through the issuance of equity tokens should most likely be classified as capital gains under Article 13 (5) of the OECD Model. Accordingly, only the residence state of the ICO issuer can tax the capital raised, assuming that the capital gains may not be attributed to a permanent establishment of the ICO issuer.

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[86] *See OECD Model: Commentaries to Article 13*, para. 5 (2017).

[87] Kaal & Dell'Erba, *supra* n. 34, at 2.

[88] *See* e.g. Holmes, *supra* n. 71, Ch. 5. A similar interpretation can be observed in domestic case law; *see* e.g. the DK: Supreme Court, SKM2010.553.HR (published 10 Sept. 2010). The Danish Supreme Court ruled that a football club's transfer proceeds compensated the club for giving up its rights under employment contracts signed with players could not be considered capital gains from the sale of property but that such proceeds should instead be considered part of the usual current income from the football club's operating activities in order to optimize the sporting and financial results, i.e. part of the usual professional business. The Supreme Court did not elaborate on its reasons but upheld the Eastern High Court's decision (DK: Eastern High Court, SKM2008.706.ØLR (published 2 Sept. 2008)) in which it was inter alia assumed that the player contract could only be prematurely terminated by mutual agreement and that a transfer of the football player could not occur without the football player's acceptance, i.e. the football players could not be considered property of the football club.

[89] For a historical analysis of the development of the income and capital aspect of the legal concept of income, *see* Holmes, *supra* n. 71, Ch. 5, Development of the Legal Concept of Taxable Income and, in particular, at 173–178. The author states that the concept is founded on the agricultural harvest cycle, i.e. land is the capital (source) that produces the harvest (income) through farming.

[90] E. Reimer, *Article 7. Business Profits*, in *Klaus Vogel on Double Taxation Conventions* 508 (4th ed., E. Reimer & A. Rust eds, Kluwer Law International 2015). *See also* Holmes, *supra* n. 71, Ch. 6 and, in particular, at 288–290, where the author concludes that, in English and New Zealand law, no infallible criterion exists to determine the distinction between trading operation and investments. Accordingly, a taxpayer's purpose or motive at the time that the asset was acquired has proven to be important although resulting in a narrow view, i.e. gains derived other than from current business operations fall outside the legal meaning of income. Contrarily, Australian Courts have adopted an extended concept of income also capturing extraordinary gains that arise from a transaction entered into with a profit-making purpose.

[91] *See* Holmes, *supra* n. 71, Ch 5 & 6. The author concludes that US jurists viewed capital gains quite differently from their English counterparts, i.e. realization of capital gains has been far more frequent and conspicuous than in England and Europe and, further, that Australian courts have adopted an extended notion of income also capturing extraordinary gains that arise from a transaction entered into with a profit-making purpose.

In summary, capital raised through the issuance of debt tokens should most likely not be considered as 'income' under domestic tax law and, therefore, not be classified for tax treaty purposes insofar as the debt tokens represent a valid and enforceable legal claim. In contrast, capital raised through issuance of utility and equity tokens should likely – in practice – be considered as 'income' or 'illusory gains' for domestic tax purposes and, therefore, be classified for tax treaty purposes in accordance with the blanket approach in which the economic attribute of a token is argued to constitute the distinctive characteristic. On this basis, it cannot be precluded that capital raised through the issuance of utility tokens in some ICOs should be classified as royalty which implies shared taxing rights according to many bilateral tax treaties. If the capital cannot be classified as royalties, capital from the issuance of utility tokens should typically be classified as business income and, therefore, only taxable in the residence state of the ICO issuer. Similarly, capital raised through the issuance of equity tokens should typically only be taxable in the residence state of the ICO issuer as such capital should likely be classified as capital gains. This is considering that selling tokens should typically not be considered part of the ICO issuer's business but instead a right to the 'source' producing income.

In the following sections, the return on investment in equity tokens and debt tokens are classified, respectively, according to the provisions of the OECD Model. As utility tokens in their 'simplest' version do not, as such, imply an accruing return on investment to the ICO investors,[92] return on investment in utility tokens will not be classified.

3.1.2 *Classification of ICO Investors' Return from Equity Tokens*

Although equity tokens generally do not grant the ICO investors an actual ownership in the ICO issuer that is similar to shares,[93] the fact that the equity tokens may grant the ICO investor voting and/or profit participating rights in the funded project or the ICO issuer naturally result in such payments being associated with dividends traditionally paid to shareholders. It follows from Article 10 (1) of the OECD Model that dividends paid by a company may be taxed in the residence state of the recipient. However, according to Article 10 (2), such dividends may also be taxed in the source state, i.e. the residence state of the dividend paying company, although such tax shall not exceed 5% if paid to parent companies owning more than 25% of the capital of the company paying the dividends (throughout a 365 day period) or 15% in all other cases – provided that the recipient is the beneficial owner.[94]

Despite the inclusive elements of ICOs in respect of potential ICO investors, in principle, allowing 'micro investors' all around the world to invest, it may be the case that one ICO investor acquires more than 25% of the issued equity tokens. Consequently, it is relevant to consider whether this ICO investor qualifies for the parent/subsidiary-privilege. In this respect, the commentaries to Article 10 (2) of the OECD Model clarify that 'capital' – as a general rule – should be understood in accordance with company law in terms of par value of all shares often shown as capital in the company's balance sheet.[95] However, it is further stated in the commentaries that, even when contributions to the company do not – strictly speaking – classify as 'capital' under company law such contributions may be regarded as 'capital' and, therefore, potentially qualify for the parent/subsidiary-privilege.[96] This is provided that, on the basis of domestic law or practice, the income derived in respect of the contribution is treated as a dividend under Article 10 of the OECD Model. Hence, if the return on investment in equity tokens should be classified as dividends pursuant to Article 10 (3) of the OECD Model, an ICO investor owning more than 25% of the capital (i.e. share capital and value of the issued tokens) may benefit from the parent/subsidiary-privilege even though equity tokens do not represent an actual ownership in the ICO issuer, which is similar to shares.[97]

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[92] However, some utility token may include a return on investment i.e. payable by the ICO issuer. If such a return is not contingent on the performance and profit of the ICO issuer, not treated as income from shares under domestic tax law of the source country, and no valid and enforceable debt claim exists, it may be classified as `other income´ under Art. 21 of the OECD Model, as discussed in s. 3.2.2.

[93] Kaal & Dell'Erba, *supra* n. 34, at 2.

[94] The term 'beneficial owner' is elaborated in *OECD Model: Commentaries to Article 10*, paras 12–12.7 (2017) and, accordingly, the term is not used in a narrow technical sense; rather, it should be understood in its context, in particular in relation to the words 'paid … to a resident' and considering the object and purposes of the OECD Model, including avoiding double taxation and the prevention of fiscal evasion and avoidance. It should be noted that, despite being subject to extensive analyses in the international tax literature, the term 'beneficial owner' is still highly debated and still not fully settled. For a thorough analysis of the term 'beneficial owner', reference may be given to A. Meindl-Ringler, *Beneficial Ownership in International Tax Law*, Series on International taxation no. 58 (Wolters Kluwer 2016). *See also* W. Haslehner, *Article 10. Dividends*, in *Klaus Vogel on Double Taxation Conventions* 816–818 (4th ed., E. Reimer & A. Rust eds, Kluwer Law International 2015) and D. G. Duff, *Beneficial Ownership: Recent Trends*, in *Beneficial Ownership: Recent Trends* 17–22 (M. Lang et al., IBFD 2013).

[95] *See OECD Model: Commentaries to Article 10*, paras 15 (a) and (b) (2017).

[96] *See OECD Model: Commentaries to Article 10*, para. 15 (d) (2017). In this respect, Haslehner notes that, if loans and other contributions should also be taken into account as a part of the capital of the company, this is inconsistent with a calculation of the company's nominal capital. The commentaries suggest considering the 'value' of such loans and contributions as capital without elaborating when these instruments should be valued although the value may considerably change. Further, the author notes that, this is also entirely inconsistent with taking the par value of shares as a premium above par value may be paid to the ICO issuer. The author concludes that taking it into account would make the calculation of the threshold highly volatile and impossible to do for a shareholder not knowing the amount of such contributions made by other shareholders. Hence, according to the author capital contributions not reflected in the nominal capital of the company should not be taken into account for defining the relevant 'capital' of a company to determine whether the 25% threshold has been met. *See* Haslehner, *supra* n. 92, at 822.

[97] Kaal & Dell'Erba, *supra* n. 34, at 2.

The concept of 'dividends' is defined in Article 10 (3) of the OECD Model as[98]:

> *income from shares, "jouissance" shares or "jouissance" rights, mining shares, founders' shares or other rights, not being debt-claims, participating in profits, as well as income from other corporate rights which is subjected to the same taxation treatment as income from shares by the laws of the State of which the company making the distribution is a resident.*

Based on the general principle for interpretation, the definition shall be interpreted in accordance with the ordinary meaning given to the terms in the context and in light of the object and purpose of the tax treaty. There may also be recourse regarding the preparatory work of the tax treaty and the circumstances of its conclusion.[99] Hence, reference to domestic tax law, if not explicitly made, should only be made if a term cannot be sufficiently determined on basis of the tax treaty itself or in its co-text, based on a literal and autonomous interpretation as well as a purposive and contextual interpretation of the strict and broader context.[100]

Accordingly, following a literal interpretation of the definition of dividend, the definition is not exhaustive but instead consists of three parts, i.e. income from:

(1) shares, jouissance shares or jouissance rights, mining shares and founders' shares,
(2) other rights not being debt-claims, participating in profits, and
(3) other corporate rights to the extent that such income is subjected to the same taxation treatment as income from shares by the laws of the source state, i.e. the residence state of the dividend paying company.[101]

In these three parts, the distinctive element of the definition is argued to be 'corporate rights' under the third part as this seems to refer back to the previous parts of the definition. Moreover, the second part seems to specify that the examples of the first part must be considered (corporate) rights participating in profits – without being debt-claims – if the return from such financial instruments should be classified as dividends according to Article 10 of the OECD Model.[102] Hence, if the return on investment in equity tokens should be classified as dividends, the equity tokens must be considered corporate rights that *either* imply participation in the ICO issuer's current profits without being debt-claims *or* are subject to the same tax treatment as income from shares according to the laws of the residence state of the ICO issuer.

Despite 'corporate rights' being a crucial term, no further guidance is provided in the definition, therefore, an autonomous as well as a purposive and contextual interpretation of the context is required.[103] Based on the commentaries to the OECD Model, the relevant criteria is whether the investor *'effectively shares the risks run by the company*, i.e. *when repayment depends largely on the success or otherwise of the enterprise's business.'*.[104] According to the prevailing doctrine in the international tax literature, this has been interpreted in the sense that the ICO investor must share 'the entrepreneurial risk' of the ICO issuer if the return on investment should be classified as dividends.[105] Although this analysis should be based on a case-by-case assessment of all of the circumstances, a list of distinctive characteristics indicating that an investor shares the entrepreneurial risk of the issuer is provided in the commentaries to the OECD Model:[106]

Notes

[98] *See* in general, regarding the interpretation of this article, e.g. Bundgaard, *supra* n. 14, at 138–143; Bärsch, *supra* n. 36, at 98–104; Lopes Dias, *supra* n. 51, at 111–126; M. Helminen, *The International Tax Law Concept of Dividend*, 36 Series Int'l Tax'n 174–179 (Wolter Kluwer Law and Business 2010). Haslehner, *supra* n. 92, at 834 et seq.; E. Eberhartinger & M. Six, *Taxation of Cross-Border Hybrid Finance: A Legal Analysis*, 37(1) Intertax 8 & 9 (2009).

[99] The interpretation of treaties in general – and, therefore, also tax treaties – is undertaken in accordance with the Vienna Convention on the Law of Treaties (23 May 1969)). It should, however, be noted that the importance of the convention has been subject to discussion in the literature: *see* e.g. F. Engelen, *Interpretation of Tax Treaties Under International Law*, Doctoral Series Vol. 7 425–516 (IBFD 2004); U. Linderfalk & M. Hilling, *The Use of OECD Commentaries as Interpretative Aids – The Static/Ambulatory-Approaches Debate Considered from the Perspective of International Law*, 2015(1) Nordic Tax J. 36–40 (2015); and P. J. Wattel & O. Marres, *The Legal Status of the OECD Commentary and Static or Ambulatory Interpretation of Tax Treaties*, 43(7/8) Eur. Tax'n 225–229 (2003). According to Art. 31 and 32 Vienna Convention on the Law of Treaties, a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in the context and in light of the object and purpose of the treaty; further recourse may be had to the preparatory work of the treaty and the circumstances of its conclusion.

[100] There is ongoing discussion regarding which state's domestic law Art. 3(2) OECD Model refers to, i.e. the domicile state, the source state, or the state applying the OECD Model. However, as the analysis in this paper is of a general nature and conducted according to the OECD Mode – although examples from domestic law are provided to a limited extent for illustrative purposes – it is not considered necessary to engage in this discussion. Instead, *see* e.g. Engelen, *supra* n. 97, at 473 et seq. and, in the context of hybrid financial instruments, *see* e.g. Bärsch, *supra* n. 36, at 97 & 98.

[101] Bundgaard, *supra* n. 14, at 140; Bärsch, *supra* n. 36, at 98; Helminen, *supra* n. 96, at 63 and Haslehner, *supra* n. 92, at 834. It has also been proposed to group the definition into two classes (combining the first and the second group); *see* e.g. M. Six, *Hybrid Finance and Double Taxation Treaties*, 63(1) Bull. Int'l Tax'n 22 et seq. (2009).

[102] Bundgaard, *supra* n. 14, at 140; Bärsch, *supra* n. 36, at 98 & 99; Lopes Dias, *supra* n. 51, at 115 & 116 and Haslehner, *supra* n. 92, at 834.

[103] Bundgaard, *supra* n. 14, at 142; Bärsch, *supra* n. 36, at 99. and Haslehner, *supra* n. 92, at 839; Helminen, *supra* n. 96, at 64 & 175.

[104] *See OECD Model: Commentaries to Article 10*, para. 25 (2017).

[105] Bärsch, *supra* n. 36, at 100; Bundgaard, *supra* n. 14, at 146. Others commentators argue that 'corporate rights' mean such a membership right comparable to an ordinary shareholder of a company, i.e. a membership-like relation requires a basis in domestic company law; *see* e.g. Helminen, *supra* n. 96, at 176, stating that *'Generally, income qualifies as a dividend only if it is received by a shareholder because of the recipient's position as a shareholder or because of a comparable position in a company.'* On the other side of the spectrum, some commentators seem to argue that the term 'corporate rights' should be understood more generally such that it solely excludes financial instruments when a 'company' is not the capital borrower but is, instead, a partnership; *see* e.g. H. Pijl, *Interest from Hybrid Debts in Tax Treaties*, 65(9) Bull. Int'l Tax'n (2011).

[106] *See OECD Model: Commentaries to Article 10*, para. 25 (2017).

- The invested capital heavily outweighs any other contribution to the issuer's capital (or was taken out to replace a substantial proportion of capital that has been lost) and is substantially unmatched by redeemable assets.
- The investor will share in any profits of the issuer. In this respect, it should be noted that whether 'any profit' refers to current profit and/or liquidation proceeds, i.e. hidden reserves, has been subject to discussion in the international tax literature. The majority of commentators argue that a participation in the current profits is not sufficient and should also not be necessary if the participation in the liquidation proceeds imparts a sufficient participation in the entrepreneurial risk.[107] However, as long as an investor participates in both the current profits and any potential liquidation proceeds, such instruments undoubtedly share the entrepreneurial risk.[108]
- The repayment of the principal amount is subordinated to claims of other creditors or to the payment of dividends, i.e. the investor has to accept the risk of losing all of the capital invested as the investor only holds a right in the company rather than against the company.[109]
- The return on investment depends on the profits of the issuer.
- The contractual agreement contains no fixed provisions for the repayment of the principal amount by a definite date.

When comparing the list of examples provided in the commentaries with the ideal-typical characteristics of pure equity discussed above in section 3.1.1., it seems apparent that non-financial rights (e.g. voting rights) should not be considered as decisive for the definition of whether the instrument implies 'corporate rights' within the meaning of Article 10 of the OECD Model. This is perhaps because such rights have no direct impact on the entrepreneurial risk,[110] although it may be argued that such non-financial rights provide (some) control over the entrepreneurial risk.

In addition to the requirement of corporate rights, the classification of return on investment as dividends requires that these rights *either* imply participation in the issuer's profits without being either debt-claims (second part of the definition) *or* are subject to the same tax treatment as income from shares by the laws of the issuers residence state, e.g. when loan capital is reclassified based on the argument that an independent third party in a similar situation would have refused to make loan capital available (third part of the definition).[111] It is argued that the reference to domestic law should likely be understood as a dynamic reference to the current domestic law, i.e. not the law in force when a specific tax treaty was agreed.[112] Furthermore, as the determination of '*same taxation treatment as income from shares*' may be challenging according to domestic tax law, reference to civil law and company law may be necessary which should still be in accordance with the renvoi-method in Article 3 (2) of the OECD Model.[113]

Furthermore, it should be noted that only income paid by a 'company' according to Article 3 (1) (a) of the OECD Model, i.e. '*any body corporate or any entity that is treated as a body corporate for tax purposes*', may be classified as dividends under Article 10 of the OECD Model. Naturally, this will require a case-by-case assessment of the ICO issuer in each specific ICO, however, in practice, some ICO issuers should be considered as a 'company' for tax treaty purposes.

Finally, the term 'income' in respect of dividends covers benefits in money or money's worth and, therefore, distribution of cryptocurrencies may also be classified as dividends – provided that the conditions that are contained in the definition of a dividend are fulfilled.[114]

Consequently, although highly dependent on the specific rights and obligations associated to equity tokens, it cannot be precluded that return from investments in these tokens may be classified as dividends under Article 10 of the

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[107] Vogel interpreted 'corporate right' to imply a right to benefit from the potential increase in value of the enterprise as remuneration for sharing the business risk which also comprises the potential loss of the invested capital in the image of a regular shareholder, i.e. both a right to participate in the current profits and in the liquidation proceeds; *see* K. Vogel, *Klaus Vogel on Double Taxation Conventions* 651 (Kluwer 1997). This interpretation is widely cited; *see* e.g. Bundgaard, *supra* n. 14, at 149; Lopes Dias, *supra* n. 51, at 121 & 122; Helminen, *supra* n. 96, at 839. The authors argue that limitation of the participation in the liquidation proceeds to a certain percentage is accepted whereas, if the investor is completely barred from claiming liquidation proceeds, the return on investment cannot be classified as dividends according to Art. 10 (3) of the OECD Model. In contrast, *see* Bärsch, *supra* n. 36, at 100. The author argues that, it could be a too narrow interpretation of 'any profit' if participation in current profits is not sufficient and if participation in current profits should not be necessary for the fulfillment of the equity test.

[108] Bundgaard, *supra* n. 14, at 149 & 150. The author states, with respect to the corporate right-test, that '*The vital fault of this test is that is far from clear when an instrument can be said to be sufficiently participating in the profits and liquidation proceeds in order to render dividend treatment under the treaty. Moreover, it appears that the second limb* (i.e. the holder of a corporate right must be entitled to participate in the liquidation proceeds) *of the corporate rights test is solely based on its inherent logic*'. Somewhat similar criticism is given by Lopes Dias; *see* Lopes Dias, *supra* n. 51, at 127.

[109] Lopes Dias, *supra* n. 51, at 147 and Haslehner, *supra* n. 92, at 836.

[110] Bärsch, *supra* n. 36, at 102 and Bundgaard, *supra* n. 14, at 141.

[111] *See* Bundgaard, *supra* n. 14, at 143 and Haslehner, *supra* n. 92, at 840.

[112] Bärsch, *supra* n. 36, at 104; Bundgaard, *supra* n. 14, at 142; Haslehner, *supra* n. 92, at 841.

[113] Bundgaard, *supra* n. 14, at 142.

[114] *See OECD Model: Commentaries to Article 10*, para. 28 (2017). This paragraph cites examples of other benefits in money or money's worth to be treated as dividends: bonus shares (stock dividends), bonuses, hidden distributions of profits (constructive dividends). It is generally accepted that none of the cryptocurrencies known today should be regarded as money or an official currency; *see* e.g. Bal, *supra* n. 12, at 50–53 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 623–625.

OECD Model insofar as the principal value should not be classified as a debt-claim. The arguments are: *firstly*, that the capital typically is substantially unmatched by redeemable assets since the ICO is conducted at a very early stage of the project thus making, in general, the redeemable assets minimal; *secondly*, that the ICO investor's return on investment is – to a varying extent – dependent on the profits of the ICO issuer; *thirdly*, that repayment of the principal amount is subordinated to claims of creditors as the ICO investor in equity tokens – in the case of bankruptcy or termination of the ICO issuer's business or the specific project funded by the ICO – typically have no liquidity preference or simply do not have the right to repayment of the principal amount at all, implying that the ICO investor typically loses everything it has invested; and, *fourthly*, that income derived from 'rights' typically form part of a 'traditional' 'corporate right' although they have been separated therefrom. Such separated rights have previously been argued to fall within the definition of dividends in Article 10 of the OECD Model as the classification of a payment as 'dividends' depends on the rights held by the beneficial owner of the income in relation to the company making the payment (as opposed to relying exclusively on the point of view of the company making the payment in response to an existing but separately owned 'corporate right') and hence this approach seems more consistent.[115]

However, although it cannot be precluded that the return from specific equity tokens should be classified as dividends under Article 10 of the OECD Model, it is argued in this article that the return on investment in equity tokens, in practice, should not be classified as dividend. The arguments for this conclusion are: *firstly.* if applying a stricter interpretation of 'corporate right' (as supported by the majority of legal scholars), return on investments paid to ICO investors in equity tokens that are not entitled to liquidation proceeds – which may be the most common situation in practice as most ICO investors may not have a right to repayment of the principal amount at all – under no circumstances may be classified as dividends[116]; *secondly*, that the return on investment in equity tokens is typically not dependent on 'any profit' of the ICO issuer but instead, e.g. dependent on the revenue of a specific product and not on other sources of revenue of the ICO issuer;[117] *thirdly*, that it has previously been concluded in the international tax literature that return from equity tokens should most likely *not* be subject to the same tax treatment as income from shares under the laws of the residence state of the ICO issuer in the analysed countries.[118]

In the arguably most common situation that a contingent return on investment – not treated in the same way as return on shares for domestic purposes in the source country – cannot be classified as dividends, it may be classified as `other income´ under Article 21 of the OECD Model.[118] This is valid even though it has previously been argued in the international tax literature that the actual scope of Article 21 (1) of the OECD Model is very narrow in respect of more `traditional´ hybrid financial instruments.[120] According to Article 21 (1) of the OECD Model, any income not dealt with in any other articles of the OECD Model shall be taxable only in the state of residence of the recipient, i.e. the ICO investor, wherever the income arises, i.e. the rule has a worldwide scope also covering income from third states.[121] However, it should be noted that Article 21 (3) of the UN Model (2017) – which is especially aimed towards financial instruments – provides that `other income´ *arising* in the source state (i.e. paid by one of its residents),[122] may also be unrestrictedly taxed at source. Hence, only income from third states falls under Article 21 (1) in the UN Model (2017).[123]

3.1.3 *Classification of ICO Investors' Return from Debt Tokens*

Return from debt tokens (e.g. obligation to repay capital raised by the ICO issuer and periodical return on investment) naturally results in association with traditional interest payments paid to corporate bond holders and other creditors. According to Article 11 (1) of the OECD

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[115] Haslehner, *supra* n. 92, at 837. The author further points out that this interpretation may result in compliance issues of the company in respect of whether to withhold dividend tax on the payment.

[116] Kaal & Dell'Erba, *supra* n. 34, at 17 & 18. *See* e.g. Blockshipping's Container Crypto Coins-tokens as a practical example of a security token for which return on investment includes a profit-sharing element, but the ICO investors are not entitled to liquidation proceeds. GSCP, The GSCP ICO White Paper by Blockshipping (May 2018), https://www.blockshipping.io/wp-content/uploads/2018/02/Blockshipping_GSCP_ICO_White_Paper_public.pdf (accessed 7 Apr. 2020).

[117] *See* e.g. Blockshipping's Container Crypto Coins-tokens as a practical example of a security token for which return on investment is dependent only on transactions fees for using the Global Shared Container platform. *See* GSCP, *supra* n. 114.

[118] Kjærsgaard & Arfwidsson, *supra* n. 12, at 628–631.

[118] Kjærsgaard & Arfwidsson, *supra* n. 12, at 628–631.

[120] Bundgaard, *supra* n. 14, at 154.

[121] *See OECD Model: Commentaries to Article 21*, paras 1 and 3 (2017).

[122] *Ibid.*, para. 9.

[123] Furthermore, the Commentary on the UN Model provides for a possible anti-abuse provision to be freely added, i.e. income from 'innovative' or 'non-traditional' instruments may also be taxed at source when the payment exceeds the arm's length amount; *see UN Model: Commentaries to Article 21*, para. 7 (2017) and similar *OECD Model: Commentaries to Article 21*, para. 7 (2017), *see also* Lopes Dias, *supra* n. 51, at 135.

Model, interest payments may be taxed in the recipient's state of residence. However, pursuant to Article 11 (2), interest payments may also be taxed in the source state (i.e. the residence state of the ICO issuer) although such tax shall not exceed 10% if the recipient is the beneficial owner of the gross amount of the interest payment and if the interest payment does not exceed an arm's length interest payment.[124]

The term 'interest' is defined in Article 11 (3) of the OECD Model as:

> *income from debt-claims of every kind, whether or not secured by mortgage and whether or not carrying a right to participate in the debtor's profits, and in particular, income from government securities and income from bonds or debentures, including premiums and prizes attaching to such securities, bonds or debentures.*

In principle, this definition is exhaustive and contrary to the definition of dividend, no reference is made to domestic law thus the definition should only be interpreted autonomously.[125] Hence, reference to domestic law should - according to the general principles on interpretation and Article 3(2) of the OECD Model - only be made after determining whether the term in question is defined either in the tax treaty itself or in its co-text, based on a literal and autonomous interpretation as well as a purposive and contextual interpretation of the strict and broader context.[126]

Based on a literal interpretation of the definition, the decisive part is argued to be the meaning of 'income from debt-claims of every kind'.[127] Moreover, government securities, bonds, and debentures should solely be considered as examples that are explicitly mentioned due to their practical importance, however, without influencing the interest definition as such.[128]

The term 'debt-claims' is not further defined under the OECD Model.[129] Therefore, an autonomous as well as a purposive and contextual interpretation of the context is required. In this respect, it has been argued in the international tax literature that debt-claims should be understood in their broadest sense.[130] However, it is a requirement that there is a legal obligation (valid and – economically – enforceable[131]) between the debtor and a creditor to repay the capital and the payment for lending the capital,[132] i.e. payments made under non-traditional financial instruments when there is no underlying debt cannot be considered interest.[133] Consequently, the prevailing doctrine is that a contingency can never exist in respect of the repayment right in terms of the face value of the amount invested by the lender.[134] Hence, the ICO investor in debt tokens cannot share the *entrepreneurial risk* run by the ICO issuer of debt tokens, i.e. the ICO investor is not required to accept the risk of losing all of the capital invested if the return on investment should be classified as interest under Article 11 of the OECD Model. Notably, the *credit risk* of the ICO investor not being able to enforce the claim because of the ICO issuer's bankruptcy obviously does not affect the classification of the return on investment in this respect.[135]

Further, it is stated in the commentaries of the OECD Model that all of the amount that the ICO issuer pays over and above that paid by the ICO investor (i.e. interest accruing plus any premium paid at the redemption or at

Notes

[124] The term 'beneficial owner' is elaborated in *OECD Model: Commentaries to Article 11*, paras 9.1 & 10.1–10.4 (2017) and, accordingly, the term is not used in a narrow technical sense, rather, it should be understood in its context, in particular in relation to the words 'paid … to a resident' and in light of the object and purposes of the OECD Model, including avoiding double taxation and the prevention of fiscal evasion and avoidance. It should be noted that, despite being subject to extensive analyses in the international tax literature, the term 'beneficial owner' is still highly debated and still not fully settled. For a thorough analysis of the term 'beneficial owner', reference may be had to Meindl-Ringler, *supra* n. 92. *See also* Haslehner, *supra* n. 56, at 910–914 and Duff, *supra* n. 92, at 17–22.

[125] *See OECD Model: Commentaries to Article 11*, para. 21 (2017) and Bundgaard, *supra* n. 14, at 144; Six *supra* n. 99, at 22 et seq.; Lopes Dias, *supra* n. 51; Eberhartinger & Six, *supra* n. 96, at 9.

[126] *Supra* n. 97 and n. 98.

[127] Bundgaard, *supra* n. 14, at 150; Bärsch, *supra* n. 36, at 104 and Haslehner, *supra* n. 56, at 923.

[128] *See OECD Model: Commentaries to Article 11*, para. 18 (2017).

[129] Bundgaard, *supra* n. 14, at 144; Bärsch, *supra* n. 36, at 105 and Six *supra* n. 99, at 22 et seq.

[130] Bundgaard, *supra* n. 14, at 144 and Haslehner, *supra* n. 56, at 923.

[131] *See* Bundgaard, *supra* n. 14, at150–153 and Fehér, *Conflicts of Qualification and Hybrid Financial Instruments*, in *Conflicts of Qualification in Tax Treaty Law* 242 et seq. (M. Lang, E. Burgstaller & K. Haslinger eds, Linde 2008). Fehér argued that »claim« in the context of the definition of interest in Art. 11 (3) OECD Model should (1) involve a legally enforceable claim, (2) be genuine from a legal as well as an economic perspective and (3) the economic risks should reflect those of a debt claim rather than those of equity. Further, Fehér argues that neither do the amount and the calculation of the return on investment have to reflect a 'classic' debt nor is it necessary that the claim is secured or ranked before the claims of others as long as this is reflected in the interest. According to Gaspar Lopes Dias, it can be logically ascertained a legal debt-claim has no substance when there is no actual economic possibility of repayment, i.e. the borrower does not have the capital *and* the profits are not sufficient *and* there is no reliable prospect of gaining either in a foreseeable future, *see* Lopes Dias, *supra* n. 51, at 133. Haslehner suggest to apply the arm's length test, i.e. any amounts that would not have been offered by an unconnected lender would typically be assigned to existing corporate rights, *see* Haslehner, *supra* n. 92, at 841.

[132] Bärsch, *supra* n. 36, at 105; Bundgaard, *supra* n. 14, at 151 and Haslehner, *supra* n. 56, at 923.

[133] *See OECD Model: Commentaries to Article 11*, para. 21.1 (2017), where it is stated that, e.g. interest swaps, unless a loan is considered to exist under a 'substance over form' rule, an 'abuse of right' principle, or any similar doctrine.

[134] Bärsch, *supra* n. 36, at 106. The author argues that the debt-test requires non-contingent entitlement to the repayment of the face value of hybrid financial instruments, but not necessarily of the principal amount, which becomes relevant in case instruments issued at premium. *See also* Lopes Dias, *supra* n. 51, at 123.

[135] Helminen, *supra* n. 96, at 178.

issue) could be classified as interest.[136] In other words, interest encompasses all of the remunerations for making capital available to the ICO issuer.[137] However, as dividends are also remuneration for making capital available, it may sometimes be difficult to distinguish between dividends and interest. Therefore, in order to avoid any possibility of overlap, it is explicitly stated that the term 'interest' as used in Article 11 of the OECD Model does not include items of income that are addressed under Article 10 of the OECD Model, i.e. it should initially be analysed whether return on investment on the token in question falls under the scope of Article 10 of the OECD Model as this would lead to that return not being covered by Article 11 of the OECD Model.[138] However, notwithstanding the wording of the commentaries, the explicit exclusion of debt-claims in the definition of dividends under Article 10 of the OECD Model implies that it – correctly – has been previously argued in the international tax literature that, in principle, it seems necessary to initially ascertain whether the financial instrument comprises a debt-claim. If so, the 'debt-claim-test' may be regarded as the key tie-breaking factor for the distinction between dividends and interest[139] – when adhering to the prevailing doctrine that 'debt-claims' and 'corporate rights' are mutually exclusive.[140]

Finally, it should be noted that the term 'income' in relation to interest is argued to cover funds in money or money's worth as well – especially when the chosen funds follow from agreement or customs – and distribution of cryptocurrencies, therefore, may also be classified as interest provided that a valid and enforceable debt-claim exists.[141]

Consequently, return from investments in debt tokens may be classified as interest under Article 11 of the OECD Model insofar as the ICO investor has a valid and enforceable right to repay the principal value lent to the ICO issuer, and the ICO investor does not share the entrepreneurial risk with the ICO issuer. However, as ICOs are characterized by being conducted at a very early stage of a project, it should be expected that the project generates no income to meet an ongoing obligation for interest payments. A solution to prevent such liquidity issues could be to make the return on investment more equity-flavoured, e.g. dependent on the performance and profitability of the project without the repayment of the underlying dept being at the discretion of the ICO issuer. Such return on investment may be classified as interest under Article 11 of the OECD Model as such hybrid financing is explicitly covered by the definition of interest in Article 11(3) – provided that a valid and enforceable debt-claim exits *and* also that the ICO investor does not participate in the liquidation proceeds.[142] Similarly, a return on investment in debt tokens should normally be classified as interest even if the ICO investor holds the right to convert the debt token into shares – until such conversion has occurred.[143] Further, a return on investments in other equity-flavoured debt instruments, e.g. 'perpetuals' or 'super maturity bonds', has previously been argued to be within the scope of interests under Article 11 of the OECD Model unless other equity characteristics are involved.[144]

In the event that the return on investment cannot be classified as interest under Article 11 of the OECD Model (or dividends under Article 10 of the OECD Model), it may be classified as `other income´ under Article 21 of the OECD Model[145] as also discussed above in section 3.1.2. in respect of equity tokens.

3.1.4 *Classification of ICO Investors' Capital Gains from the Sale of Tokens*

Depending on market demand and supply of equity tokens, debt tokens, and utility tokens, the tokens may increase in value which may earn the ICO investors a return on the investment upon sale of the token.

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[136] *See* OECD Model: Commentaries to Art. 11, para. 20 (2017).

[137] Bundgaard, *supra* n. 14, at 145; Bärsch, *supra* n. 36, at 105; Lopes Dias, *supra* n. 51, at 122; Haslehner, *supra* n. 56, at 924 and Six *supra* n. 99, at 22 et seq.

[138] *See OECD Model: Commentaries to Article 11*, para. 19 (2017).

[139] Lopes Dias, *supra* n. 51, at 129 and Bundgaard, *supra* n. 14, at 153.

[140] Lopes Dias, *supra* n. 51, at 128; Bundgaard, *supra* n. 14, at 150 and Haslehner, *supra* n. 56, at 927. S.E. Bärsch, *The Definitions of Dividends and Interest Contained in the OECD Model, Actual Tax Treaties, and the German Model*, 42(6/7) Intertax 437 (2014); Eberhartinger & Six, *supra* n. 96, at 10 and Six *supra* n. 99, pat 22 et seq.

[141] *See* para. 5 of the OECD Commentary to Art. 11, *see* however Haslehner, *supra* n. 56, at 904 & 905 in respect of accrued interest and non-monetary funds. Further, it is generally accepted that none of the cryptocurrencies known today should be regarded money or an official currency, *See* e.g. Bal, *supra* n. 12, at 50–53 and Kjærsgaard & Arfwidsson, *supra* n. 12, at 623–625.

[142] *See OECD Model: Commentaries to Article 11*, para. 18 (2017). Bundgaard, *supra* n. 14, at 366 & 367. The author contends that, according to the Corporate Rights Test, an instrument with a profit-participating right *as well as* a right to participate in the liquidation proceeds of the issuer does not yield income from debt-claims in terms of Art. 11 (3) OECD Model because the terms 'income from corporate rights' and 'income from debt-claims' with respect to the OECD Model are mutually exclusive.

[143] *See OECD Model: Commentaries to Article 11*, para. 19 (2017).

[144] Bundgaard, *supra* n. 14, at 302. The author argues that the term 'debt claims' should be understood in its broadest sense and that the perpetual instrument does, in fact, represent a right to redemption for the holder even though the actual redemption may be postponed or never take place.

[145] Notably, Art. 7 OECD Model can be ignored if the ICO investor does not conduct business through a permanent establishment in the residence state of the ICO issuer or the interest is not effectively connected to this permanent establishment; *see* e.g. Bundgaard, *supra* n. 14, at 138; Bärsch, *supra* n. 36, at 94 and Eberhartinger & Six, *supra* n. 96, at 7.

The return on investment from the sale of the full right and ownership of the tokens and their incorporated economic attribute should typically be classified as capital gains according to Article 13 (5) of the OECD Model and, accordingly, only the residence state of the selling ICO investor can tax the return on investment – assuming that the capital gains may not be attributed to a permanent establishment of the selling ICO investor. However, it may be argued that the facts and circumstances of the ICO investor selling tokens may imply that the return on investment from the sale of tokens should be classified as business income under Article 7 of the OECD Model if the tokens are not considered to be the source for income but, instead, the income itself obtained through the continuous sale of tokens with a profit-making purpose or motive as part of the current business operations. Stated differently, return on investment from the sale of tokens should be classified as business income under Article 7 of the OECD Model if trading with tokens is conducted in the same manner as a plantation selling apple trees instead of apples from the apple trees – as further discussed above in section 3.1.1.

Nevertheless, the practical outcome (of classification as business income under Article 7 or capital gains under Article 13 (5) of the OECD Model) is similar – i.e. only the residence state of the selling ICO investor may tax the return on investment in the absence of a permanent establishment of the selling ICO investor to which the return on investment may be attributed.

4 Conclusion

Despite being in its infancy, blockchain technology and its five main principles of the fundamental architecture (constant distribution of data, peer-to-peer transmission, transparency, irreversibility, and computational logic) is argued to have the potential to create economic value to businesses beyond its common association with cryptocurrencies. However, in practice, concerns related to data protection and confidentiality tend to imply that companies and institutions prefer permissioned and private blockchains that allow for greater control and privacy but, in reality, are more comparable to a traditional shared database. Nonetheless, one of the most common and debated use cases of blockchain technology up until now is ICOs which is a phenomenon that, through the main principles of blockchain technology, enables a cost-efficient and inclusive means of raising capital without the need for intermediaries. However, this new method of raising capital imposes a number of legal uncertainties, inter alia concerning how the taxing right to payments related to ICOs should be allocated for tax treaty purposes.

Based on the analysis conducted in this article, the capital raised through the issuance of debt tokens should generally not be considered as 'income' under domestic tax law and, therefore, not relevant for tax treaty allocation purposes insofar as they represent a valid and enforceable debt-claim. On the contrary, capital raised through issuance of other tokens should generally be regarded as 'income' or 'illusory gains' for domestic tax purposes and hence may be relevant for tax treaty allocation purposes if such capital is considered taxable in the contracting states. In terms of tax treaty classification, payments received from the issuance of utility tokens in ICOs should be classified as royalty under Article 12 of the OECD Model only if the utility token represents a prepaid right to use intangibles covered by the definition of royalties in Article 12 (2) of the OECD Model, implying shared taxing right according to many bilateral tax treaties. If the conditions for classification as royalties is not fulfilled, such capital should be classified as business income under Article 7 of the OECD Model and hence only be taxable in the residence state of the ICO issuer in the absence of a permanent establishment in the residence state of the ICO investor. Similarly, capital raised through the issuance of equity tokens should only be taxable in the residence state of the ICO issuer as such capital should likely be classified as capital gains under Article 13 (5) of the OECD Model provided that the ICO issuer does not conduct professional business with the sale of tokens and similar assets.

Consequently, if comparing the allocation of taxing rights to capital raised through the issuance of 'traditional' securities and hybrid financial instruments – generally assumed to be classified as either debt or equity – to the allocation of taxing rights to capital raised through the issuance of tokens, the former implies exclusive right to tax for the tax residence state of the issuer, whereas the latter in some situations may imply a shared taxing right between the tax residence state of the ICO issuer and the ICO investor.

From the perspective of the ICO investor, the return on investment in equity tokens should typically not, in practice – despite common characteristics – be classified as dividends under Article 10 of the OECD Model as 'share in any profit' under the 'corporate right test' arguably refers to the overall profit of the ICO issuer and not inter alia revenue or profit from the project specifically funded by the ICO; further, because ICO investors will typically not be entitled to liquidation proceeds; and, finally, because the return on investment should not typically be subject to the same taxation as income from shares under the domestic laws of the ICO issuer. However, theoretically, it cannot be precluded that return on specific equity tokens may be classified as dividend under Article 10 of the OECD Model implying shared taxing rights between the resident and source state.

Insofar as a return on investment in tokens does not constitute dividend according to Article 10 of the OECD Model, it may be classified as interest under Article 11 of the OECD Model if the ICO issuer has a valid and enforceable obligation to repay the face value of the capital, i.e. the ICO investor does not share the entrepreneurial risk with the ICO issuer. However, as ICOs are characterized by being conducted at a very early stage of a project, a repayment obligation and ongoing fixed interest payment may not be the preferred means of raising capital for the ICO issuer compared to more equity-flavoured financial instruments. Yet, even return

on investments in these instruments, e.g. performance or profitability-dependent return or return on investment in convertible debt instruments, may be classified as interest under Article 11 of the OECD Model – provided that a valid and enforceable debt-claim exists. In the event that the return on investment should be classified as interest, Article 11 of the OECD Model provides for shared taxing rights between the residence state and the source state.

Consequently, based on the analysis conducted in this article, it seems likely that – opposed to a return on investments in more a 'traditional' hybrid financial instrument – the return on investments in equity tokens and debt tokens, in practice, should often be classified as `other income´ under Article 21 of the OECD Model as such tokens typically do not grant the ICO investor a right to share in any profit and liquidation proceeds nor will they always impose a valid and enforceable repayment obligation on the ICO issuer. The practical consequence is that source countries, i.e. the ICO issuers' countries of tax residence, to a greater extent, will be precluded from taxing the return paid to foreign ICO investors compared with return paid on more 'traditional' hybrid financial instruments. Hence, the costs and time spent on receiving tax relief from source taxation may be avoided if investing in tokens. Further, tax relief in the ICO issuers' countries of tax residence may be subject to complex domestic regulation such as the net principle which, in addition to the challenges of allocating costs, de facto may imply double taxation if source taxation is imposed as gross taxation.

On this basis, it is argued that the classification of return on investments in tokens may be somewhat less complicated than the classification of return on investments in more 'traditional' hybrid financial instruments. The argument is that the challenges of classifying return on investment in tokens are – in practice – allegedly limited to the demarcation of interest under Article 11 of the OECD Model as it is argued that return on investment in tokens – if not classified as interest under Article 11 of the OECD Model – generally should be classified as `other income´ under Article 21 of the OECD Model. Conversely, the challenges of classifying a return on investment in more 'traditional' hybrid financial instruments is typically the delineation between dividends under Article 10 and interest under Article 11 of the OECD Model and (less commonly) capital gains and `other income´ under Article 13 and Article 21 of the OECD Model, respectively.

Finally, it is likely that only the residence state of the ICO investors will have the right to tax gains from the sale of tokens to other investors as the transfer of full rights and ownership should likely be classified as capital gains according to Article 13 (5) of the OECD Model.

In conclusion, the overall research question presented in section 1 of this article; how to allocate the taxing right to payments in ICOs and the subsequent return on investment according to the OECD Model, is answered as summarized in table 1 while assuming that the payments are not attributable to a permanent establishment.

Table 1 Summary of the Findings on How to Allocate the Taxing Right to Payments in ICOs and the Subsequent Return on Investment According to the OECD Model

	Equity Tokens	**Debt Tokens**	**Utility Tokens**
ICO Issuer	Capital gains (Article 13 (5)) Modifications: if part of professional and commercial business (Article 7) *= Tax residence state of the ICO issuer has exclusive right to tax*	If valid and enforceable obligation to pay back, no 'income' has been realized	Business income (Article 7) Modifications: If right to use certain intangibles (Article 12) *= Tax residence state of the ICO issuer has exclusive right to tax unless royalty which implies shared right to tax under many bilateral tax treaties*
ICO Investor	Other income (Article 21) Capital gains (Article 13 (5)) when sold Modifications: if part of professional and commercial business (Article 7) *= Tax residence state of the ICO investor has exclusive right to tax*	Interest (Article 11) vs. other income (Article 21) Capital gains (Article 13 (5)) when sold Modifications: if part of professional and commercial business (Article 7) *= Tax residence state of the ICO investor has exclusive right to tax unless interests which implies shared right to tax*	Capital gains (Article 13 (5)) when sold Modifications: if part of professional and commercial business (Article 7) *= Tax residence state of the ICO investor has exclusive right to tax*

5 Wider perspectives and considerations de lege ferenda

The practical significance of the OECD Model and its method of classification and assignment of source implies that a clear delineation between the different categories of income is of substantial importance in today's international tax regime. Yet, it is argued in this article that this current distinction is ambiguous and that it comes with costs due to the complexity, uncertainty, and opportunity for international tax arbitrage. These challenges and their associated costs have previously been discussed and criticized in the international tax literature on more 'traditional' hybrid financial instruments.[146] However, although the challenges may be considered as simpler compared to other hybrid financial instruments, it is argued that, due to the specific facts and circumstances of ICOs, some of the challenges and associated costs have even more negative effects in the context of ICOs. The exacerbated negative effects relate to the ever-evolving transformation of the financial markets, which has previously been described in terms of the changing role of investment (i.e. from privately and closely held corporations to portfolio investments) and the changing structure of intermediation (i.e. from commercial banks to institutional investors such as pension funds).[147] However, disintermediation being one of the main principles of blockchain technology is argued to add a new chapter to the transformation of the financial markets. In other words, the lack of professional intermediaries combined with the borderless nature as well as cost-effective and inclusive features of blockchain technology – as typically applied in ICOs – imply that micro-investors all around the world can participate directly in ICOs. Yet, such ICO investors may not possess or even be aware of the necessary knowledge within the field of international tax law to comply with the complex rules concerning the classification of payments in ICOs. Furthermore, the fact that there is no intermediary to perform this analysis and to split the associated costs between multiple ICO investors also imply that each ICO investor may have to bear the financial costs of obtaining legal advice from international tax specialists in order to be compliant for tax purposes.

Another consequence of the disintermediation and borderless nature of blockchain technology is that start-ups issuing cryptocurrencies through an ICO – depending on the classification of the capital – can be exposed to source taxation globally and hence become global multinationals for tax purposes even before they have a commercialized product or service. Such start-ups may – similar to micro-investors – be unaware of the potential tax consequences, and the complexity may require professional tax expertise at a level that they do not possess or have the resources to acquire at that point of the business' life-cycle.

Arguably, two scenarios seem plausible. The ICO investors and ICO issuers may (unknowingly) assume a significant tax risk, and source states may not be aware of potential tax revenue that they have the right to tax according to bilateral tax treaties similar to the OECD Model. The other scenario is that the high complexity and legal uncertainty may prevent companies from conducting and ICO investors from participating in cross border ICOs – despite the economic value that such a manner of raising capital is argued to create.

On this basis, it is contended that international tax law as its stands *de lege lata* violates the fundamental principle of legal certainty that requires the law to be clear, easily accessible, and comprehensible as well as to create a balance between stability and flexibility.[148] Although it is recognized that it is not possible to eliminate all uncertainties in law, it has been argued that policymakers should persistently strive to minimize legal uncertainty as the alternative risks distorting the functioning of the market.[149] Nonetheless, it is argued that the OECD Model is currently in need of improvement in the context of defining its scope with regards to payments related to ICOs.

It is further argued that failure to provide clarification in respect of the classification of payments related to ICOs will have – and has already had – a negative impact on the level of ICOs. The urgent need for action from policymakers is proven by the fact that the level of ICOs has been decreasing since 2018, inter alia as a consequence of ambiguous regulations or even a lack of regulations within some fields of law.[150] Likely, as a result of the reluctance to provide regulatory guidance, so-called security token offerings (hereinafter STOs) have experienced a growing interest, being marketed as a more regulated means of raising capital compared to ICOs – by relying on traditional types of securities while still (to some extent) benefitting and creating economic value from the main principles of blockchain technology.[151]

Although there is no internationally accepted definition of STOs, the phenomenon has previously been described as tokenized versions of conventional securities, e.g. share certificates or bonds for which the tokenization bring these digital assets onto a secondary 'on-chain' market based on decentralized

Notes

[146] *See* e.g. Bundgaard, *supra* n. 14, at 9–11 and Ch. 12, Tax Policy Considerations, in which the author provides a review of existing literature and theoretical tax policy considerations in the context of more traditional hybrid financial instruments.

[147] Bärsch, *supra* n. 36, at 14 & 15.

[148] D. Weber & T. Sirithaporn, *Legal Certainty, Legitimate Expectations, Legislative Drafting, Harmonization and Legal Enforcement in EU Tax Law*, in: *Principles of Law: Function, Status and Impact in EU Tax Law*, GREIT Series (C. Brokelind ed., IBFD 2014), and G. T. Pagone, *Tax Uncertainty*, 33(3) Melb. U. L. Rev. 887 (2009), citing S. Joseph & M. Castan, *Federal Constitutional Law: A Contemporary View* 6 (Law Book Co. 2006) and J. Raz, *The Rule of Law and Its Virtue*, 93(2) L. Q. Rev. 198–202 (1977).

[149] Weber & Sirithaporn, *supra* n. 146, and Pagone, *supra* n. 146, citing Joseph & Castan, *supra* n. 146, and Raz, *supra* n. 146.

[150] See OECD, *The Tokenisation of Assets and Potential Implications for Financial Markets, OECD Blockchain Policy Series* 10 (OECD Publishing 2020).

[151] *Ibid.*, at 13, *see* s. 2.1.2. in regard to the main principles of blockchain technology.

ledger technology that is typically in the form of blockchain technology.[152] Tokenized securities can be either directly issued on the blockchain if domestic corporate legislation allows for this[153] or issued as conventional securities that are tokenized in a second stage.[154]

Consequently, STOs may provide the means of raising capital and trading securities that are more comparable to the conventional methods generally used today[155] while still allowing for efficiency gains through disintermediation and automatization by deploying blockchain technology and its main principles – although the significance of the main principles is still dependent on the consensus mechanism and the underlying governance structure. Further, the tokenization of securities – similar to ICOs – permits fractional ownership of the tokenized securities and thereby allows for access that is more inclusive of small investors. It also enables global pools of capital to reach parts of the financial markets previously reserved for large and professional investors while still allowing investors to diversify their investments and potentially making securities issued by small and medium sized enterprises more liquid and thereby attractive to more investors.[156]

However, from the perspective of the issuer, STOs – compared to ICOs – are not as cost-efficient as the issuer should still comply with all existing regulations for issuing conventional securities and the costs associated with this process. In addition, the STO issuers also have to bear the costs associated with tokenizing the securities. Another disadvantage of STOs compared to ICOs is that, from the perspective of the issuer, it should be expected that STOs are conducted at a later stage of the business life-cycle compared to ICOs as a consequence of having to comply with existing regulation for issuing conventional securities and incurring the associated costs. To sum up, a change from raising capital through ICOs to STOs does not come without costs despite that some economic value may still be created through the main principles of blockchain technology.

From a tax perspective, it could be argued that, whereas equity tokens, debt tokens, and utility tokens are new products representing pre-defined rights and obligation on the ICO investor and the ICO issuer, tokens issued through STOs represent ownership of traditional securities complying with existing regulation, i.e. issuing and transacting tokenized securities do not create new products as it is the form and not the substance of the product that changes through tokenization. This interpretation seems to be in accordance with the general principle of neutrality as discussed above. On the other hand, it could be argued that, if securities are issued through the conventional method and tokenized in a second stage, the tokenized security could be more comparable to so-called Global Depositary Receipts[157] which have previously been subject to debate in the international tax literature regarding classification of such certificates.[158] Consequently, although tokenization of securities may be argued to benefit less from regulatory arbitrage compared to the ICO market, the extent to which current regulation including domestic and international tax law is sufficiently encompassing any and all aspects of tokenization processes and practices is still debated and should be subject to further analysis and potential political action if the full potential should be achieved.[159]

In conclusion, despite the fact that market and technological development is attempting to adapt to existing regulation, clarity on the applicable regulatory framework, including domestic and international tax law, is of paramount importance if the potential of economic value should be achieved.[160] Further, it is argued in this article that failure to provide such clarification will have negative impacts possibly going beyond ICOs and the financial market as it is argued that the promotion and development of blockchain-based solutions in general may also be negatively impacted. In other words, there could be fear that, if the general understanding is that the regulation of blockchain-based solutions is highly

Notes

[152] See OECD, *supra* n. 148, at 13.

[153] The Delaware General Corporation Law was amended 1 Aug. 2017 to allow corporations to maintain shareholder lists and other corporate records using blockchain technology; *see* USA: Senate Bill 69 – An Act to Amend Title 8 of the Delaware Code Relating to the General Corporation Law.

[154] See OECD, *supra* n. 148, at 15.

[155] *Ibid.*, at 14. It is stated that the electronification of financial markets and the use of automation for the issuance and trading of financial instruments is not new; securities have existed in electronic-only format for a long time.

[156] See OECD, *supra* n. 148, at 16 & 17.

[157] American Depositary Receipts are negotiable certificates issued by a bank of the United States that represent the property rights of the holder of said certificates over shares issued by a foreign company whose shares are traded on the foreign local public stock market. Such negotiable certificates can also be referred to as American Depository Receipts or Shares, New York shares, and EURO Depository Receipts.

[158] *See* e.g. V. Salvadori di Wiesenhoff & R. Egori, *2013 Italian Financial Transaction Tax*, 15(2) Derivatives & Fin. Instruments 2 (2013); V. Salvadori di Wiesenhoff, *Update on Financial Transaction Tax*, 15(6) Derivatives & Fin. Instruments (2013) and the same in V. Salvadori di Wiesenhoff, *Italian Financial Transaction Tax Implications of the Evolving Regulatory Landscape: The Post-MiFID II Financial Market Ecosystem*, 20(6) Derivatives & Fin. Instruments (2018) and V. Salvadori di Wiesenhoff, *Brexit: Deal or No Deal? Regulatory and Tax Implications for the Banking and Financial Services Industry – Part II* 21(6) Derivatives & Fin. Instruments (2019). F. Rubinstein and S. Samaha, *Taxation of Investments on the Brazilian Capital Market: New Tax Incentives and Recent Changes*, 17(3) Derivatives & Fin. Instruments (2015); R.-A. Papotti & M. Gusmeroli, *Italian FTT in Practice: Issues and Solutions*, 19(4) Derivatives & Fin. Instruments (2017); A. Czollak & F. Yáñez, *The Impact of the New General Anti-Avoidance Rules on the Assessment of Hybrid Financial Instruments and Entities*, 21(5) Derivatives & Fin. Instruments (2019); S. Suffiotti & C. Masihy, *Recent Developments in the Taxation of Indirect Share Transfers in South America: Lessons and Challenges from Chile, Colombia, Peru and Uruguay*, 73 Bull. Int'l Tax'n 9 (2019).

[159] See OECD, *supra* n. 148, at 18.

[160] *Ibid.*, at 40 & 41.

uncertain and, therefore, imposes a significant regulatory risk on all participating parties, this may imply that such opportunities are delayed or even rejected. Hence, although the majority of initiatives today focus on improving existing process flows,[161] it has been argued that blockchain technology may have the potential to facilitate new decentralized business models benefitting from the main principles of blockchain by applying permissionless and public blockchain, e.g. highly centralized business models of cloud computing service providers and intermediary platforms within the sharing economy.[162] In absence of political action, the adoption of new technologies such as blockchain technology will decelerate or even fail.

Notes

[161] Critics point out that, for many of these projects, the immediate benefits come from digitization and process redesign but not blockchain technology. *See* e.g. A. Forrester, *Emerging Technology Projection: The Total Economic Impact™ Of IBM Blockchain*, Study Commissioned by IBM 4 (July 2018).

[162] *See* e.g. E. Gaetani et al., *Blockchain-Based Database to Ensure Data Integrity in Cloud Computing Environment*, Proceedings of the First Italian Conference on Cybersecurity (ITASEC17) (2017), https://eprints.soton.ac.uk/411996/ (accessed 13 Mar. 2020). S. Huckle et al., *Internet of Things, Blockchain and Shared Economy Applications*, 98 Procedia Computer Science 461–466 (2016).

Taxable Presence and Highly Digitalized Business Models

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In this article, the authors discuss how the digitalization of the economy is affecting nexus rules and analyze international tax treaty law on permanent establishment and the taxable presence of digital businesses.

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I. Introduction and Scope

As the economy moves from the physical world to the online space, it has become clear that international tax rules continue to focus primarily on physicality.[1] Accordingly, much of the debate about the tax challenges of digitalization has revolved around the perception that the tax rules are outdated for highly digitalized business models, which to some extent no longer require physical presence in a given market (sometimes referred to as the ability to obtain scale without mass).[2] That development has been said to affect the distribution of taxing rights by reducing the number of jurisdictions that can assert those rights over business profits from cross-border activities.[3]

Based on that understanding, it is commonly argued that the concept of permanent establishment in the era of digitalization appears less relevant, or even obsolete,[4] and that a new threshold is therefore needed to source taxation.[5]

Hence, when policymakers — be it supranational or unilateral — suggest a new threshold for taxable nexus, the proposals are often based on the belief that the rules currently applicable cannot capture the value creation of digitalized business models and thus generate tax revenue in market jurisdictions. An example of that is the policy rationale behind the OECD's

[1] *See, e.g.*, Marcel Olbert and Christoph Spengel, "International Taxation in the Digital Economy: Challenge Accepted?" 9(1) *World Tax J.* (2017); Daniel W. Blum, "Permanent Establishments and Action 1 on the Digital Economy of the OECD Base Erosion and Profit Shifting Initiative — The Nexus Criterion Redefined?" 69(6/7) *Bull. Int'l Tax'n* (2015); Georg Kofler, Gunter Mayr, and Christoph Schlager, "Taxation of the Digital Economy: 'Quick Fixes' or Long-Term Solution?" 57(12) *Euro. Tax'n* (2017); and Yariv Brauner and Pasquale Pistone, "Adapting Current International Taxation to New Business Models: Two Proposals for the European Union," 71(12) *Bull. Int'l Tax'n* 681 (2017).

[2] OECD, "Tax Challenges Arising From Digitalisation — Interim Report 2018," at 24 (Mar. 16, 2018).

[3] OECD, "Addressing the Tax Challenges of the Digitalization of the Economy — Public Consultation Document," at 8 (Feb. 2019).

[4] Vishesh Dhuldhoya, "The Future of the Permanent Establishment Concept," 72(4a) *Bull. Int'l Tax'n* 12 (2018).

[5] Peter Hongler and Pistone, "Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy," Working Paper, at 14 (2015); and Michael P. Devereux and John Vella, "Implications of Digitalization for International Corporate Tax Reform," WP 17/07, at 25 (July 2017).

February 2019 consultation document to address the taxation of a digitalized economy:

> These proposals would require fundamental changes to both the profit allocation and nexus rules and expand the taxing rights of user and market jurisdictions. . . . These proposals have the same over-arching objective, which is to recognize, from different perspectives, value created by a business's activity or participation in user/market jurisdictions that is not recognized in the current framework for allocating profits.[6]

The OECD argues that specific characteristics — primarily observed in highly digitalized businesses — enable value creation by activities closely linked with a jurisdiction without needing to establish a physical presence there.[7] Further, it says that kind of remote participation in a domestic economy is the key issue in the digital tax debate, despite different views on the scale and nature of those challenges, as well as whether and to what extent the international tax rules should be changed.[8]

It seems, however, that a thorough analysis across digitalized business models has not been carried out.[9] That also seems to be somewhat recognized by the OECD inclusive framework in the consultation document, given that the second question for public comments was: "To what extent do you think that businesses are able, as a result of the digitalisation of the economy, to have an active presence or participation in that jurisdiction that is not recognised by the current profit allocation and nexus rules?"

Despite the numerous responses, none seems to provide thorough answers to that question.[10] Hence, digitalized business models might not qualify as PEs under the current rules. Further, not all states share that simplified view and are therefore trying to determine if a right to tax can be established under current tax legislation.[11] Many tax disputes are pending, so it could take years before we fully understand the limitations to the PE concept when applied to digitalized business models.[12]

This article is meant to shed further light on the topic by systematically confronting the notion of a PE as defined in the 2017 OECD model tax convention[13] by analyzing several business models that have arisen in connection with the digitalization of the economy[14] (typically referred to as "highly digitalized business

[6] OECD, *supra* note 3, at 23. The February 2019 consultation document supports the digitalization work by the inclusive framework under its mandate from the G-20 finance ministers and working through its Task Force on the Digital Economy. Similar thinking is presented in OECD, "Secretariat Proposal for a 'Unified Approach' Under Pillar One — Public Consultation Document," at 7 (Oct. 2019); and 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 — January 2020," at 8 (Jan. 2020).

[7] The three emphasized characteristics are scale without mass, a heavy reliance on intangible assets, and intensive use of data and user participation.

[8] OECD February 2019 consultation document, *supra* note 3, at 8.

[9] Olbert and Spengel, "Taxation in the Digital Economy — Recent Policy Developments and the Question of Value Creation," 3 *Int'l Tax Stud.* (2019). They state that "there is no in-depth analysis of what the current tax challenges are and that no scientific evidence exists for the asserted flaws in the existing tax system." They identify several presumptions made by the European Commission in two draft Council Directives issued in March 2018 (COM(2018) 147 and COM(2018) 148 final), including that the corporate tax rules are outdated. The authors state that "[U]ndoubtedly, the current framework of international and domestic tax law that is in place dates back to a time when the use of information technologies by most businesses was far from intense or sophisticated, if even existent. Since then, entirely new business models (and companies) have emerged and are still emerging. One can thus conclude that tax rules are outdated and that the time is right to rethink the current framework and existing rules." Devereux and Vella have also touched on the question, although without systematically analyzing highly digitalized business models. *See supra* note 5.

[10] See also the comprehensive study conducted by Pistone, João Félix Pinto Nogueira, and Betty Andrade, "The 2019 OECD Proposals for Addressing the Tax Challenges of the Digitalization of the Economy: An Assessment," 2 *Int'l Tax Stud.* 9-11 (2019), only briefly touches on the question before moving on to assess the OECD's proposals.

[11] The Spanish Supreme Court (Tribunal Supremo), "Spanish Dell Case," 2555/2015 (2016). That notion is also mentioned by Jose Luis Migoya Vargas (Spain) in "Withholding Tax in the Era of BEPS, CIVs and the Digital Economy," 103(B) *IFA Cahiers* 645 (2018). For an analysis of the case, see Adolfo J. Martín Jiménez, "The Spanish Position on the Concept of a Permanent Establishment: Anticipating BEPS, Beyond BEPS or Simply a Wrong Interpretation of Article 5 of the OECD Model?" 70(8) *Bull. Int'l Tax'n* 458 (2016).

[12] Further, as recognized by the OECD and pointed out in several responses to the consultation document, the consequences of the final BEPS implementation remain to be seen in full effect. *See* OECD 2018 interim report, *supra* note 2, at 91. *See also, e.g.*, the Digital Economy Group's response to the OECD (2019), at 4.

[13] Jacques Sasseville and Arvid Skaar, "Is There a Permanent Establishment?" 94a *IFA Cahiers* 23 (2009); and Philip Baker, *Double Taxation Agreements and International Tax Law* 2 (1991). Further, it is too early to assess with certainty the impact of the PE provisions in individual tax treaties as implemented by the OECD multilateral instrument. Moreover, the MLI overlaps with the 2017 OECD model and commentary and therefore serves as a credible proxy for tax treaties updated by it.

[14] This article does not use "digital economy," a term the OECD has rightfully abandoned. See OECD, "Addressing the Tax Challenges of the Digital Economy, Action 1 — 2015 Final Report," at 54 (2015), which notes that the digital economy is simply embedded in the economy and that it is difficult, if not impossible, to ring-fence it from the rest of the economy.

models").[15] Until now this has been assumed widely (and repeated eagerly) without any further analysis and solely based on the obvious finding that some digital business models enable the conduct of business without any physical presence in the market state. It also examines the actual impact of recent base erosion and profit-shifting initiatives, which lowered the threshold for nexus in some digital business models.

Because of the scale and complexity of the challenges of the topic analyzed in this article, some demarcations are necessary. First, while an analysis of the profit allocation to PEs created in highly digitalized business models is inherently linked to answering whether the current rules can capture value creation of those models and thus generate acceptable tax revenues in market jurisdictions, that analysis is outside the scope of this article. Moreover, an analysis of whether the activities of highly digitalized business models create service PEs, as known from the U.N. model tax convention and implemented as an option in the OECD model, also falls outside the scope of this article. Finally, this article does not contribute to pending discussions on the tax policy design of a new digital or significant economic presence.[16]

This article does not claim to provide a final answer to the tax challenges imposed by the digitalization of the economy. Instead, it presents details on various digital business models under the current international tax order and offers input for the ongoing policy discussion.

II. The Tax Challenges of Digitalization

The digitalization of the economy is the result of a transformative process by information and communications technology that has made technologies cheaper, more powerful, and widely standardized, thereby improving business processes and fostering innovation across all economic sectors.[17] That all sectors are affected implies that it is generally impossible to define and ring-fence the digital economy for tax purposes.[18] Instead, as a part of the BEPS project, the OECD has identified key features of business models in the digital space, as well as their associated tax challenges. The most important features are use of multisided business models, heavy reliance on intangible assets, extensive collection of user data and user participation, and an ability to scale without mass.[19] This article analyzes to what extent digitalized businesses can carry out their business without physical presence and thereby create a taxable presence.

The use of multisided business models refers to businesses through which several distinct groups of users and customers interact. Those business models typically enjoy indirect network externalities, meaning an increase in users on one side of the market increases the utility of users in another market at little or no cost to the business. Further, those businesses may adopt nonneutral pricing strategies, implying that optimal prices can be below the marginal cost of providing services on one market side (for example, free services provided to end-users), while being above marginal cost on the other side (for example, selling ad spaces targeted at the end-users sold to third-party customers).[20] However, capturing value from the externalities generated by free products (or barter transactions[21]) and the difficulty of determining the jurisdiction where value creation occurs have been the subject of great concern and debate.[22]

Reliance on intangible assets, particularly intellectual property such as software and websites, is typically an important driver of business value. Because where a company's intangible assets are controlled and managed has a material impact on where that company's profits

[15] OECD 2018 interim report, *supra* note 2, at Chapter 2.

[16] *E.g.*, European Commission, "Recommendation Relating to the Corporate Taxation of a Significant Digital Presence," C(2018) 1650 final (Mar. 21, 2018); Hongler and Pistone, *supra* note 5; and Blum, *supra* note 1, at 314. *See also* OECD action 1 final report, *supra* note 14, at 107; and February 2019 consultation document, *supra* note 3, at 16.

[17] OECD action 1 final report, *supra* note 14, at Chapter 3.

[18] *Id.* at 142.

[19] OECD, 2018 interim report, *supra* note 2, at 24; and Tsutomu Endo, "Modification of a Taxable Nexus to Address the Tax Challenges of the Digital Economy," *Taxation in a Global Digital Economy* 107-108 (2017).

[20] OECD 2018 interim report, *supra* note 2, at 23.

[21] *Id.* at 29. In "Allocation of the Right to Tax Income From Digital Intermediary Platforms — Challenges and Possibilities for Taxation in the Jurisdiction of the User," 1 *Nordic J. Comm'l L.* 153-161 (2018), Louise Fjord Kjærsgaard and Peter Koerver Schmidt discuss whether the users' provision of personal data in exchange for access to an intermediary platform can be considered a barter transaction for tax purposes in the user jurisdiction.

[22] OECD action 1 final report, *supra* note 14, at 16.

are subject to tax, and because those assets are highly mobile, the OECD has argued that they can be used to shift income into low- or no-tax environments.[23]

User data and user participation may be collected to develop products and services, provide content for other users of the product or services provided by the business, and for advertising targeting users. The OECD has noted that companies are making increasing and more intensive use of data.[24] It has argued that the value created from the changing nature of customer and user interaction is not sufficiently captured in user jurisdictions under an international framework that focuses on the physical activities of the business itself, which because of the ability to scale without mass, may be outside the user jurisdiction.[25]

Scale without mass refers to the ability to locate parts of the production function across jurisdictions while accessing customers worldwide. The OECD has said that advances in digital technology have not changed the fundamental nature of the core business, which in simplified terms should still just add value to input and allow businesses to sell to customers at a better price than competitors.[26] However, digitalization enables businesses to carry out the value-adding activities remotely, automatically, and faster. Further, the OECD has argued that this dematerialization is most significant — although not unique — to digitalized business models, and because of cost-efficient cloud-based solutions, could be applicable to not only large multinationals but also to small enterprises.[27] That limited need for physical presence when doing business has been argued to reduce the number of jurisdictions where a taxing right to business income can be allocated. However, as also recognized by the OECD, in many cases, large multinational enterprises will indeed have taxable presence in the countries where their customers are located — for example, to ensure high-quality service, have a direct relationship with key clients, or minimize latency.[28]

Some members of the inclusive framework have said that the key features described above work together to particularly enable highly digitalized businesses to create value by activities closely linked with a jurisdiction without needing to establish a sufficiently physical and thereby taxable presence either in the form of a subsidiary or a PE.[29]

Commonly known examples of digital business models include cloud computing, social networking, online retailers, intermediary platforms, and search engines. The rise of businesses that primarily transact with customers via the internet undoubtedly tests many traditional tax principles. An increase in remote activities will create problems for tax authorities, which may encounter difficulties in taxing economic activities that take place outside their geographic jurisdictions. Therefore, those types of business models are analyzed to understand which activities could create taxable presence in the form of PE.

III. The PE Concept in a Nutshell

The PE concept is in most tax treaties[30] and is one of the most analyzed international tax concepts. Even so, its applicability in the digital context has been questioned because of its inherent physical presence requirement.[31] However, the amendments to article 5 of the OECD model tax convention and its commentaries over time have lowered the threshold for required physical presence. For instance, the commentary additions of the painter example and provisions on e-commerce and optional service PEs, as well as the implementation of BEPS action 7 on preventing the artificial avoidance of PE status, all seem to lower the threshold for when source taxation can be established through a PE.

[23] OECD 2018 interim report, *supra* note 2, at 24, 52-53; and OECD action 1 final report, *supra* note 14, at 65-68.

[24] OECD 2018 interim report, *supra* note 2, at 24, 53-59; and OECD action 1 final report, *supra* note 14, at 68-70.

[25] OECD, *supra* note 3, at 10.

[26] OECD 2018 interim report, *supra* note 2, at 167.

[27] OECD 2018 interim report, *supra* note 2, at 52-53; and OECD action 1 final report, *supra* note 14, at 100-102.

[28] OECD action 1 final report, *supra* note 14, at 100-102.

[29] OECD February 2019 consultation document, *supra* note 3, at 9.

[30] Sasseville and Skaar, *supra* note 13; and Baker, *supra* note 13.

[31] Hongler and Pistone, *supra* note 5; and Devereux and Vella, *supra* note 5.

The PE concept acts as the main allocator of taxing rights for cross-border activities. Business income from cross-border activities is taxable only in the country of residence, unless the business has a PE in the market state (assuming that payments received are not subject to withholding tax). The concept as commonly applied in tax treaties is largely based on the concept as stated in article 5 of the OECD model tax convention[32] that a PE can be created based on the main rule (a basic PE) or the secondary rule (an agency PE).

According to article 5(1) of the 2017 OECD model, a basic PE is a fixed place of business through which the business of an enterprise is wholly or partly carried on.

Regarding the challenges presumed to be driven by the digitalization of the economy, specific provisions on e-commerce were included in the commentary to article 5 of the OECD model tax convention in 2003. In the 2017 version, the comments are in paragraphs 122-131 and primarily focus on when a server may create a PE.[33] They may thus be of limited use for newer, highly digitized business models based on various cloud solutions. The main conclusions from the 2003 commentary (also found in the 2017 version) are argued to be, on the one hand, that a website does not in itself constitute tangible property and consequently is not a location that is a place of business as far as the software and data constituting that website are concerned.[34] On the other hand, the server — where the website is stored and through which it is accessible — is a piece of equipment having a physical location that could constitute a place of business of the enterprise operating it. Hence, the distinction between the website and the server is important when the enterprise operating the server is different from the enterprise that carries on business through the website.[35]

When the three cumulative conditions are all met, the following exceptions may apply under article 5(4) of the 2017 OECD model if the activities are preparatory or auxiliary to the specific business model analyzed:

- using facilities solely for the storage, display, or delivery of goods belonging to the enterprise;
- maintaining a stock of goods belonging to the enterprise solely for the storage, display, delivery, or processing by another enterprise;
- maintaining a fixed place of business solely for purchasing goods or merchandise or collecting information for the enterprise; or
- carrying on any other activity for the enterprise.

For e-commerce, the commentaries list several activities as generally being of a preparatory or auxiliary character:

- providing a communications link between suppliers and customers;
- advertising goods or services;
- relaying information through a mirror server for security and efficiency purposes;
- gathering market data for the enterprise; and
- supplying information.[36]

Further, the maintenance of a fixed place of business solely for any combination of activities mentioned above will not create a PE if the overall activity of the fixed place of business is preparatory or auxiliary. Consequently, whether each individual activity is indeed preparatory or auxiliary, as well as whether all the activities in

[32] Sasseville and Skaar, *supra* note 13. Further, even the amendments in article 5 of the 2017 OECD model implementing the BEPS action 7 recommendations are of practical relevance in older tax treaties because MLI articles 12 (artificial avoidance of PE status through commissionnaire arrangements and similar strategies) and 13 (artificial avoidance of PE status through the specific activity exemption) give countries the opportunity to implement them in existing tax treaties.

[33] For criticism, see Hazal Işınsu Türker, "The Concept of a Server PE in the Digital Economy," *Taxation in a Global Digital Economy* 130 (2017), stating that focusing on the server just because it fulfills the physical presence criterion cannot solve the presumed problems of taxing the digitalized economy.

[34] Para. 123 of the OECD model commentary to article 5. In accordance with that interpretation, see the Danish Tax Assessment Board in SKM2011.828.SR (2011) and SKM2014.268.SR (2014), stating that a non-Danish tax-resident company intending to offer online games via Danish websites from servers located outside Denmark would not create a PE in Denmark because there would be no fixed place of business there. See Türker, *supra* note 33, at 132, critiquing the position on websites and urging lawmakers to design a new PE definition including them. Some countries have taken that position in case law. *See, e.g.*, A.S. Özgenç, "Recent Turkish Decision Finds that a Website Can Constitute a Permanent Establishment," (59)2/3 *Eur. Tax'n* 135-137 (2019), discussing a Turkish Supreme Administrative Court decision that found that a website can constitute a PE.

[35] Para. 124 of the OECD commentary to article 5.

[36] Para. 128 of the OECD commentary to article 5.

their synergy are effectively preparatory or auxiliary, should be analyzed.[37]

Before the implementation of BEPS action 7, it was debatable whether the activities explicitly mentioned were also subject to a preparatory or auxiliary requirement or whether they per se could not create a PE.[38] However, in practice, many enterprises and national courts adopted a strict literal interpretation of the provision and were of the view that the preparatory or auxiliary requirement was referred to only in the catch-all provisions in article 5(4)(e) and (f) of the 2014 OECD model and therefore did not apply to the other activities listed in article 5(4)(a)-(d).[39] As a consequence of the digitalization of the economy, that interpretation resulted in BEPS concerns, because it arguably allowed some companies to undertake their core business in the market jurisdictions without creating a taxable presence there.[40] The amendments to article 5(4) of the 2017 OECD model mean that even the listed activities must be subject to the preparatory or auxiliary requirement, which should be assessed based on the business of the individual enterprise. Hence, an economic substance test is now included.[41]

Moreover, under article 4(1) of the 2017 OECD model, the exemptions do not apply when activities between closely related parties have been fragmented. In simplified terms, the exemptions do not apply to a fixed place of business that is used or maintained by an enterprise if the same, or a closely related, enterprise carries on complementary functions that are part of a cohesive business operation in the same jurisdiction. Unfortunately, the commentaries do not provide much guidance on what should be considered complementary functions or cohesive business operations.[42] The article 5 commentaries include two examples from which it can be concluded that: (1) in a bank, the verification of information provided by clients is a complementary function to a decision on a loan application and part of a cohesive business operation of providing loans to clients;[43] and (2) a store selling appliances is a complementary function to a small warehouse when identical items are stored and part of a cohesive business operation of storing goods in one place for delivering those goods in accordance with the obligations from their sale.[44]

Finally, if an enterprise's activities do not constitute a basic PE, an agency PE may be created if a person is acting on behalf of the enterprise and in doing so, habitually concludes contracts or plays the principal role leading to the conclusion of contracts that are routinely concluded without material modification. Before the implementation of the BEPS action 7 recommendations, only a dependent agent who habitually exercised the authority to conclude contracts in the name of, or binding on, the principal was deemed to constitute an agency PE.[45] Both MNEs and many national courts adopted a strict literal interpretation of those two requirements. That enabled MNEs to either limit the authority given to the agent, such that the agent would do all the pre-sales activities in the market jurisdiction, yet the contract would ultimately be concluded by the principal, or deploy commissionnaire arrangements so that the agent concluded contracts with customers in its own name and

[37] Paras. 73, 129, and 130 of the OECD commentary to article 5.

[38] OECD, "OECD Model Tax Convention: Revised Proposals Concerning the Interpretation and Application of Article 5 (Permanent Establishment)," at 24-26 (Oct. 19, 2012). The OECD's opinion was that model article 5(4)(e) stipulated that those activities had to be of a preparatory or auxiliary nature (para. 21 of the 2014 OECD model commentary on article 5). A similar opinion can be found in international tax literature. *See, e.g.*, Rahul Batheja, "Treaty Abuse and Permanent Establishments: Proposed Changes to Article 5(3) and (4) of the OECD MC," *Series on International Tax Law: Preventing Treaty Abuse* 386-387 (2016).

[39] Dhuldhoya, *supra* note 4; and Batheja, *supra* note 38.

[40] OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status, Action 7 – 2015: Final Report," at 10 (2015).

[41] That may be illustrated by the example in para. 62 in the 2017 OECD model commentary on article 5 regarding a fixed place of business constituted by important facilities used by an enterprise for storing, displaying, or delivering its own goods or merchandise — that is, the local storing is an essential part of the enterprise's sale and distribution business and would therefore not have a preparatory or auxiliary character.

[42] Sonia Watson, Nick Palazzo-Corner, and Stefan Haemmerle, "UK View on Revised PE Standards in the Multilateral Instrument," 24(3) *Int'l Transfer Pricing J.* 182 (2017), point out that the lack of clarity in the test has caused concern among companies, which they say they expect will inevitably lead to disputes between taxpayers and tax authorities.

[43] Para. 81 of the OECD commentary to article 5.

[44] Para. 82 of the OECD commentary to article 5.

[45] Article 5(5) of the 2014 OECD model. Further, paragraphs 21, 32.1, and 33 of the 2014 OECD model commentary on article 5 clarified that the authority to conclude should be viewed in the context of contracts that constituted the enterprise's business proper and that only persons who, in view of that authority or the nature of their activity, involved the enterprise to a particular extent in business activities in the market jurisdiction would be deemed a PE.

thereby avoided creating a deemed agency PE of the MNE in the market jurisdiction.[46] However, the amendments in article 5(5) of the 2017 OECD model imply that those limitations to agent authority and the use of dependent commissionnaire arrangements constitute a deemed agency PE for the principal.[47]

What seems apparent is that neither a basic nor an agency PE can exist in the absence of some degree of physical presence. As already noted, that basic finding has been said to cause frustrations in determining the taxable presence of highly digitalized business models if they are in fact able to operate without physical presence in the market jurisdictions.

IV. PEs and Highly Digitalized Models

The objective with this study is to gain an increased understanding of the international standards regarding taxable presence, as well as the ability of those standards to effectively capture business income generated through digitalized business models. To test that, some basic knowledge is needed of the models deemed to cause frustration in the international tax community among lawmakers and tax administrations.

Although our examples are much simplified relative to actual practice, they still serve to illustrate the main points and can be used to determine whether the various models will create a PE in the market jurisdictions where server farms are located, sales-related activities are performed, and marketing and customer support services are provided.

A. Cloud Computing Model

1. Overview

A cloud computing business[48] creates value and earns revenue by providing a broad set of on-demand, standardized, and highly automated computing services to customers.[49] Hence, cloud customers do not have to make large upfront investments in hardware because their business activities take place on a network of remote servers through the internet rather than on local servers. Because cloud devices are continually updated, customers can access the most recent technology, and because they involve both virtual and physical servers, they allow customer flexibility and scalability in server capacity.

Depending on the form of cloud computing, the cloud services are typically provided on a pay-as-you-go or subscription basis. They may also be provided as a freemium model that generates revenue through advertising, sale of customer data, or sale of expanded services requiring payment. The cloud computing market is known to obtain economies of scale[50] and may be characterized as a high-volume, low-margin business. Finally, according to the OECD, cloud computing business models are hardly comparable to more traditional counterparts because they appear truly new. Figure 1 illustrates a generic business model for the provision of cloud computing services.

A cloud computing service provider (CCSP) such as Amazon Web Services and Google Cloud Platform is typically the group principal. It

[46] Dhuldhoya, *supra* note 4; and Philip Baker, "Dependent Agent Permanent Establishments: Recent OECD Trends," *Series on International Tax Law: Dependent Agents as Permanent Establishments* 24-28 (2014). The authors argue that the controversy surrounding the interpretation of the phrase "the authority to conclude contracts in the name of" originates in the differences of interpretation between civil and common law. *See also* David Feuerstein, "The Agency Permanent Establishment," *Series on International Tax Law: Permanent Establishments in International and EU Tax Law* 107 (2011).

[47] Dhuldhoya, *supra* note 4; and Carlo Garbarino, "Permanent Establishments and BEPS Action 7: Perspectives in Evolution," 47(4) *Intertax* 376-378 (2019).

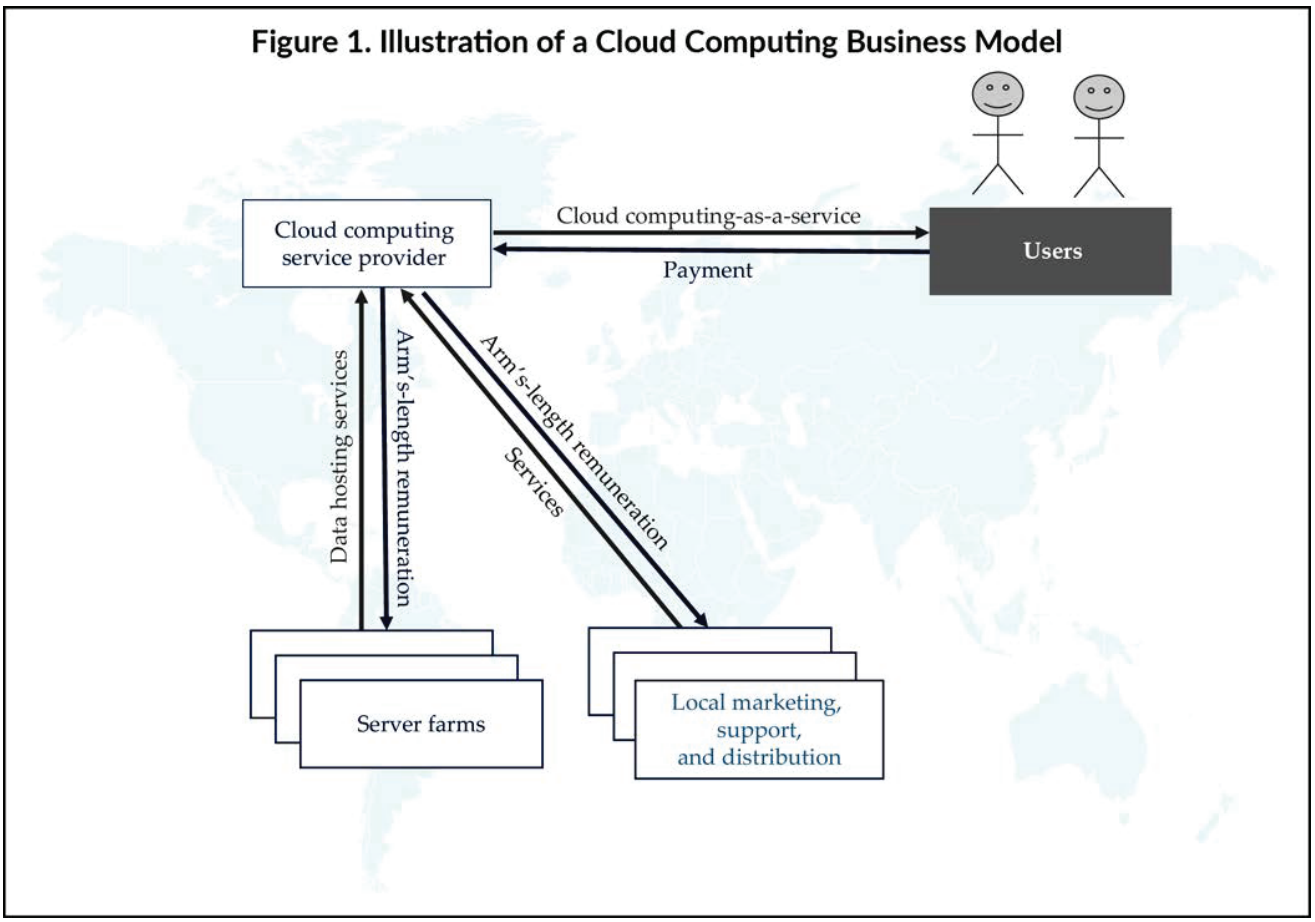
[48] The description provided in the overview is based on the OECD action 1 final report, *supra* note 14, at 59-61, 175-179; and 2018 interim report, *supra* note 2, at 73-79. *See also* Pistone, Nogueira, and Andrade, *supra* note 10, at 11; and Kjærsgaard, "Allocation of the Taxing Right to Payments for Cloud Computing-as-a-Service," 11(3) *World Tax J.* (Aug. 2019).

[49] Cloud computing is not defined for tax purposes specifically. Peter Mell and Tim Grance, *The NIST Definition of Cloud Computing* (2011), provide a general definition:

> A model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computer resources (for example, network, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interactions.

[50] OECD 2018 interim report, *supra* note 2, at 73. Economies of scale occur when the long-run average costs are decreasing given when the quantity produced is increasing, and the input prices are fixed. *See, e.g.*, Robert H. Frank, *Microeconomics and Behavior* 374 (2010). *See also* OECD action 1 final report, *supra* note 14, at 60.

Figure 1. Illustration of a Cloud Computing Business Model



develops and owns intangible assets, including IP such as software and algorithms that it operates on servers worldwide and makes available to customers through various client interfaces. The CCSP also remotely coordinates marketing and selling activities to regional operating lower-tier representatives to minimize costs, maintain consistency, and improve efficiency. That representative might conduct some of the following activities:

- ownership and operation of server farms;
- sales activities, although contracts with customers are typically concluded electronically through websites based on more or less standard agreements whose terms are set by the principal; and
- marketing and customer support services.

2. When Is a PE Created?

a. Server Farms

The first scenario to be analyzed is whether the server farms will create a PE of the CCSP if the servers are owned and operated by the CCSP itself.[51]

Because physical servers are equipment with physical locations that may constitute a fixed place of business of the enterprise that operates them (assuming they are not moved for a sufficient period[52]), they might fulfill the requirement of being a fixed place of business. Further, if the CCSP is operating its own servers to provide cloud computing as a service to customers, it is most likely carrying out business through that fixed location while also taking into

[51] This analysis is somewhat based on the analysis in Kjærsgaard, *supra* note 48.

[52] According to paragraph 28 of the 2017 OECD model commentary on article 5, a PE is often created when the place of business is maintained longer than six months.

account that a PE may exist even though it has no or few employees at the server farms.[53]

However, even if the three cumulative conditions for creating a PE are met, activities considered preparatory and auxiliary based on a case-by-case assessment will not constitute a PE. The OECD provides no exhaustive list, but as a general rule, auxiliary activities are of a supporting nature, typically without the need for significant assets or employees, and preparatory activities are those that are carried on for a relatively short period in contemplation of the essential and significant part of the CCSP.[54] Article 5(4) of the 2017 OECD model and the commentaries list some activities that typically are preparatory or auxiliary:

- using facilities solely to store, display, or deliver goods belonging to the enterprise;
- providing a communications link;
- relaying information through a mirror server for security and efficiency purposes; and
- supplying information.[55]

As also recognized by the OECD, it may often be difficult to distinguish between activities that are of a preparatory or auxiliary character and those that are not.[56] In other words, it may be difficult to determine whether the activities form an essential and significant part of the CCSP as a whole. The challenges are argued to be even greater for digitalized business models such as that used by the CCSP, because the activities performed are typically a range of integrated services traditionally thought to be preparatory or auxiliary — not directly sales-related — but now inherently belonging to the core of the business.[57] Hence — and although to some extent dependent on the functionality of the servers — it is argued that even though some of the functions performed on the servers are covered by the listed activities, they are not of a preparatory or auxiliary character in a typical cloud computing business model.[58] More specifically, because it is not only the software and data belonging to the CCSP that are stored on the servers, the first listed exemptions should not apply to the provision of cloud computing as a service, which in simple terms may be described as storage of the cloud customers' software and data on physical and virtual servers.

Further, an advantage of cloud computing is its functional overlap — that is, data and software are for security and efficiency purposes generally not stored on one specific server but rather on multiple servers. That feature is argued to be part of the core business of the CCSP, although those activities in other business models may be considered preparatory or auxiliary.[59] Thus, in general it seems fair to conclude that even though servers as machines cannot make decisions or take risks on their own, they are — independent of the type of cloud computing provided — an essential and significant part of the services provided to customers and thereby the core business of the CCSP, even if the hosting service is provided only to the CCSP.[60]

Therefore, if the CCSP owns and operates the servers through which cloud computing services are provided to customers, its activities will typically create a PE in the jurisdictions where the servers are located.[61]

[53] Para. 127 of the 2017 OECD model commentary on article 5. Further, Grégory Abate (France), "Withholding Tax in the Era of BEPS, CIVs and the Digital Economy," 103(B) *IFA Cahiers* 253 (2018), notes that even though the French tax authorities have endorsed the OECD principles, they issued a stricter interpretation of server PE (Ministerial Reply No. 56961 (July 30, 2001)), according to which the absence of operating staff at the server site generally implies that nothing more than preparatory or auxiliary activities take place, so a PE cannot be created. The condition regarding the presence of operating staff could be disregarded only in specific exceptional circumstances in which the sales functions are run automatically by the server where it is located. However, because that stricter interpretation was not included in the September 2012 recast of the official doctrine of the French tax authorities, it is doubtful that it is still the prevailing interpretation.

[54] Para. 60 of the 2017 OECD model commentary on article 5.

[55] *Supra* note 36.

[56] Para. 59 of the 2017 OECD model commentary on article 5.

[57] OECD action 7 final report, *supra* note 40, at 10; and Garbarino, *supra* note 47, at 371.

[58] John Walker and Tom Roth, "The Cloud, E-Commerce and Taxable Presence," 21 *Asia-Pac. Tax Bull.* 2 (2015).

[59] Ekkehart Reimer, "Royalties," in *Klaus Vogel on Double Taxation Convention* 312 (2015).

[60] Para. 130 of the 2017 OECD model commentary on article 5. Many countries have made observations to paragraphs 122-131 of that commentary on the interpretation of PE in e-commerce. The United Kingdom says a server used by an e-tailer, either alone or together with websites, cannot as such constitute a PE (para. 176); Chile and Greece do not adhere to all the interpretations (para. 177); Mexico and Portugal want to reserve their rights not to follow the position (para. 182); and Turkey reserves its position on whether and when the activities constitute a PE (para. 183).

[61] Aleksandra Bal, "The Sky's the Limit — Cloud-Based Services in an International Perspective," 68(9) *Bull. Int'l Tax'n* 515, at 519 (2014).

However, CCSPs have seemingly structured their server farm activities in a way that avoids creating PEs: locating server ownership and operation in a local subsidiary and allowing the CCSP to use the server capacity against an arm's-length remuneration (see Figure 1). As a consequence of the separate-entity approach implemented in article 5(7) of the 2017 OECD model, the mere presence of a subsidiary does not create a PE of the parent; a PE will be created only if the parent's activities create a PE, which requires a fixed place of business to be at the parent's disposal. In that respect, even if the arm's-length remuneration is based on the amount of storage capacity used, and the CCSP has been able to select the specific servers the software should be hosted on, the servers should not be at the CCSP's disposal. However, that changes if the CCSP can be said to de facto operate the servers — potentially even remotely.[62]

That distinction, although not straightforward, might be illustrated in case involving an advance binding ruling from the Danish Tax Assessment Board.[63] A Danish subsidiary of a foreign parent owned a Danish-located data center that included servers and other equipment. Employees of the Danish subsidiary ran, operated, and maintained the server farm and according to an intragroup agreement, delivered on arm's-length terms server capacity to host the parent's webpage. All work on the webpages and applications would be performed so that all software, ad content, and data would be stored on servers located at different addresses. The parent company did not have country-specific webpages; all customers had access to one common webpage, but ad content was directed toward customers based on their demographics.

The Danish subsidiary did not have permission to use or handle the data stored on the servers unless it acted as a service provider on behalf of or under instructions from the parent. The subsidiary would not take part in any agreement to allow it to provide services directly to customers, advertisers, or developers or legally oblige or create obligations for the parent. Personnel employed by, or working under contract for, the Danish subsidiary were primarily responsible for the daily management of the equipment in the data center, including installation, operations, maintenance, and repairs. The employees working in the data center were to follow the instructions received by the relevant management teams for daily operations and maintenance of the datacenter. Access to the datacenter was restricted to the employees of the Danish subsidiary and to specific service providers.

The parent company and a small group of its employees had permission to visit the data center if accompanied by employees of the Danish subsidiary. The parent's employees — located outside Denmark — handled the webpage remotely. They had the ability to monitor the efficiency of the hardware and software installed in the data center, install and uninstall applications, maintain the hosted applications, and handle the software and data stored on the servers. If a server was not working correctly (or in other emergencies), it could be shut down remotely, which also enabled the redirecting of data to other servers. Finally, that remote access was not to differ from the standard terms in any cloud computing arrangement.

The Danish Tax Assessment Board ruled that the Danish subsidiary did not constitute a PE of the parent because the parent could not be considered to own, lease, or operate the servers but instead to pay an arm's-length service fee for the hosting services provided by the subsidiary. The board referred to paragraph 42.2 of the commentary to article 5 of the 2014 OECD model, saying an agreement with an internet service provider under which a website is stored on a server belonging to the provider typically does not result in the server and its location being at the company's disposal, even if the company has been able to determine that its website should be stored on a specific server at a specific location. The board concluded that the parent could be considered to have a server PE in Denmark only if it could exercise control over a server as if it in fact owned or operated the subsidiary's servers. Based

[62] *Supra* note 35.

[63] SKM2016.188.SR. For commentary (in Danish), see also Erik Werlauff in RR 2017 SM.03, pointing out that the decision shows that a PE can be avoided for a foreign company if a Danish subsidiary is established and owns and operates the servers the foreign company's website (data and software) runs on. Further, the concept of a PE in Danish domestic tax law is based on that in the 2014 OECD model.

on the facts, there was no such access because the parent did not have the right to instruct or control the work of the subsidiary's employees. Moreover, the parent company generally did not have physical access to the servers, and remote access could not be regarded as the right to control the servers. Thus, there was no de facto control over the servers, so no PE was created. The board made the reservation in their decision it was assumed that all agreements between the companies should be concluded on arm's-length terms.[64]

The decision is arguably correct: As long as the parent company cannot be regarded as de facto operating the servers — either remotely or via control over the subsidiary's employees — a PE of the CCSP should not be created. Consequently, hosting agreements under typical cloud computing contracts should generally not create PEs — even if between related parties — as long as the structure is well prepared, particularly regarding the CCSP's remote and physical access to the servers, authority to instruct the subsidiary's employees, and compliance with the arm's-length principle.

Somewhat similar interpretations of the PE concept can be seen in case law from other jurisdictions. In CRA Doc. 2012-0432141R3-E, a data center owned and operated by a Canadian affiliate of a U.S. parent company did not constitute a PE of the parent. The subsidiary employees were in principal responsible for the installation, operation, maintenance, and repair of equipment and servers in the data center. The website activities were managed remotely by parent employees who had the ability to monitor the performance of the hardware and software, install and uninstall applications, perform maintenance on the hosted applications, and otherwise manage the software and data. However, employees of the U.S. parent company would have access to the data center for inspection and maintenance only if accompanied by employees of the Canadian subsidiary. The Canada Revenue Agency concluded that the servers owned and operated by the Canadian subsidiary could not be considered at the disposal of the U.S. parent.[65]

Swedish tax authorities have issued guidelines regarding when servers may create a PE.[66] A server in Sweden may create a PE of a foreign company that owns, rents, or otherwise disposes of the server, even if the foreign company has no other business or personnel in Sweden. Moreover, and in line with the commentaries to the OECD model, if a foreign company's business consists of hosting websites or other applications for other companies, the operation of the server to provide services to customers is an essential component of the company's commercial activity and cannot be considered preparatory or auxiliary. Further, a PE could arise even if the business activity consists solely of storing and processing information on a server in Sweden, and even if the server is not used in direct contact with customers.

In summary, the general understanding of a fixed place of business at disposal implies that a cloud computing business model may be structured so that basic PEs of the CCSP can be avoided in the jurisdictions where the servers are located if they are owned and operated by local subsidiaries that are entitled to an arm's-length remuneration. The changes to 2017 model article 5(4) as part of the implementation of BEPS action 7 should not affect that result, because they relate to whether the activities carried out at a fixed place of business at disposal should be considered preparatory and ancillary.

If the local subsidiaries owning and operating the server farms do not constitute basic PEs of the

[64] Somewhat similar decisions have been made in other binding rulings given by the Danish Tax Assessment Board. In SKM 2015.369 SR, a Danish resident company would contractually receive some services but obtain no further rights. It would be responsible for the operation and maintenance of the content placed on the servers (software and data), while the service provider would be responsible for operating the servers and could change functions after notifying the Danish company. The Danish Tax Assessment Board found that the Danish company could not be considered to have facilities where its business activities were performed and therefore its foreign activities did not constitute a PE.

[65] Daryl Maduke and Natasha Miklaucic (Canada), "Withholding Tax in the Era of BEPS, CIVs and the Digital Economy," 103(B) *IFA Cahiers* 146 (2018), argue that the concept of a server PE is unlikely to have a meaningful impact on any Canadian tax revenue loss resulting from the digitization of traditional transactions. The primary reason is that the many major U.S. digital companies reduce the need to have servers in Canada. Secondly, even if it is desirable for a U.S. company to set up a data center in Canada, it may be possible to isolate the data center in a Canadian subsidiary and thereby limit the U.S. parent's liability for Canadian taxes.

[66] *Server som fast driftställe*, Dnr: 202 493137-18/111 (Nov. 23, 2018).

CCSP according to 2017 model article 5(1), the next question is whether they are dependent agents under article 5(5) — that is, whether the server farms habitually play the principal role leading to the conclusion of contracts for the provision of cloud computing as a service by the CCSP. However, that should generally not be the case because the subsidiaries will neither interact, nor be an active part of contracting, with CCSP customers.

Even so, if the negotiation and conclusion of customer contracts are fully automated by the software operated and stored on the servers, a wide and somewhat far-fetched interpretation could be that the subsidiaries' operation of the servers could imply that the servers play the principal role leading to the conclusion of contracts. However, that interpretation cannot be supported because neither the software nor servers can be considered persons under 2017 OECD model article 3, and because the mere storage of software cannot be considered to play the principal role leading to the conclusion of contracts.[67]

Consequently, a local subsidiary owning and operating the servers should constitute neither a basic nor an agency PE of the CCSP.

b. Regional Support, Sales, and Marketing

Another aspect in analyzing whether a CCSP will create PEs as a consequence of providing cloud computing as a service is whether local representatives providing customer support services as well as sales and marketing activities may constitute a basic or agency PE. Although presumably depending on the size of the cloud computing business, the importance of the local market, and the intended permanency of presence there, the CCSP's local representatives will typically be subsidiaries.

For a basic PE, it should initially be determined whether there is a fixed place of business through which the CCSP's business is wholly or partly carried on and whether the activities are of a preparatory or auxiliary character. If, for example, the CCSP carries on its business through subcontractors such as local subsidiaries, a PE will exist only if the subcontractor's employees perform the work of the CCSP at a fixed place of business that is at the CCSP's disposal.[68] Given the above analysis of server farms as a fixed place of business, and that the subsidiary's employees are typically at the subsidiary's sole disposal, subcontractors should typically not constitute a PE of the CCSP but instead be service providers entitled to arm's-length remuneration for the provision of those services.

If instead the CCSP has employees in the market jurisdictions, it should be determined whether there is a fixed place of business such as an office, or even a home office, used on a continuous basis to carry on business for the CCSP. A home office may be considered at the disposal of the CCSP if, for instance, the CCSP has not provided an otherwise needed office, taking into account the work performed by the employees.[69] If the CCSP has a place of business and the activities are carried out by CCSP employees or other persons receiving instructions from the CCSP, that will generally imply that the CCSP's business is carried on through the place of business whether or not those persons have the authority to conclude contracts.[70] Because all three cumulative conditions could be met, it should be determined whether the activities are preparatory or auxiliary.

There is no exhaustive list of preparatory or auxiliary activities, so the analysis depends on the facts and circumstances of each business model recalling that preparatory and auxiliary activities cannot be part of the essential and significant activities of the CCSP but may well contribute to its productivity.

Assuming that the marketing activities and customer support services provided by the CCSP's local employees are of a general nature — that is, not specially developed for an individual customer and based on strategies developed by the CCSP, which can also instruct and control the

[67] Para. 131 of the 2017 OECD model commentary on article 5 regarding websites hosted on servers; and Reimer, *supra* note 59, at 313.

[68] Article 5(1) and (7) of the 2017 OECD model; and para. 39 of the 2017 OECD model commentary on article 5(1).

[69] Para. 18 of the 2017 OECD model commentary on article 5(1).

[70] Para. 39 of the 2017 OECD model commentary on article 5(1).

activities performed[71] — they may be considered of an auxiliary character.[72] On the other hand, the sales-related activities are less likely to be considered auxiliary if the CCSP employees take active part in the negotiation of important parts of cloud computing contracts — for example, by participating in decisions regarding the type or quantity of cloud services provided.[73]

Further, if there is a place of business in the market jurisdiction and the marketing activities and customer support services should be considered auxiliary but the sales-related activities should not, the anti-fragmentation rule in article 5(4.1) of the 2017 OECD model most likely implies that the CCSP cannot isolate the marketing activities and customer support functions at a separate place of business and to avoid creating a PE from those services. That is because those functions should likely be considered complementary and part of a cohesive business operation — assuming that the local representatives and the CCSP are related parties as defined in article 5(8) of the 2017 OECD model.

Even if there is no basic PE because there is no place of business in the market jurisdiction, a PE may still exist if the sales-related activities are performed by dependent agents provided that the local representatives are acting for the CCSP and in doing so habitually conclude contracts in the name of the CCSP. A PE may also exist if those representatives habitually play the principal role leading to the conclusion of those contracts (beyond mere promotion or advertising) without material modification by the CCSP — for example, through websites using mostly standard agreements formulated by the CCSP.

Whether the representatives should be considered dependent agents depends on the specific facts and circumstances. However, agents should be considered dependent if they are CCSP employees or agents such as local subsidiaries performing activities exclusively or almost exclusively on behalf of the CCSP and its related parties.[74] Other indicators of dependency include the level of CCSP instruction and control, and the entrepreneurial risk assumed by the CCSP.[75]

Further, although the subjective nature of whether an agent has played the principal role has been argued to give rise to much uncertainty,[76] the representatives will most likely be considered to play the principal role leading to the conclusion of contracts if they send emails, make telephone calls, or visit potential customers to discuss the services provided and are remunerated for doing so based on the number of contracts concluded in the jurisdiction.[77] That result also seems in line with the purpose of deeming a PE based on agents, which is to cover cases in which the activities a person exercises in the market jurisdiction are intended to result in the regular conclusion of contracts to be performed by a foreign enterprise — in other words, when the person acts as the enterprise's sales force.[78] As a consequence of the amendments in 2017 model article 5(5), commissionnaire arrangements under which the dependent agent concludes contracts with customers in its own name will also generally be deemed an agency PE of the CCSP.[79]

Conversely, if the agent's economic risk profile corresponds to that of a reseller's, that is when cloud computing as a service is resold in the name of the agent and for the agent's own account, that should not result in a PE under 2017 model article 5(5).[80] Likely as a consequence of the actions taken to target commissionnaires' remote selling, commissionnaires are being converted into resellers, which should result in more functions performed, risks assumed, and assets used by the

[71] That assumption is in line with the generic description of cloud computing business models in the OECD action 1 final report, *supra* note 14, at 175-176; and 2018 interim report, *supra* note 2, at 73-79. *See also* Pistone, Nogueira, and Andrade, *supra* note 10, at 11.

[72] Paras. 71 and 128 of the 2017 OECD model commentary on article 5, stating that advertising goods or services may be preparatory or auxiliary.

[73] Para. 72 of the 2017 OECD model commentary on article 5.

[74] Para. 103 of the 2017 OECD model commentary on article 5.

[75] Para. 104 of the 2017 OECD model commentary on article 5.

[76] Dhuldhoya, *supra* note 4; and Maria Cecilia Villareal Regalado, "Treaty Abuse and Permanent Establishments: Proposed Changes to Articles 5(5) and 5(6) of the OECD MC," *Series on International Tax Law: Preventing Treaty Abuse* (2016).

[77] Para. 90 of the 2017 OECD model commentary on article 5.

[78] Para. 88 of the 2017 OECD model commentary on article 5.

[79] *Supra* note 47.

[80] Para. 96 of the 2017 OECD model commentary on article 5.

reseller and thus in more income being allocated to the reseller's state of residence.[81]

c. Local Customers

The last aspect to analyze is whether the cloud customers could constitute a PE of the CCSP. A basic PE should not be created because there will hardly be a fixed place of business at the disposal of the CCSP. Further, we would not support a finding that customer activities (enabling the collection of data) should be considered as carrying out the business of the CCSP. However, if customer activities should be considered as such, they should likely be considered of an auxiliary character. Gathering market data for the enterprise and the supply of information are activities typically considered of preparatory or auxiliary character in e-commerce.[82] Also, cloud computing business models are characterized by relatively low customer participation because the data customers store in the cloud are generally unavailable for detailed analysis by the CCSP and are typically not shared among customers.[83] Finally, customers cannot be considered agents of the CCSP because they are not acting on its behalf in any way that could be considered playing the principal role in the conclusion of contracts; hence, an agency PE cannot be created.

d. Summary of Preliminary Findings

Based on the analysis, a CCSP will create PEs only in rare situations. More specifically, server farms will create PEs only if the CCSP owns and operates the server farms. However, in practice, server farms are typically owned and operated by local subsidiaries remunerated for their services in accordance with the arm's-length principle. Those server farms will generally not be at the CCSP's disposal, although that requires a case-by-case assessment, particularly regarding the CCSP's remote and physical access to the servers, authority to instruct subsidiary employees, and compliance with the arm's-length principle.

Local representatives will generally create a basic PE of the CCSP only if CCSP employees carry out its business and some of the activities are of a non-preparatory or non-auxiliary character. Sales-related activities by a dependent commissionnaire will create an agency PE. However, in practice, the representatives may be local subsidiaries not constituting PEs of the CCSP but remunerated for their reseller services in accordance with the arm's-length principle.

Even though PEs of the CCSP are unlikely to be created, that does not mean that no tax revenue is generated in the market jurisdictions — the creation of PEs is primarily avoided by establishing local subsidiaries entitled to arm's-length remuneration. Consequently, only with remote selling — that is, customers are resident in a jurisdiction without server farms, local representatives, resellers, or CCSPs — will taxable revenue not be realized in the market jurisdiction.

B. Social Network Model

1. Overview

A business model based on the provision of a social network to users is a multisided platform that collects user data and provides advertising services.[84] It has two objectives: (1) provide an often free platform for users to connect and share content; and (2) enable customers who want to advertise on the platform to effectively reach their target audiences (users on the other side of the market), typically for various fees. As a result, those business models typically have two complementary objectives when linking users and providing advertising services: Users of the social network provide geographic, behavioral, and demographic data in the course of interacting with the network, which helps a company create targeted advertising.

From the perspective of the social network provider (SNP), its user communities are valuable because they are the means of attracting the main commercial customers: advertisers. Hence, the

[81] OECD 2018 interim report, *supra* note 2, at 95, stating that some digitalized MNEs have already started reconfiguring their trade structures based on remote sales in some countries, although not all market jurisdictions have experienced or benefited from those restructurings to the same extent. *See also* Barry Larking, "A Review of Comments on the Tax Challenges of the Digital Economy," 72(4a) *Bull. Int'l Tax'n* (2018).

[82] *Supra* note 36.

[83] OECD 2018 interim report, *supra* note 2, at 57.

[84] The description provided in the overview is based on the OECD action 1 final report, *supra* note 14, at 62-72; and 2018 interim report, *supra* note 2, at 44-50. *See also* Pistone, Nogueira, and Andrade, *supra* note 10, at 10-11.

larger the user base, the larger the value — if sufficient user data can be collected and analyzed. From the perspective of participating users, the platform's value is enhanced as new users join (at little or no cost for the SNP, thereby creating positive externalities).

The traditional business equivalent of the user side of the model could be a membership-based social club, whereas the customer side could be seen in the placement of more traditional forms of advertising, such as television or radio commercials. Figure 2 illustrates a generic business model for the provision of social networking.

Typically, the SNP is the group principal and therefore develops and owns IP, including software and algorithms, which it operates on servers worldwide and makes available to users through various client interfaces. It also remotely coordinates marketing and sales activities to regional operating lower-tier representatives to minimize costs, maintain consistency, and improve efficiency. Those representatives typically provide user support services and sales and marketing activities, although contracts with users and customers are concluded electronically through websites using mostly standard agreements whose terms are set by the principal.

2. When Is a PE Created?

a. Server Farms

The first question is whether a CCSP's servers can constitute a basic PE for the SNP when hosting services are acquired to benefit from flexibility and cost efficiency. The commentaries to article 5 of the 2017 OECD model state that data and software hosted on servers do not constitute tangible property and therefore cannot constitute a place of business.[85] Physical servers will generally not constitute a place of business at the SNP's disposal independent of whether the SNP's payment to the CCSP is based on the amount of storage capacity used, because the server and its location will typically not be at the disposal of the SNP and its users.[86]

Even if the SNP acquires private cloud computing offsite and thereby may be able to decide which specific servers the software and data should be stored on,[87] that should not create a basic PE because the servers will generally not be considered at the SNP's disposal.[88] However, when the SNP acquires private cloud computing onsite and carries on business through a website on servers at its own disposal, those servers could constitute a PE if the other PE requirements are met. Those situations should not occur often because one of the main benefits of purchasing cloud computing as a service is that the cloud customer does not in itself need the resources to operate and maintain the servers that would typically be needed for onsite private cloud computing. In sum, the servers should generally not create a basic PE of the SNP when owned and operated by a CCSP.

Some countries have taken a different position, saying a website may constitute a PE under some circumstances and that an enterprise can be said to have a place of business by virtue of hosting its website via private cloud computing.[89] However, this interpretation of the PE concept is not supported by the wording of article 5 of the OECD model nor in its commentaries.

Finally, it should be considered whether the CCSP could be regarded as a dependent agent of the SNP, which is generally not the case.[90] The CCSP will not conclude contracts or play the principal role leading to the conclusion of contracts in the name of the SNP. Also, the CCSP will act in the ordinary course of its business of providing storage capacity and infrastructure,

[85] Para. 123 of the 2017 OECD model commentary on article 5.

[86] *Supra* note 35.

[87] According to the National Institute of Standards and Technology:

> A private cloud is one in which the computing environment is operated exclusively for a single organization. It may be managed by the organization or by a third party, and may be hosted within the organization's data center or outside of it. A private cloud has the potential to give the organization greater control over the infrastructure, computational resources, and cloud consumers than can a public cloud.

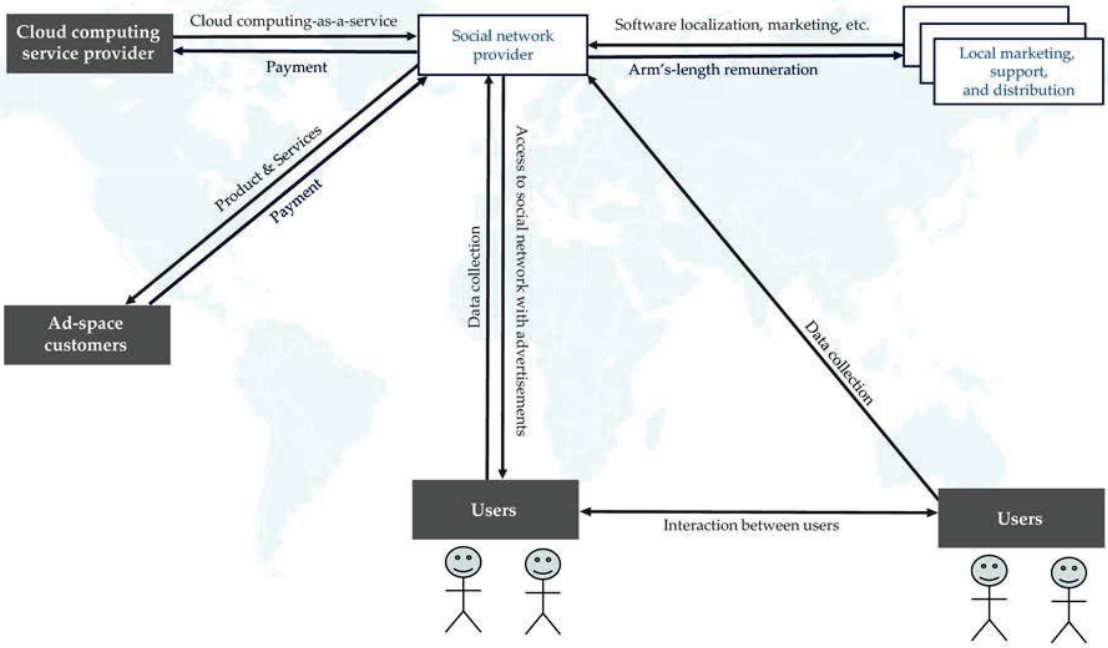
Mell and Grance, *supra* note 49.

[88] *Supra* note 35. *See also* Bal, *supra* note 61, at 519.

[89] K.K. Chythanya and Rajendra Nayak (India), "Withholding Tax in the Era of BEPS, CIVs and the Digital Economy," 103(B) *IFA Cahiers* at 305 (2018), stating that implications from the position in India's tax treaties is debatable, ranging from treating the point as irrelevant to considering it persuasive, at least for tax treaties negotiated after the position was provided.

[90] Reimer, *supra* note 59, at 313.

Figure 2. Illustration of a Social Network Business Model



which is proven by the fact that it typically serves multiple customers and thus acts as an independent agent or service provider.[91]

b. Regional Support, Sales, and Marketing

As was the case for cloud computing business models, an SNP will usually have local representatives performing various activities in the local market. However, because of the multisided nature of the business model, the activities may target either users of the social network or ad space customers.

Regardless of which activities are targeted, a basic PE is created only if there is a fixed place of business through which the SNP's business is wholly or partly carried out and if some of the activities are of a non-preparatory or non-auxiliary character. Based on an analysis similar to the one for cloud computing business models, local subsidiaries of the SNP should generally not constitute a basic PE but instead should be considered service providers of the SNP entitled to an arm's-length remuneration for the provision of those services. Further, if the SNP has employees working in the market jurisdictions, it should be determined whether there is a fixed place of business at the SNP's disposal and, if so, whether the activities carried out are preparatory or auxiliary.

That analysis should be based on a case-by-case assessment of whether the activities performed by the local representatives form an essential and significant part of the SNP as a whole.[92] That may be challenging regarding the business model deployed by the SNP, because the activities performed typically are a range of integrated services traditionally thought to be preparatory or auxiliary — that is, not directly sales-related — but now inherently belonging to the core of the SNP's business. For example, it could be necessary to distinguish between marketing activities to increase the number of users and the amount of time they spend on the platform (collecting input for the production

[91] Para. 131 of the 2017 OECD model commentary on article 5.

[92] *Supra* note 56.

function[93]) and activities targeting ad space customers (selling the output of the production function).

For activities targeting social network users, 2017 model article 5(4)(d) states that the maintenance of a fixed place of business solely to purchase goods or merchandise or collect information for the enterprise will not create a basic PE if the activity is preparatory or auxiliary to the business. It could be argued that because user data is an important SNP value driver (even when compared with other highly digital business models[94]) and inherently belongs to an SNP's core business, the marketing activities increasing the amount of collected user data should equally be regarded as core business of the SNP. However, the OECD has argued that the fact that local representatives do not conclude contracts for purchasing or collecting user data gives the activities an auxiliary character.[95]

For activities targeting ad space customers, it follows from the commentaries to article 5(4) that employees taking an active part in the negotiation of important parts of contracts for the sale of goods will usually constitute an essential part of the business operations.[96] Hence, if SNP employees do not negotiate contracts (which are typically concluded electronically through the website using generally standard agreements set by the SNP), those activities should likely be regarded as having a preparatory or auxiliary character.[97]

Similarly, support services provided by local representatives to users and ad space customers on behalf of the SNP will likely be considered auxiliary as long as they are of a general nature. Sales-related activities, however, are less likely to be considered auxiliary if SNP employees take active part in the negotiation of important parts of ad space contracts.[98]

As with CCSP local representatives, the anti-fragmentation rule in article 5(4.1) of the 2017 OECD model implies that the exemption for activities of a preparatory and auxiliary character does not apply if other activities are performed in the same jurisdiction and result in a PE — if the business activities carried on constitute complementary functions that are part of a cohesive business operation. Hence, the SNP will be unable to isolate the auxiliary marketing and support functions at a separate place of business and thereby avoid creating a PE from those activities.

Even if there is no basic PE, an agency PE of the SNP may be deemed to exist under 2017 model article 5(5). Consequently — as with CCSPs — if SNP employees or other dependent persons send emails, make telephone calls, or visit potential customers to discuss contractual ad spaces and are remunerated for doing so based on the number of contracts concluded in the jurisdiction, those employees should likely be regarded dependent agents of the SNP.[99] Similarly, dependent commissionnaires of the SNP should generally be deemed agency PEs, although resellers should not create a PE. As mentioned, it seems commissionnaires are thus being converted into resellers, which should result in more functions performed, risks assumed, and assets used in the market jurisdiction and hence in more income being allocated to the reseller's state of residence.[100]

c. Local Users and Customers

The last aspect is analyzing whether users or customers could constitute a PE of the SNP. There will hardly be a fixed place of business at the SNP's disposal, so a basic PE cannot be created.

Also, ad space customers will be carrying out their own businesses. However, an interesting yet broad interpretation of the phrase "carrying on the business of the SNP" could find that user

[93] That has been referred to as the "phenomenon of free labor," which extends from the theory of the firm formulated by Ronald Coase in *The Nature of the Firm* (1937). According to that theory, companies can choose between subcontracting to suppliers and hiring employees as input in the production function. However, an SNP may be argued to have a third option — that is, user participation generating data, which may be put back into the production function without users' monetary remuneration. *See* Pierre Collin and Nicolas Colin, *Task Force on Taxation of the Digital Economy* 49 (2013).

[94] OECD 2018 interim report, *supra* note 2, at 58.

[95] See examples in para. 68 of the 2017 OECD model commentary on article 5.

[96] *Supra* note 73.

[97] *Supra* note 72.

[98] Paras. 39 and 72 of the 2017 OECD model commentary on article 5(1).

[99] *Supra* note 77.

[100] *Supra* note 80.

activities (enabling collection of user data) should be considered. With business models based on the provision of social networks having the highest intensity of user participation[101] and with reference to the phenomenon of free labor,[102] the argument would be that users become virtual volunteer workers for the SNP by generating data that may be integrated into the production chain — thereby blurring the distinction between production and consumption. In other words, it could be said that data provided by users makes the users SNP production auxiliaries. However, even if user activities should be considered the business of the SNP, they should likely be considered of auxiliary because even though the supply of raw user data contributes to the SNP's productivity,[103] the generation of that data is so remote from the actual realization of profits that it is difficult to allocate any profit to activities performed by users.[104]

Finally, neither users nor ad space customers can be considered agents of the SNP because they are not acting on behalf of the SNP in any way that could play the principal role in the conclusion of contracts selling SNP products, so an agency PE cannot be created.

d. Summary of Preliminary Findings

Based on the analysis, an SNP will create PEs only in limited situations. More specifically, server farms owned and operated by a CCSP will generally not create a PE under 2017 model article 5 because they will not be at the SNP's disposal, and the CCSP will not act as a dependent agent of the SNP.

Local representatives will create a basic PE of the SNP only if SNP employees carry out the business, with some of the activities being of a non-preparatory or non-auxiliary character. Sales-related activities by dependent commissionnaires will create agency PEs. However, the representatives may be local subsidiaries not creating a PE but remunerated for their reseller services in accordance with the arm's-length principle.

Ad space customers and social network users in general do not constitute a basic PE because there is not a fixed place of business at the SNP's disposal. However, a broad interpretation could find that user activities could be considered as carrying out the business of the SNP, although we believe those activities should most likely be considered of an auxiliary character.

Even though PEs of the SNP are rarely created, that does not mean no tax revenue is generated in the market jurisdictions. PEs are primarily avoided by establishing local subsidiaries entitled to arm's-length remuneration. Given that the functions performed may be of a limited nature, limited remuneration is expected, which market states may perceive as being too low.

Consequently, only with remote selling will taxable revenue not be realized in the market jurisdiction — assuming payments from customers or users are not subject to local withholding tax.

C. Online Retailer Model

1. Overview

An online retailer (OR) creates value by selling goods to customers through an online store.[105] The goods sold may be tangible or intangible, so the retailer's online store can exist with or without accompanying brick-and-mortar locations. Customers typically visit the OR's language-specific website, select items to purchase, and submit the required information. Hence, on the one hand, online retail stores are used to shorten supply chains and eliminate intermediaries; on the other hand, like traditional retailers, they require high investment in advertising, customer care, and logistics (because tangible goods are shipped to customers).

The primary source of an OR's profit is the markup on goods. However, some ORs offer premium services, such as free shipping on eligible items via a subscription model (Amazon

[101] OECD 2018 interim report, *supra* note 2, at 58.

[102] Collin and Colin, *supra* note 93, at 49-54.

[103] OECD 2018 interim report, *supra* note 2, at 58.

[104] Paras. 58, 69, and 128 of the 2017 OECD model commentary on article 5.

[105] The description provided in the overview is based on the OECD action 1 final report, *supra* note 14, at 175-176; and 2018 interim report, *supra* note 2, at 60-66. *See also* Pistone, Nogueira, and Andrade, *supra* note 10, at 10.

Prime, for example). The OR might also sell customer data it collects or sell ad space targeted to customers purchasing its online products. Figure 3 illustrates a generic business model of an OR providing tangible or intangible products.

Typically, an OR is responsible for infrastructure such as organizational structure and control systems; human resources; research and development, including technological development of the platform and IT infrastructure; global marketing; and sales strategies. An OR's regional operating lower-tier representatives typically provide user support services and sales and marketing activities, although customer contracts are concluded electronically via websites using mostly standard agreements on terms set by the OR.

If an OR sells tangible products through an online store, some logistics activities will also be performed in the local markets. Inbound logistics activities could include sourcing of products and suppliers, receipt and storage of products, and the use of warehouse facilities to store inventory. Further, the logistics require the maintenance of inventory and potentially payment systems. Finally, outbound logistics requires local warehousing facilities and employees or automated processes to fulfill orders. Assembly and shipment activities are typically managed with robotic technology.

2. When Is a PE Created?

a. Server Farms

As with SNPs, the physical servers owned and operated by a CCSP should generally not constitute a basic PE for the OR because they will not constitute a place of business at the OR's disposal, independent of whether the OR's payment to the CCSP is based on the amount of storage capacity used, because they and their location will typically not be at the disposal of the OR and its users. However, if an OR acquires private onsite cloud computing and carries out business through a website on a server at its own disposal, the servers might constitute a PE if the other PE requirements are met.[106] In summary, according to the commentaries to the 2017 OECD model, the servers should generally not create a basic PE of the OR when they are owned and operated by a CCSP.

Despite that, the Turkish Supreme Administrative Court has adopted a broad legal interpretation that a website can be considered a PE when individuals earn business income by selling goods through a third-party website akin to eBay.[107] The court said a PE could be created by business activities conducted in an electronic environment via a computer or when the taxpayer operates via the internet. However, that interpretation seems to lack support in the commentaries to the 2017 OECD model.

Finally, the CCSP can be regarded as the OR's dependent agent only under unusual circumstances.[108] That is because the CCSP will not conclude contracts or play the principal role leading to the conclusion of contracts in the OR's name. Also, in the ordinary course of its business, the CCSP will provide storage capacity and infrastructure, typically for multiple users, and thus act as an independent agent or service provider.[109]

b. Regional Support, Sales, and Marketing

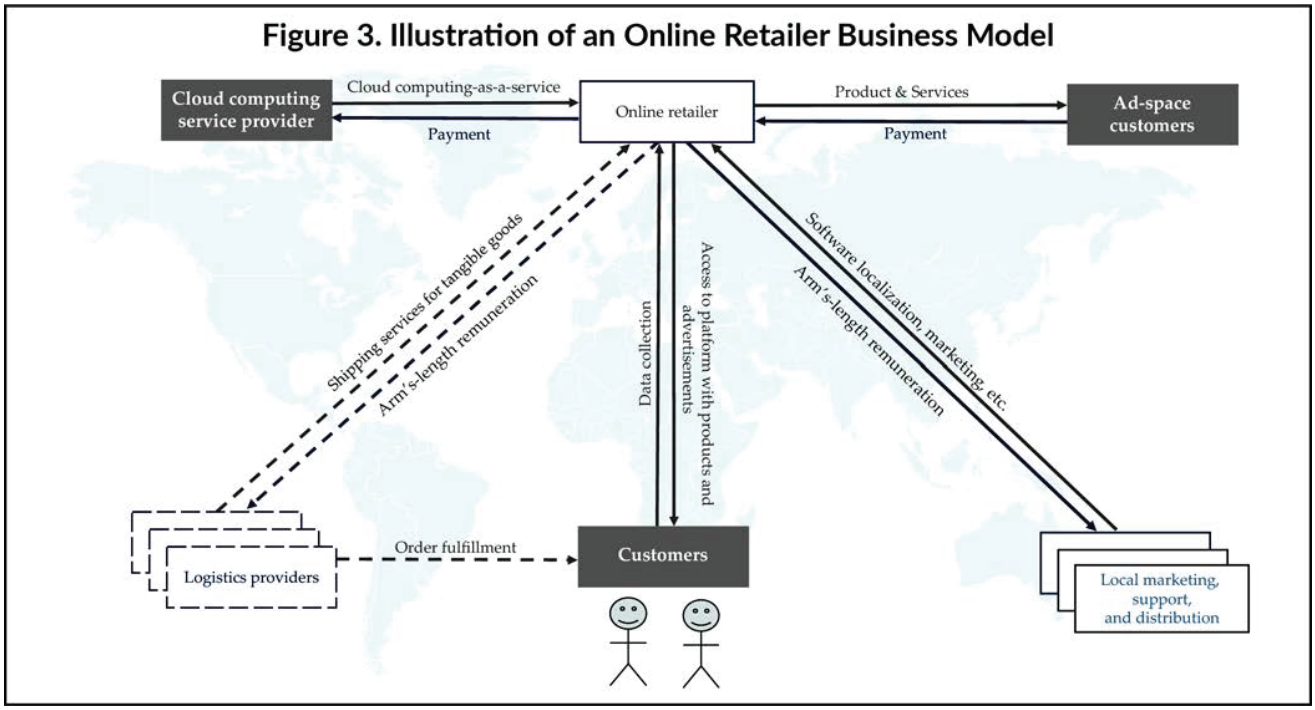
Like the cloud computing and social network models, ORs will usually have local representatives performing customer support, sales, and marketing activities in the market. That could constitute a basic PE if there is a fixed place through which the OR's business is wholly or partly carried out and if the activities are not all of a preparatory or auxiliary character. Based on an analysis similar to that for cloud computing business models, the OR's local subsidiaries generally do not constitute a PE and instead are service providers entitled to arm's-length remuneration. However, if the OR has employees in the market jurisdictions, it should be determined whether there is a fixed place of

[106] *Supra* note 88.

[107] Turkish Supreme Administrative Court, 4th Cir., E.2014/2193, K. 2017/6396 (unpublished). The issue was a matter of domestic law, so the decision's importance is unclear. Tax scholars assume that it could have an impact on the interpretation of a PE from a tax treaty perspective because the domestic concept of PE complies with the treaty definition in the OECD model. *See, e.g.*, Özgenç, *supra* note 34.

[108] Reimer, *supra* note 59, at 313.

[109] *Supra* note 91.



business at the OR's disposal and, if so, whether the activities are preparatory or auxiliary.

The analysis should be based on a case-by-case assessment of whether the activities performed by the local representatives form an essential and significant part of the OR as a whole.[110] However, assuming that the marketing activities and customer support services provided by the local employees are of a general nature and based on strategies developed by the OR, which is able to instruct and control those activities,[111] the services may be considered of an auxiliary character.[112] The sales-related activities are less likely to be considered auxiliary if OR employees take active part in the negotiation of important parts of contracts (for example, type, quality, and quantity of the product or services sold by the OR).

Again, under the anti-fragmentation rule in 2017 OECD model article 5(4.1), the exemption for preparatory and auxiliary activities does not apply if other activities are performed in the same jurisdiction and result in a PE — if the business activities carried on constitute complementary functions that are part of a cohesive business operation. Hence, the OR should be unable to isolate the auxiliary marketing and support functions at a separate place of business and thereby avoid creating a PE from those activities.

Finally, even if there is no basic PE, an agency PE may be deemed to exist if the local representatives are acting for the OR and habitually conclude contracts in the name of the OR or habitually play the principal role leading to the conclusion of contracts without material modification by the OR. Consequently — as with CCSPs and SNPs — if OR employees or other dependent persons send emails, make telephone calls, or visit potential customers to discuss ad spaces provided under the online standard contracts and are remunerated for doing so based on the amounts of contracts concluded in the jurisdiction, they should be regarded as the OR's dependent agents.[113] OR commissionnaires will generally create a PE, whereas resellers should not. Likely as a consequence, commissionnaires are being converted into resellers, which should result in more functions performed, risks

[110] *Supra* note 56.

[111] *Supra* note 71.

[112] *Supra* note 72.

[113] *Supra* note 77.

assumed, and assets used by the reseller and thus in more income being allocated to the reseller's state of residence.[114]

c. Local Logistics

In determining whether the activities related to inbound, operational, and outbound logistics will create a PE, there must be an analysis of pre- and post-implementation of the BEPS action 7 recommendations. Based on a strict literal interpretation, the activities were by definition argued to be preparatory or auxiliary before the BEPS project, but post-BEPS that is the case only if they are in fact of a preparatory or auxiliary character in the specific business model.[115] That economic substance test is illustrated by the example in the commentaries to the 2017 OECD model regarding a fixed place of business constituted by facilities used by an enterprise for storing, displaying, or delivering its own goods or merchandise. Hence, if a large warehouse where a significant number of employees work for the main purpose of storing and delivering goods owned by an enterprise that sells them online to customers in the local market, the storage and delivery activities represent an important asset that requires employees, thereby constituting an essential part of the enterprise's sale and distribution business. Those activities would therefore not be of a preparatory or auxiliary character.[116]

Conversely, the commentaries to article 5 state that a fixed place of business maintained by an enterprise solely for delivering spare parts to customers for machinery sold to those customers will be considered preparatory or auxiliary if there is no machinery maintenance or repair. Thus, what may be in the nature of preparatory or auxiliary for one business may be a core activity for another.[117]

Therefore, under the new standard, it seems fair to conclude that if the OR itself — whose business model relies on proximity and quick delivery to customers — maintains a large local warehouse to store and deliver products sold online to customers, that would constitute a basic PE for the OR.[118] The underlying argument is that ensuring fast delivery to customers by maintaining local warehouses goes beyond mere auxiliary activity because it forms a strategically decisive part of an OR's business model. That outbound logistics increasingly rely on automated processes with an extensive use of robotic technology should not alter that conclusion, because the presence of personnel is unnecessary in considering whether the OR carries out its business at a warehouse.[119]

On the contrary, if a local subsidiary provides logistics services through a warehouse on behalf of the OR for orders from local customers, that should generally not result in a basic PE because the fixed place of business will typically not be at the OR's disposal. Further, it is not the business of the OR that is carried out, but instead the business of the local subsidiary. Moreover, the activities performed at the warehouse are carried out after the contract with the customers is concluded, so the local subsidiary should not be deemed an agency PE of the OR.[120]

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[114] *Supra* note 80.

[115] Garbarino, *supra* note 47, at 368-373, analyzing the differences between pre- and post-implementation of the BEPS action 7 recommendations.

Some national courts have interpreted the exemption to include a requirement of preparatory or auxiliary character to the exemptions explicitly listed. *See, e.g.*, Tōkyō Chihō Saibansho, Gyou No. 152 (2015) regarding online retail business. The court found that the warehousing, delivery activities stemming from sales through an online store, and receipt of returned products could be said to constitute a PE of a nonresident taxpayer in the jurisdiction where the sales were made because those activities were important elements of an online retail business. The court also held that substantially all of the sales income from the business activity should be attributed to the PE because of the functional significance of the activities in Japan. For discussion, see Sagar Wagh, "The Taxation of Digital Transactions in India: The New Equalization Levy," 70(9) *Bull. Int'l Tax'n* 542 (2016).

[116] Para. 62 of the 2017 OECD model commentary on article 5.

[117] Para. 63 of the 2017 OECD model commentary on article 5.

[118] *See* Kofler et al., *supra* note 1, at 527; and Wolfgang Schön, "Ten Questions About Why and How to Tax the Digitalized Economy," 72(4/5) *Bull. Int'l Tax'n* 281-282 (2018).

[119] Para. 127 of the 2017 OECD model commentary on article 5 discusses an enterprise that operates computer equipment at a particular location; however, it also says that conclusion applies to other activities in which equipment operates automatically.

[120] See Kofler et al., *supra* note 1, at 527, stating that if the logistics are organized as local subsidiaries, the core question is shifted away from the presence of a PE to appropriate transfer pricing arrangements.

The OECD argues that because the orders for tangible products are placed by customers via a website managed by the OR, the local subsidiary is allocated minimal taxable income for the routine services provided to the OR. All revenue derived from the online sales of products are treated as OR income in the absence of a PE in the market jurisdiction to which the income is attributable. Action 1 final report, *supra* note 14, at 169.

d. Local Customers

As with the cloud computing and social network models, the final aspect is analyzing whether customers can constitute a PE of the OR. However, like the other highly digitalized business models, the OR will hardly have a fixed place of business at its disposal, so a basic PE cannot be created. Also, customers should not be considered agents of the OR because they are not acting on behalf of the OR in any way that could be considered playing the principal role in the conclusion of contracts to sell OR products or ad space. Thus, a deemed agency PE cannot be created.

e. Summary of Preliminary Findings

Based on the analysis, an OR will create PEs only in limited situations. More specifically, according to 2017 model article 5, server farms owned and operated by a CCSP should generally not create a PE because they will neither be at the OR's disposal nor act as the OR's dependent agent.

Local representatives will generally create a basic PE only if OR employees carry out the business and some of the activities are of a non-preparatory or non-auxiliary character. Sales-related activities by a dependent commissionnaire will create an agency PE of the OR. However, in practice, the representatives may be local subsidiaries not creating a PE of the OR but remunerated for their reseller services in accordance with the arm's-length principle.

Local logistics of an OR selling tangible goods will constitute a PE only if OR employees perform the activities, because those activities do not have a preparatory or auxiliary character. A local subsidiary performing the logistics services should not constitute a PE of the OR, but the subsidiary will be entitled to an arm's-length remuneration.

Even though the creation of a PE can be avoided, that does not mean that no tax revenue is generated in the market jurisdictions because the creation of PEs is primarily avoided by establishing local subsidiaries that are entitled to arm's-length remuneration. Given that the functions performed may be of a limited nature, a limited remuneration is expected, which market states may perceive as too low.

Consequently, only with remote selling will taxable revenue not be realized in the market jurisdiction — assuming the payments from customers are not subject to local withholding tax, because the customers should not create a PE of the OR.

D. Intermediary Platform Model

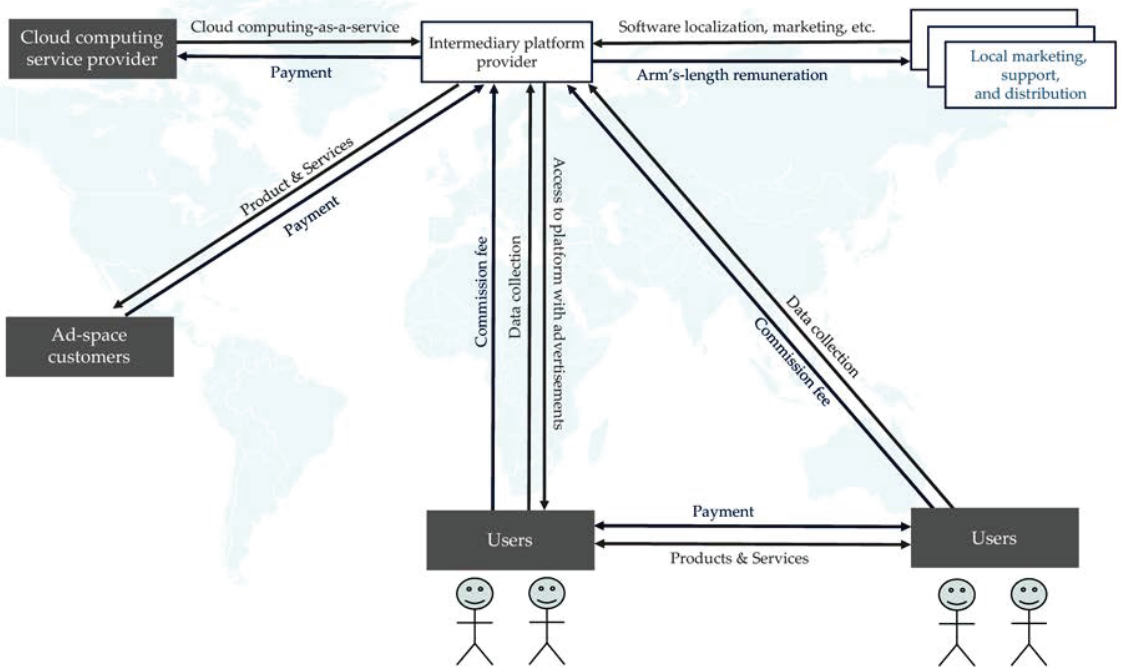
1. Overview

The business model of digitalized intermediary platforms relies on a three-party relationship among the platform, the providing users, and the buying users.[121] The platform creates value by matching end-users via mediation technology, which links users, organizes and facilitates user exchange, and ensures quality via a review system that allows users to rate the quality of the interaction. The activities performed by the intermediary platform generally include network promotion and contract management activities, such as those to invite potential users to join the network; service provisioning, such as those matching users and facilitating payments and the supply of goods and services; and network infrastructure operation activities to maintain and run a physical and information infrastructure. The main revenue sources for the intermediary platform provider (IPP) are commissions on user transactions, sales of collected user data, and online advertising. Figure 4 illustrates a generic business model for the provision of an online intermediary platform.

An IPP is typically responsible for infrastructure such as organizational structure and control systems, human resources, R&D, global marketing, and sales strategies. An IPP's regional operating lower-tier representatives typically provide user support services and sales and marketing activities, although customer and user contracts are concluded electronically via websites using mostly standard agreements on terms set by the IPP.

[121] The description provided in the overview is based on the OECD 2018 interim report, *supra* note 2, at 66-73; Pistone, Nogueira, and Andrade, *supra* note 10, at 10; and Kjærsgaard and Schmidt, *supra* note 21.

Figure 4. Illustration of an Intermediary Business Model



2. When Is a PE Created?

a. Server Farms

As with SNPs and ORs, the physical servers owned and operated by the CCSP should generally not constitute a basic PE for the IPP because they will generally not constitute a place of business at the IPP's disposal. Only in the rare situation when an IPP acquires onsite private cloud computing and carries out business through a website on a server at its own disposal will the servers constitute a PE if the other PE requirements are met.[122] According to the commentaries to the 2017 OECD model, if the CCSP owns and operates the servers, a PE of the IPP will generally not be created.

Further, it is unlikely that the CCSP could be regarded as the IPP's dependent agent[123] because the CCSP will typically not conclude contracts or play the principal role leading to the conclusion of contracts in the IPP's name. Further, the CCSP will generally serve multiple users in its ordinary course of business.[124]

b. Regional Support, Sales, and Marketing

An IPP usually has local representatives performing various activities in the local market, and like an SNP, an IPP deploys a multisided business model. The IPP relies on a three-party relationship among the platform, the providing users, and the buying users. The activities performed by local representatives may target selling users, buying users, or ad space customers.

Even so, independent of which segment the activities target, a basic PE is created only if there is a fixed place through which the IPP's business is wholly or partly carried out and if some of those activities are non-preparatory or non-auxiliary. Based on an analysis similar to that for cloud computing business models, local subsidiaries should generally not constitute a basic PE of the IPP. Instead, service providers of the IPP are entitled to arm's-length remuneration for the provision of those services. Further, if the IPP has employees in the market jurisdictions, it should be determined whether there is a fixed place of business at the IPP's disposal and, if so, whether the activities carried out are of a preparatory or auxiliary character.

That analysis should be based on a case-by-case assessment of whether the activities performed by the local representatives form an

[122] *Supra* note 88.

[123] Reimer, *supra* note 59, at 313.

[124] *Supra* note 91.

essential and significant part of the IPP as a whole.[125] As with SNPs, it could be necessary to distinguish what segment the marketing activities are targeting: (1) ad-space customers (to sell the output of the production function); (2) buying users (to increase the demand and the amount of transactions through the platform — that is, selling the output of the production function and collecting data for the production function); or (3) selling users (to increase the supply and the amount of transactions through the platform — that is, input for the production function).[126]

As with marketing activities conducted by SNP representatives, it seems likely that activities targeting users of the intermediary platform should be considered auxiliary even though user data are significant drivers of IPP value and therefore inherently part of the core of an IPP's business. The argument is that because local representatives do not conclude contracts for purchasing or collecting user data, the activities have an auxiliary character.[127] Similarly, it is likely that marketing activities targeting ad-space customers on the intermediary platform should be considered auxiliary if the IPP employees do not take part in negotiating the contracts, which are typically concluded electronically through the website using more or less standard agreements set by the IPP.[128] Likewise, support services provided by local representatives to users and customers on behalf of the IPP will likely be considered of an auxiliary character as long as they are of a general nature.[129] Sales-related activities are less likely to be considered auxiliary if IPP employees take active part in negotiating important parts of ad-space contracts.[130]

The article 5(4.1) anti-fragmentation rule again implies that the IPP cannot isolate the marketing activities and customer support functions at a separate place of business and thereby avoid creating a PE from those services if the sales-related activities are considered non-auxiliary and non-preparatory.

Even if there is no basic PE, there may be an agency PE. If IPP employees or other dependent persons send emails, make telephone calls, or visit potential customers to discuss the ad space provided under the online standard contracts and are remunerated for doing so based on the number of contracts concluded in the jurisdiction, those employees should be regarded as dependent agents of the IPP.[131] Similarly, dependent commissionnaires of the IPP should generally create an agency PE, while resellers should not. Likely as a result, commissionnaires are being converted into resellers, which should result in more functions performed, risks assumed, and assets used by the reseller and thus in more income being allocated to the reseller's state of residence.[132]

c. Local Users and Customers

Again, the last aspect in the analysis is whether users or customers constitute a PE of the IPP. The IPP will hardly have a fixed place of business at its disposal. It could be argued that special consideration should be given to the selling users because, for example, the apartment rented to users through the intermediary platform is a fixed place of business. However, because an IPP is generally only the facilitator of transactions between users,[133] it seems unlikely that the fixed place of business is at the IPP's disposal. Further, because the selling users typically cannot be considered IPP employees but instead private or self-employed individuals,[134] they are generally carrying out not IPP business but instead their own business and not the business of the IPP.[135]

[125] *Supra* note 56.

[126] OECD 2018 interim report, *supra* note 2, at 58.

[127] *Supra* note 95.

[128] *Supra* note 72.

[129] *Supra* note 70.

[130] *Supra* note 73.

[131] *Supra* note 77.

[132] *Supra* note 81.

[133] *See, e.g.*, the terms and conditions of Airbnb:

> Airbnb is not a party to any agreements entered into between hosts and guests, nor is Airbnb a real estate broker, agent or insurer. Airbnb has no control over the conduct of hosts, guests and other users of the Site, Application and Services or any accommodations, and disclaims all liability in this regard to the maximum extent permitted by law.

[134] Giorgio Beretta, "Taxation of Individuals in the Sharing Economy," 45(1) *Intertax* 5 (2017).

[135] The OECD has argued that that applies even though the words "through which" should be given a wide meaning so as to apply to any situation in which business activities are carried on at a particular location that is at the disposal of the enterprise for that purpose. *See* para. 20 of the 2017 OECD model commentary on article 5.

Further, neither users nor customers should be considered agents of the IPP because they are not acting on the IPP's behalf in any way that could be considered playing the principal role leading to the conclusion of contracts in the IPP's name or for the IPP's provision of the intermediary platform or ad spaces. Instead, users and customers pay, respectively, for using the intermediary platform facilitating the transactions and showing targeted advertisement on the platform.

d. Summary of Preliminary Findings

Based on the analysis, an IPP will create PEs only in limited situations. Server farms owned and operated by a CCSP should generally not create a PE because they will neither be at the disposal of the IPP nor act as a dependent agent of the IPP.

Local representatives will generally create a basic PE only if IPP employees carry out the business and some of the activities are of a non-preparatory or non-auxiliary character. Sales-related activities by dependent commissionnaires will create an agency PE. However, in practice, the representatives may be local subsidiaries not creating a PE but who are remunerated for their reseller services in accordance with the arm's-length principle.

Further, selling users should also not constitute a basic PE because there should not be a fixed place of business at the IPP's disposal and because the selling users are neither IPP employees nor other persons carrying out IPP business that facilitates transactions between selling and buying users. Selling users should also not be deemed an agency PE because they are not acting on behalf of the IPP but instead acquiring services provided by the IPP.

Even though the creation of PE may be avoided, that does not mean that no tax revenue is generated in the market jurisdictions because PE creation is primarily avoided by establishing local subsidiaries entitled to arm's-length remuneration. Given that the functions performed are perhaps of a limited nature, limited remuneration is expected, which may be perceived as being too low by market states.

Consequently, only with remote selling will taxable revenue not be realized in the market jurisdiction — assuming the payments from customers and users are not subject to local withholding tax.

E. Search Engine Models

1. Overview

Search engines are internet-enabled value networks that provide usually free web-based services while generating revenue from targeted advertising and other monetization of user data.[136] That type of business model has two main objectives: provide a search engine for users (usually free), and enable advertisers to effectively reach their target audiences (typically for a fee). Hence, those models typically have complementary objectives when providing information to users and providing advertising services. In other words, users of the search engine provide geographic and behavioral data, which allow the search engine provider (SEP) to learn about its user base. From the SEP's perspective, its user communities are valuable because they are the means of attracting the main commercial customers. Figure 5 illustrates a generic business model for the provision of a search engine.

Typically, the SEP is the group's principal and therefore develops and owns IP that it operates on servers worldwide and makes available to users through various client interfaces. It also remotely coordinates marketing and selling activities to regional operating lower-tier representatives to minimize costs, maintain consistency, and improve efficiency. Those representatives typically provide user support services and sales and marketing activities, although contracts with users and customers are concluded electronically via websites using basically standard agreements whose terms are set by the principal.

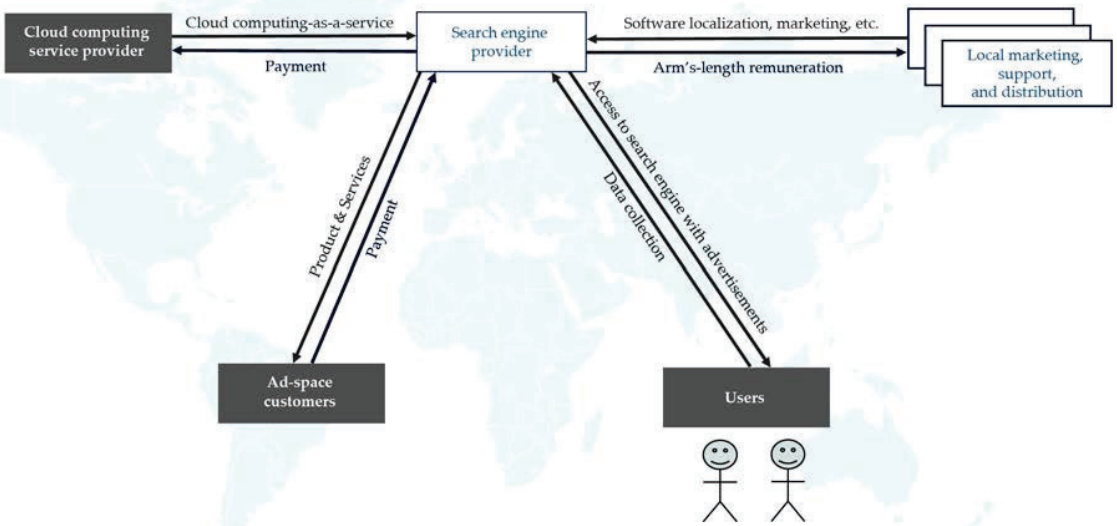
2. When Is a PE Created?

a. Server Farms

As with other business models, the physical servers owned and operated by the CCSP should generally not constitute a basic PE because they will typically not constitute a place of business at the SEP's disposal. However, only in the unusual

[136]The description provided in the overview is based on the OECD action 1 final report, *supra* note 14, at 171-173; and 2018 interim report, *supra* note 2, at 44-51.

Figure 5. Illustration of a Search Engine Business Model



situation where the SEP acquires onsite private cloud computing while carrying out business through a website on a server at its own disposal, the server may constitute a PE if the other PE requirements are met.[137]

Further, it is unlikely that the CCSP could be a dependent agent of the SEP because the CCSP generally does not conclude contracts or play the principal role leading to the conclusion of contracts in the name of the SEP and, in its ordinary course of business, the CCSP will serve multiple users.[138]

b. Regional Support, Sales, and Marketing

Like the other highly digitalized business models, a SEP will usually have local representatives performing various activities in the local market. However, because of the multisided nature of the business model, the activities may target either users or customers. Even so, those activities should not create a basic PE. Based on an analysis similar to that for cloud computing business models, local subsidiaries generally constitute service providers of the SEP entitled to arm's-length remuneration for the provision of those services. However, if the SEP has employees working in the market jurisdictions, it should be determined whether there is a fixed place of business at the SEP's disposal and, if so, whether the activities carried out are preparatory or auxiliary. Similar to SNPs, that analysis may be challenging regarding the business model deployed by SEPs, because the activities performed are typically a range of integrated services traditionally thought to be of a preparatory or auxiliary character that now belong to the core of the SEP's business.

It seems likely, however, that marketing activities targeting search engine users should be considered auxiliary even though user data are a significant SEP value driver (even when compared with other highly digitalized business models[139]) and therefore inherently belong to the core of a SEP's business. The underlying argument is that the fact that the local representatives do not conclude contracts for purchasing or collecting user data gives the activities an auxiliary character.[140]

[137] *Supra* note 88.

[138] *Supra* notes 90-91.

[139] OECD 2018 interim report, *supra* note 2, at 38 and 58, considering business models based on search engines internet-enabled value networks similar to social networks.

[140] *Supra* note 95.

Similarly, is it likely that marketing activities targeting ad-space customers should be considered auxiliary if SEP employees do not take part in the negotiation of contracts, which are typically concluded electronically via the website on the basis of mostly standard agreements set by the SEP.[141] Likewise, support services provided by local representatives to users and customers on the SEP'S behalf are likely to be considered auxiliary if they are of a general nature. Sales-related activities are less likely to be considered auxiliary if SEP employees take an active part in negotiating important parts of ad-space contracts.[142]

Once again, the anti-fragmentation rule in article 5(4.1) implies that the SEP cannot isolate the marketing activities and customer support functions at a separate place of business and thereby avoid creating a PE from those services. That is because those functions should likely be considered complementary and part of the SEP's cohesive business operation.

Finally, even if there is no basic PE, an agency PE may be deemed to exist. In that respect, national tax authorities have challenged what has been called the "Google model," which is based on a narrow interpretation of an agency PE that allowed Google to penetrate the market by using commissionnaire arrangements without creating a PE. In 2017 the Paris Administrative Court ruled that according to the applicable tax treaty, Google Ireland Ltd. did not have a PE in France between 2005 and 2010.[143] The Administrative Court of Appeal of Paris affirmed that Google Ireland did not have a PE in France through a subsidiary of Google Inc. and Google International LLC.[144]

The French entity performed support and marketing services on behalf of Google Ireland, for which it received a cost-plus 8 percent markup. The appellate court concluded that Google Ireland did not have a basic PE in France because it did not have a fixed place of business at its disposal there and the employees of the French entity were at that entity's sole disposal for its own activity and thus did not carry out the business of Google Ireland. The court also found that the French entity was a dependent agent because it provided services for Google Ireland according to instructions from the company. The services benefited only Google Ireland, and the remuneration to the French entity, which was legally and economically dependent on Google Ireland, resulted in no financial risk from its activity. However, the court said the French tax authorities failed to prove that the French entity had the authority to conclude contracts in the name of Google Ireland, even though the company merely added its signature to documents electronically.

The court of appeal based its reasoning on several factors. First, Google Ireland allowed customer advertisements to be posted online only after it reviewed and signed the contracts. Second, while internal documents from the French entity showed that its employees were recruited, trained, and remunerated for selling advertising products, the agreements concluded between the advertising agencies and the advertisers referred to the purchase of those products from the French entity. However, that did not support the assertion that the French entity's employees were able to commercially engage or commit Google Ireland on their own. Third, post-selling operations (for example, resolution of commercial or technical problems and recovery of unpaid bills) was not proof of an authority to commit Google Ireland to a commercial relationship.

The appellate decision confirms how the definition of a PE in pre-BEPS tax treaties should be interpreted and that it is difficult to apply to digital activities in the market jurisdiction. However, the treaty amendments implementing the BEPS action 7 recommendations include a broader definition of a dependent agent, which could lead to different conclusions in similar cases. If so, the Google case could be obsolete because local subsidiaries will likely be considered to habitually play the principal role leading to the conclusion of contracts without

[141] *Supra* note 72.

[142] *Supra* note 73.

[143] Case No. 15505178/1-1 (2017), *aff'd* Case No. 17PA03065 (2019).

[144] Other courts have reached similar conclusions. See, e.g., French Administrative Supreme Court, *Société Zimmer Ltd. v. Ministre de l'Économie, des Finances et de l'Industrie*, Nos. 304715, 308525 (2010), involving the France-U.K. tax treaty, which has a provision similar to that in the France-Ireland treaty.

material modification by the SEP.[145] Likely as a consequence, commissionnaires are being converted into resellers, which should result in more functions performed, risks assumed, and assets used by the reseller and thus in more income being allocated to the reseller's state of residence.[146]

c. Local Users and Customers

The final aspect of the analysis is whether users or customers can constitute a PE of the SEP. Again, because there will hardly be a fixed place of business at the SEP's disposal, a basic PE will not exist. Neither users nor customers can be considered agents of the SEP because they are not acting on the SEP's behalf in any way that could be considered playing the principal role in the conclusion of contracts selling SEP products, so an agency PE is not created.

Moreover, ad-space customers are carrying out their own business, whereas a very broad interpretation of "carrying out the business of the SEP" could find that the user activities could be considered as carrying out SEP business by making users SEP production auxiliaries. However, even if successfully making that argument, the activities should likely be considered of an auxiliary character because even though the supply of raw user data contributes to the SEP's productivity,[147] the generation of those data is so remote from the actual realization of profits that it is difficult to allocate any profit to activities performed by users.[148]

Finally, neither users nor customers can be considered SEP agents because they are not acting on behalf of the SEP in any way that could be considered playing the principal role in the conclusion of contracts selling SEP products. Hence, an agency PE is not created, either.

d. Summary of Preliminary Findings

Based on the analysis, a SEP will create PEs only in rare situations. Server farms owned and operated by a CCSP should generally not create a PE because they will neither be at the SEP's disposal nor act as a dependent agent of the SEP.

Local representatives will generally create a basic PE only if SEP employees carry out the business and some of the activities are of a non-preparatory or non-auxiliary character. Sales-related activities by dependent commissionnaire will create an agency PE, although in practice, the representatives are typically local subsidiaries not creating a PE that are instead remunerated for their reseller services in accordance with the arm's-length principle.

Search engine customers and users should not constitute a basic PE because there will not be a fixed place of business at the SEP's disposal.

Even so, that does not mean that no tax revenue is generated in the market jurisdictions because PEs are primarily avoided by establishing local subsidiaries entitled to arm's-length remuneration. Given that the functions performed may be of a limited nature, limited remuneration is expected, which market states may perceive as too low.

Consequently, only with remote selling will taxable revenue not be realized in the market jurisdiction — assuming that payments from customers or users are not subject to local withholding tax.

V. Conclusions and Perspectives

The widespread assumption that some businesses can perform activities closely linked to a jurisdiction without needing to establish a physical presence there holds true, but it also concluded that it cannot be described in a single sentence covering all business models. The topic is much more complicated and fact-dependent than seems the case when relying on the simplified assumption that highly digitalized business models can operate remotely without creating taxable nexus.

In all the business models analyzed, it is possible to conduct remote sales, although the extent to which the models require physical presence varies. More specifically, we make several findings.

First, all business models seem to rely on local regional representatives, which — depending on the size of the company, the importance of the

[145] This of course requires that the contracting states under the applicable tax treaty both apply the amended definition of agency PE to include commissionnaires and similar arrangements under article 12 in the multilateral instrument.

[146] *Supra* note 81.

[147] OECD 2018 interim report, *supra* note 2, at 58.

[148] *Supra* note 104.

local market, and the intended permanency of presence in the market — may take the form of subsidiaries not constituting PEs. However, if the principal's employees are in the market jurisdictions, a basic PE may be created because there could be a fixed place of business at the principal's disposal and it is unlikely that all the activities performed will be of a preparatory or auxiliary character. That sales-related activities are less likely to be considered auxiliary may trigger the anti-fragmentation rule if the business activities carried on by local representatives constitute complementary functions that are part of a cohesive business operation. Further, the local representatives could be deemed agency PEs if dependent persons conclude contracts in the name of the principal or play the principal role leading to the conclusion of contracts. Similarly, a dependent commissionnaire should generally be deemed an agency PE whereas a reseller should not.

Second, CCSPs and ORs selling physical goods both depend on some physical presence in market jurisdictions in the form of either server farms or warehouses. If the CCSPs or ORs themselves own and operate the server farms or warehouses respectively, that should generally create basic PEs in the market jurisdictions. To avoid that, server farms and warehouses are in practice operated by local subsidiaries.

Third, none of the highly digitalized business models analyzed should create PEs through users and customers because there will not be a fixed place of business at the principal's disposal. Further, neither users nor customers should be deemed agency PEs because they are not acting on the principal's behalf.

Consequently, all local activities (other than consumption by users and customers) will generally create a taxable presence in the market jurisdiction, and those representatives will be entitled to arm's-length remuneration. Given that the functions performed may be of a limited nature, limited remuneration should be expected, although market states may perceive that as too low. If that is the case, the discussion involves not so much nexus as profit allocation.

As illustrated, the implementation of the BEPS action 7 recommendations has affected highly digitalized business models by lowering the threshold for creating taxable presence in a market jurisdiction. More specifically, the amendments prevent a strict literal interpretation of the preparatory or auxiliary requirement for the activities listed in 2017 OECD model article 5(4) and subject the exemptions to an economic substance test based on the business model. Further, the auxiliary or preparatory exemption is limited by the anti-fragmentation rule applicable to complementary functions that are part of a cohesive business operation performed by related parties in the same jurisdiction. Also, the implementation of the action 7 recommendations could prevent a strict literal interpretation of dependent agents who habitually exercise the authority to conclude contracts in the name of, or binding on, the principal, thus limiting the authority of dependent persons who play the principal role leading to the conclusion of contracts. Finally, the use of dependent commissionnaire arrangements now constitutes a deemed agency PE.

Even though the implementation of the BEPS action 7 recommendations has extended the taxing rights of market jurisdictions, what seems apparent from the analysis is that neither a basic nor agency PE can exist without some degree of physical presence. However, remote selling does not occur exclusively through the highly digitalized business models analyzed in this article, and — to our knowledge — no empirical studies on the quantity or proportion of jurisdictions exposed to remote selling have been conducted.[149] Even so, the striking consensus in the current debate on the international taxation of the digitalized economy is that the international tax regime needs to be reshaped. As expressed by Wolfgang Schön regarding whether the digitalization of the economy requires an update of the international tax rules:

> This is not a self-evident truth. Tax law, like any area of the law, is meant to express long-term value judgments and political agreements that have been transformed into legislative language. These norms show a general character and can be

[149] Olbert and Spengel, *supra* note 9, at 5-6, stating that to the best of their knowledge, empirical evidence regarding the tax challenges of the digitalized economy is scarce, and that anecdotes cannot justify new tax rules for that economy.

> applied to new facts irrespective of changes in the real world, whether these are changes in technology or changes in the way business is done. One can refer to the age-old concepts of Roman law on warranties for deficient goods irrespective of whether these are sold in a village market or over the Internet. Legal regimes, unlike consumer software, do not need a regular update per se as technology and business progress. Rather, one needs a specific policy argument to amend the law, including tax law.[150]

The specific policy argument regarding why the international tax regime must be reshaped may be simply expressed as "too little business income from cross-border sales or services being taxed in market jurisdictions."[151] However, because remote selling is not exclusive to highly digitalized business models, the fundamental principle of neutrality[152] seems to be violated if special rules are imposed on companies deploying highly digitalized business models. Further, there is a varying need for physical presence even among those models, so rules targeting them generally could also violate the principle of neutrality. ■

[150] Schön, *supra* note 118, at 278.

[151] The three proposals in the OECD February 2019 consultation document would all expand the taxing rights of user or market jurisdictions. *See supra* note 3, at 9; and OECD statement, *supra* note 6, at 8.

[152] The principle of neutrality means that taxation should seek to be neutral and equitable between different forms of digitalized business models, as well as between traditional and digitalized business models. The intention is that business decisions should be motivated by economic rather than tax considerations. Consequently, taxpayers in similar situations carrying out similar transactions should be subject to similar levels of taxation. This principle forms part of the Ottawa Taxation Framework Conditions as adopted by the OECD, "Implementation of the Ottawa Taxation Framework Conditions," at 12 (2003).

ARTICLE

The Ability to Pay and Economic Allegiance: Justifying Additional Allocation of Taxing Rights to Market States

Louise Fjord Kjærsgaard*

The OECD/G20 Inclusive Framework and the UN are working intensively on how to change the allocation of taxing rights to cross border income and to adapt the international tax regime to the digitalization of the economy. A stated aim is that more taxing rights should be allocated to the market states. However, during the process it has become clear that it remains uncertain why the allocation of taxing rights should be changed. In this article, it is argued that the allocation should continue to be justified by the principle of economic allegiance in accordance with the ability of the MNEs to pay taxes. On this basis, it is analysed whether the following three measures are justifiable: the new nexus under the Pillar One Blueprint, the inclusion of software in the definition of royalties in the UN Model Tax Convention and the implementation of a shared taxing right for automated digital services in the UN Model Tax Convention.

Keywords: Allocation of taxing rights, ability to pay principle, economic allegiance, single tax principle, Inclusive Framework, Pillar One Blueprint, OECD Model Tax Convention, UN proposals on shared taxing rights, UN Model Tax Convention, Automated Digital Services

1 Introduction

The past decade has featured a growth of broad public and political attention in the field of international taxation and has given rise to the involvement of new critical actors as well as legal scholars around the world.[1] The increasing interest in the current international tax regime is arguably a result of multiple factors, including an increase in the globalization and inherent cross-border transactions inter alia facilitated by the digitalization of the economy. In addition, the aftermath of the financial crisis and the Covid-19 pandemic have implied an increase in the need for governments to finance their public spending.[2] Finally, a series of large-scale leaks exposed to the public, e.g., the so-called LuxLeaks, Panama Papers, and Paradise Papers, are all contributing factors to the increase in attention that has resulted in persistent criticisms arguing that the international tax system must be changed.[3] Further, it has been contended that the stability of the principles for allocating taxing rights is challenged by the dramatic evolution of the economy as a result of its digitalization. Accordingly, it has become a widely repeated opinion that the digitalization of the economy enables monetization in new ways that raise questions regarding the rationale behind existing principles for allocating the taxing rights as market states are alleged to often being left with no or limited revenue to tax.[4]

Notes

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1 In addition to medias around the world, the new critical actors also include, e.g., NGOs such as Oxfam and ActionAid, whereas a few examples of the established legal scholars engaging in the debate on international taxation and increased digitalization of the economy are W. Schön, *Ten Questions About Why and How to Tax the Digitalized Economy*, 72(4/5) Bull. Int'l Tax'n. 278 et seq. (2018); E. C. C. M. Kemmeren, *Should the Taxation of the Digital Economy Really Be Different?,* 27(2) EC Tax Rev. 72 et seq. (2018); M. Olbert & C. Spengel, *International Taxation in the Digital Economy: Challenge Accepted?,* 9 World Tax J. 1, 3 et seq. (2017), and the same authors in M. Olbert & C. Spengel, *Taxation in the Digital Economy – Recent Policy Developments and the Question of Value Creation*, 2 IBFD Int'l Tax Stud. 3 (2019), G. Kofler, G. Mayr & C. Schlager, *Taxation of the Digital Economy: 'Quick Fixes' or Long-Term Solution?,* 57(12) Eur. Tax'n 523 et seq. (2017); M. de Wilde, *Preface in Sharing the Pie: Taxing Multinationals in a Global Market* (IBFD 2017), and the same author in M. de Wilde, *'Sharing the Pie': Taxing Multinationals in a Global Market*, 43(6/7) Intertax 438 et seq. (2015), and M. de Wilde, *Comparing Tax Policy Responses for the Digitalizing Economy: Fold or All-in*, 46(6/7) Intertax 466 et seq. (2018); X. Li, *A Potential Legal Rationale for Taxing Rights of Market Jurisdictions*, 13(1) World Tax J 26 et seq. (2021); J. Li, *The Legal Challenges of Creating a Global Tax Regime with the OECD Pillar One Blueprint*, 72(2) Bull. Int'l Tax'n. 84 et seq. (2021).

2 P. Saint-Amans, *The Reform of the International Tax System: State of Affairs*, 49(4) Intertax 309 et seq. (2021).

3 *See* e.g., OECD, *Addressing the Tax Challenges of the Digitalisation of the Economy – Policy Note*, OECD/G20 Base Erosion and Profit Shifting Project 2–3 (OECD Publishing 2019).

4 *See* e.g., OECD, *Challenges Arising from Digitalisation – Report on Pillar One Blueprint*, OECD/G20 Base Erosion and Profit Shifting Project 11 (OECD Publishing 2020) United Nations, Committee of Experts on International Cooperation in Tax Matters, *Report on the Twenty-First Session* E/C.18/2020/CRP.41 (Virtual Session – 20-29 Oct. 2020), [hereinafter: Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41)], 6 and United Nations, Committee of Experts on International Cooperation in Tax Matters, *Note by the Subcommittee on the UN Model Tax Convention, Update of the UN Model Double Taxation Convention Between Developed and Developing Countries – Inclusion of software payments in the Definition of Royalties*, E/C.18/2020/CRP.38 (7 Oct. 2020) [hereinafter: Committee – Inclusion of software payments in the definition of royalties (E/C.18/2020/CRP.38)], 2.

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The continued work of the OECD/G20 Inclusive Framework (hereinafter: IF), following after the OECD/G20's final report on Action 1 *Addressing the Tax Challenges of the Digital economy*[5] is expected to result in a final report – currently expected in mid-2021.[6] Further, other supranational organizations such as the EU and the UN have worked on measures to address the perceived challenges arising from the digitalization of the economy.[7] What appears to be apparent from the contemplated international proposals is a lack of common understanding and agreement on *why* it is fair that market states should have the right to tax more revenue that is generated from the provision of digital products and services.[8] Instead, the focus seems to be on finding a common agreement on *how* market states should be allocated such a right.[9]

On this basis, it is the intention with this article to contribute to the ongoing debate on the current international tax regime by providing a principle-based legal rationale for *why* it is fair that market states should be allocated additional taxing rights. As further elaborated in the analysis, the principle of economic allegiance is arguably the underlying principle for allocating taxing rights under the OECD Model (2017) and should plausibly also be the justification for allocating additional taxing right to market states. The reason for focusing on the underlying tax principles of the current international tax system is to strive for one coherent tax system and because it seems less realistic that any fundamental changes to the international tax systems may find consensus from contracting states around the world.[10] Another and more practical argument for focusing on these principles are because these principles have proven to be (relatively) operational in practice and are well-known by practitioners of international tax law. Lastly, the application of the same principles arguably limits the risks of any foreseen and unforeseen adverse consequences from the interaction between existing rules and potential new rules. Accordingly, even though it is acknowledged that a fundamental redesign of the entire international tax regime could potentially be preferable from a more theoretical perspective, in this article it is discussed whether a principle-based rationale for recalibrating the international tax regime can be derived from the principles underlying the current regime.

The reason behind searching for a principle-based rationale is to increase the likelihood that a potential consensus-based solution on allocation of additional taxing rights to market states will stand the test of time.[11] This should be considered regarding the ever-evolving digitalization of the economy and that any amendments with a narrow scope targeting highly digitalized businesses that are currently perceived to be undertaxed,[12] will not necessarily provide an appropriate measure for business models that are of the future.

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[5] OECD, *Addressing the Tax Challenges of the Digital Economy, Action 1–2015: Final Report*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing 2015).

[6] *See* OECD, *Report on Pillar One Blueprint, supra* n. 4, at 9, and Saint-Amans, *supra* n. 2, at 309.

[7] On 21 Mar. 2018, the European Commission proposed new rules to ensure that digital business activities are taxed in a fair and growth-friendly manner in the EU, i.e., a 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. The UN has published the following two discussion drafts *Committee – Art. 12 B on Automated Digital Services* (E/C.18/2020/CRP.41), *supra* n. 4, and *Committee – Inclusion of Software Payments in the Definition of Royalties* (E/C.18/2020/CRP.38), *supra* n. 4.

[8] Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4, at 29 and Committee – Inclusion of software payments in the definition of royalties (E/C.18/2020/CRP.38)], *supra* n. 4, at 6–7; and comments from commentators in the Pillar One Blueprint have criticized that the precise policy aim, and the scope remains ambiguous. This was also acknowledged by a representative of the OECD on the virtual meeting on the Pillar One Blueprint 14 Jan. 2021. OECD Public Consultation Meeting on the Pillar One Blueprint (14 Jan. 2021), https://www.oecd.org/tax/beps/public-consultation-meeting-reports-on-the-pillar-one-and-pillar-two-blueprints.htm (accessed 18 May 2021). The representative reasoned the insufficient clarity with the lack of consensus among members of the IF. See also Saint-Amans, *supra* n. 2.

[9] *See also* X. Li, *supra* n. 1, at 27.

[10] While focus within this article is the underlying principle of the current international tax system, some legal scholars have suggested that the system should be fundamentally changed e.g., to a so-called destination-based system; *see* e.g., D. Shaviro, *Goodbye to All That? A Requiem for the Destination-Based Cash Flow Tax*, 72(4) Bull. Int'l Tax'n 248 et seq. (2018); M. Devereux & R. de la Feria, *Designing and Implementing a Destination-Based Corporate Tax* WP 14/07 (2014) (for discussion purposes only). A unitary tax system has also been considered; *see* e.g., S. Picciotto, *Towards Unitary Taxation,* in *Global Tax Fairness* (T. Pogge & K. Mehta eds Oxford University Press 2016) Published to Oxford Scholarship; M. F. de Wilde, *Some Thoughts on a Fair Allocation of Corporate Tax in a Globalizing Economy*, 38(5) Intertax 289 and 290 (2010). However, as Ivan Ozai notes: '*Even if,* e.g., *a unitary tax system based on formulary apportionment might provide a more efficient and fair solution to the taxation of multinational enterprises, the costs of a complete overhaul of a long-established system make it hard for such a solution to be implemented, as path dependence theory suggests. Replacing the increasingly criticized separate-entity system, arm's length principle, and transfer pricing methods by a unitary tax system would require overcoming the lock-in effect over the tax treaty network, as it would ultimately require renegotiating many of the existing treaties*'. I. Ozai, *Institutional and Structural Legitimacy Deficits in the International Tax Regime*, 12(1) World Tax J. 67 (2020). Considering the proposals presented by influential institutions, a more fundamental change to the international tax system does not seem to have political support. Finally, som authors argue that any solution addressing the challenges brought by digitalization should be completely detached from the current international tax system; *see* e.g., S. Greil & T. Eisgruber, *Taxing the Digital Economy: A Case Study on the Unified Approach*, 49(1) Intertax 53 et seq. (2021).

[11] Somewhat similar argument is presented by Li, *supra* n. 1, at 27.

[12] *See* e.g., PwC as member firm, in co-operation with the Center for European Economic Research (ZEW), *Digital Tax Index 2017: Locational Tax Attractiveness for Digital Business Models* (2017). Reference to the findings were e.g., made by the European Commission, *A Fair and Efficient Tax System in the European Union for the Digital Single Market*, COM(2017) 547 final (21 Sept. 2017), at 2 and 5. Against this understanding, it has been argued that the perceived under-taxation is a result of significant R&D investment and preferential R&D regimes; *see* e.g., X. Li, *supra* n. 1, at 36-38; S. Deschsakulthorn, K. Glenn, S. Boon Law, & J. A. Myszka, *Treatment of Losses Under OECD Pillars 1 and 2*, Tax Notes Int'l 325–326 (20 July 2020).

On the contrary, industry-based and facts-specific rules will likely imply that new additional rules or amendments will be necessary in the future and, taking the current struggles of coming to a consensus-based agreement into account, such a solution should arguably not be the aim. *(see section 2).*

Based on the established legal rationale for *why* market states should be allocated taxing rights, it will then be analysed whether some of the most significant currently proposed measures may be justified based on a modernized interpretation of the principle of economic allegiance. Further, the capability of these measures to actually allocate tax revenue to the market states will be considered. More specifically, the following three measures will be subject to analysis: *(1)* The contemplated new taxing right considered by the IF under the Pillar One Blueprint; *(2)* The discussion drafts for including software payments in the definition of royalties in the UN Model, and *(3)* the inclusion of a separate provision on income from automated digital services in the UN Model. The choice of measures is based on their current state of development, their contemporary political momentum in the debate on amending the international tax regime, and their common and thereby comparable aim of allocating more tax revenue to the market states.[13] The aim is to assess whether the contemplated measures can be justified according to the principle of economic allegiance. *(see* section 3*).*

Finally, the last section of the article will summarize the main conclusion and discuss wider perspectives on the findings *(see* section 4*).*

2 Understanding the current allocation principles

One of the challenges of establishing a principle-based rationale for why the digitalization of the economy implies that market states should be allocated more taxing rights under the international tax regime is that there is no such thing as international tax law.[14] Under the current international tax regime, the tax liability of a taxpayer is determined by the domestic tax law of individual jurisdictions. Tax liability established under domestic tax law may be modified by applicable tax treaties that have a long history of being a measure to limit double taxation of cross-border income. This double taxation occurs from the friction that arises between worldwide taxation and source taxation in two or more jurisdictions exercising their sovereignty to impose tax on the same income. On this basis, analysing the international tax regime will often imply an analysis of tax treaties.[15] This approach is also taken in this article when analysing the underlying principles of the current international tax regime. However, given the number of bilateral tax treaties, these will be represented by the OECD Model (2017) and its principles for allocating taxing rights.[16] Further, to analyse whether the principle of economic allegiance can justify allocation of more taxing rights to market states in a digitalized economy, the substantive meaning of the principle should be analysed – not only as formulated in its historical context but also considering the features of the digitalization of the economy.

The choice of principle to govern the international competence in taxation was founded on the theoretical

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[13] Due to the well-described harmful effects of what is typically referred to as digital services taxes targeted at highly digitalized businesses – especially with respect to their applicability under tax treaties as well as the fundamental principle of ability to pay tax – these are not considered a viable and recommendable solution. Consequently, such measures will not be subject to analysis in this article. For literature on digital services taxes targeted at highly digitalized businesses, *see* e.g., D. Stevanato, *A Critical Review of Italy's Digital Services Tax*, 74(7) Bull. Int'l Tax'n. 413 et seq. (2020) and the same author in D. Stevanato, *Are Turnover-Based Taxes a Suitable Way to Target Business Profits?,* 59(11) Eur. Tax'n 538 et seq. (2019); J. F. Pinto Nogueira, *The Compatibility of the EU Digital Services Tax with EU and WTO Law: Requiem Aeternam Donate Nascenti Tributo*, 2 Int'l Tax Stud. 1 (2019); R. Ismer and C. Jescheck, *Taxes on Digital Services and the Substantive Scope of Application of Tax Treaties: Pushing the Boundaries of Article 2 of the OECD Model?,* 46(6&7) Intertax, 573 et seq. (2018); J. Becker & J. Englisch, *EU Digital Services Tax: A Populist and Flawed Proposal*, Kluwer International Tax Blog (16 Mar. 2018), http://kluwertaxblog.com/2018/03/16/eu-digital-services-tax-populist-flawed-proposal/ (accessed 18 May 2021); H. S. Næss-Schmidt, M. H. Thelle, B. Basalisco, P. Sørensen & B. Modvig Lumby, *The Proposed EU Digital Services Tax: Effects on Welfare, Growth and Revenues*, Copenhagen Economics (Sept. 2018); A. Wanyana Oguttu, *A Critique from a Developing Country Perspective of the Proposals to Tax the Digital Economy*, 12 World Tax J. 4 (2020), at 3. OECD, *Tax Challenges Arising from Digitalisation – Economic Impact Assessment*, Inclusive Framework on BEPS, 23 (OECD Publishing 2020); Kemmeren, *see supra* n. 1, at 73; L. Fjord Kjærsgaard & P. Koerver Schmidt, *Allocation of the Right to Tax Income from Digital Intermediary Platforms – Challenges and Possibilities for Taxation in the Jurisdiction of the User*, Nordic J. Commercial L. 1, 166 (2018).

[14] *See* e.g., J. Li, *supra* n. 1, at 93.

[15] See K. Vogel, *Worldwide v. Source Taxation of Income a Review and Re-evaluation of Arguments (Part I)*, 16(8/9) Intertax 216 et seq. (1988); E. C. C. M. Kemmeren, *Source of Income in Globalizing Economies: Overview of the Issues and a Plea for an Origin-Based Approach*, 60(11) Bull. Int'l Tax'n. 438–441 (2006). P. Koerver Schmidt, *The Emergence of Denmark's Tax Treaty Network – A Historical View,* Nordic Tax J.1, 49–52 (2018). S. Buriak, *A New Taxing Right for the Market Jurisdiction: Where Are the Limits?*, 48(3) Intertax 305 (2020), The reliance upon tax treaties has also been subject to criticism; see e.g., P. Harris, *International Commercial Tax* 22 (2nd ed., Oxford University Press 2020). The author argues that model tax treaties are 'reactionary, customary and, at their worst, a historical accident'. Further, the author contends that, as tax treaties are not based on conceptual structure but are built on political compromise, they do not deal with tax issues arising from international dealings but only matters when agreements can be reached.

[16] Although the OECD Model has not been ratified, it has been the predominant model for negotiating bilateral tax treaties, which as a consequence, principally contain similar policies and even language. The OECD Model has not only been used as a reference in negotiations of bilateral tax treaties between OECD members but also between OECD members and non-members and even between non-members as well as in the work of other worldwide or regional international organizations such as the UN Model which reproduces a significant part of the provisions and Commentaries of the OECD Model. *See also* C. H. Lee, & J.-H. Yoon, *General Report,* in *Withholding Tax in the Era of BEPS, CIVs and the Digital Economy*, IFA Cahiers vol. 103B, 23 (IFA 2018), where it is stated that many countries adhere to the OECD Model to a certain extent, although the allocation of taxing rights over royalties typically differs, i.e., it implies shared taxing rights similar to Art. 12 of the UN Model. *See also* J. Sasseville & A. A. Skaar, *General Report,* in *Is There a Permanent Establishment?* IFA Cahiers vol. 94A 23 (IFA, 2009); P. Baker, *Double Taxation Agreements and International Tax Law: A Manual on the OECD Model Double Taxation Convention (1977)*, 2 (Sweet and Maxwell 1991); OECD Model (2017): Commentaries to the Introduction, para. 14; C. Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary* 3 (Edward Elgar 2016).

work conducted by four economists appointed by the League of Nations in the early 1920s, delivering the *Report on Double Taxation* on 5 April 1923.[17] The economists held that the basis for designing the international tax framework should be that:

> '*A part of the total sum paid according to* ***the ability of a person*** *ought to reach the competing authorities according to* ***his economic interest*** *under each authority*'.(author's emphasis).[18]

Hence, the economists viewed the ability to pay principle as the most appropriate reason and measure for taxation. It is recognized in this article that the ability to pay principle does not enjoy universal support, inter alia due to its lack of attention to collecting revenue for the services provided by governments (typically considered one of the goals of taxes[19]). Further, it has been argued that the link between a taxpayer's taxable ability and the enjoyment of public services provided by the government is too remote.[20] However, despite this criticism, it has been argued that the ability to pay principle is widely endorsed in contemporary doctrine.[21]

Other principles for justifying and measuring taxation may be found inter alia in the older exchange theory that argues that taxation should be based on a social contract and on exchange between the government and the individuals or businesses.[22] Typically, the exchange theory will be based on either the cost principle (i.e., taxing in accordance with the costs incurred by the government in providing the services) or the benefit principle (i.e., taxing in conformity with the particular benefits received by the individual or business).[23] However, in this article it is argued that the challenges previously criticized in the international tax literature of relying on the benefit and cost principle makes them less preferrable. An example would be the challenges of determining the individual utility of the benefits received by a taxpayer. Further, there is a correlation that those who are the least capable of helping themselves are those to whom the protection and support of government typically has the highest value. However, they do not necessarily have the ability to pay according to the benefit or cost principle. Further, the (socialistic and egalitarian) concept of distributive justice through taxation – considered one of the goals of taxation[24] – is not achieved under the benefit or cost principle.[25] Due to the emphasized inadequacies, these principles will not be relied on in the following analysis.

Instead, while recognizing that the ability to pay principle as explained also has certain weaknesses, the ability to pay principle is relied upon in this article. This also seems to be in accordance with the findings of the four economists who argued that the ability to pay principle as a tax equity standard, arguably based on considerations of social solidarity and social redistribution, has supplanted the exchange theory.[26] The ability to pay principle as a reason and measure for taxation implies that the tax burden should be proportionate to the capacity of the taxpayer.[27] This understanding of

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[17] *See e.g.*, G. W. J. Bruins, L. Einaudi, E. R. A. Seligman & J. Stamp, *Report on Double Taxation*, submitted to the Financial Committee Economic and Financial, Document E. F.S. 73. F.19 (5 Apr. 1923). The report has previously been subject to analysis in the international tax literature, *see* e.g., D. H. Rosenbloom & S. Langbein, *United States Tax Treaty Policy: An Overview*, 19 Colum. J. Transnat'l L. 359 361–364 (1981); P. Hongler, *Justice in International Tax Law* 117–119 (IBFD 2019); H. J. Ault, *Corporate Integration, Tax Treaties and the Division of the International Tax Base: Principles and Practices*, 47 Tax L. Rev. 565–566 (1992); Kemmeren *supra* n. 15, at 431–438 and Li *supra* n. 1, at 45-46.

[18] *See* Bruins et al., *supra* n. 17, at 20.

[19] *See* e.g., R. S. Avi-Yonah, *The Three Goals of Taxation*, 60(1) Tax L. Rev. 1–28 (2016).

[20] *See* e.g., F. Debelva, *Fairness and International Taxation: Star-Crossed Lovers?,* 10 World Tax J. 4, 570–571 (2018); Li *supra* n. 1, at 13.

[21] *See* e.g., Bruins et al., *supra* n. 17, at 18, W. Schön, *International Tax Coordination for a Second-Best World (Part I)*, 1(1) World Tax J. 71–72 (2009); F. Debelva, *supra* n. 20, at 570; Li, *supra* n. 1, at 44; M. F. de Wilde, *The Obligation to Contribute to the Financing of Public Expenditure,* in *Sharing the Pie: Taxing Multinationals in a Global Market* (IBFD 2017), s. 2.2.2.1. For a thorough analysis on the ability to pay principle, refer to J. Clifton Fleming, R. J. Peroni & S. E. Shay, *Fairness in International Taxation: The Ability-to-Pay Case for Taxing Worldwide Income*, 5(4) Fla. Tax Rev. 301–356 (2001) with references and M. S. Kendrick, *Ability-to-Pay Theory of Taxation*, 29(1) Am. Econ. Rev. 92–101 (1939). Slade argues that the ability to pay principle is justified by the sacrifice of taxpayers to the government which is linked to the concept of diminishing marginal utility of income and wealth that have given rise to several theories of progressive taxation, e.g., the equal (taxes should sacrifice all taxpayers equally), the equal-proportional (sacrifice of taxpayers should be in equal proportion to their incomes), and the least-sacrifice theories (taxes should first be levied on the incomes of the very rich; when reduced to the level of the rich, all the rich should be taxed; when reduced to the level of persons with modest means, all the persons with modest means should be taxed, etc.).

[22] *See* e.g., Bruins et al., *supra* n. 17, at 18. Since then, the international tax literature on the exchange theory and its underlying principles has become significant. For a more extensive analysis of the theories reference may be had to, e.g., Schön, *supra* n. 21, at 73–78 with references; Debelva, *supra* n. 20, at 569–577 with references.

[23] *See* e.g., Schön, *supra* n. 21, at 75; Debelva, *supra* n. 20, at 570; Li, *supra* n. 1, at 42-43; De Wilde, *supra* 21, E. Escribano López, *The Renaissance of the Benefit Principle for the 21th Century International Tax Reform*, Kluwer International Tax Blog (30 Jan. 2020), http://kluwertaxblog.com/2020/01/30/the-renaissance-of-the-benefit-principle-for-the-21th-century-international-tax-reform/ (accessed 18 May 2021).

[24] *See* e.g., Avi-Yonah, *supra* n. 19.

[25] *See* e.g., Schön, *supra* n. 21, at 75; Debelva, *supra* n. 20, at 570.

[26] *See* Bruins et al., *supra* n. 17, at 18.

[27] *See* e.g., J. Englisch, *Ability to Pay,* in *Principles of Law: Function, Status and Impact in EU Tax Law* (C. Brokelind ed., IBFD 2014); Schön, *supra* n. 21, at 71–75; Debelva, *supra* n. 20; Li, *supra* n. 1, at 44 and De Wilde, *supra* n. 21.

the ability to pay principle is also argued to incorporate the single-tax principle, i.e., that equity requires that business income is taxed only once.[28] Otherwise stated:

> *Income should be taxed only once, as close as possible to its source (as any economic activity that is taxed more than once will be discouraged while those that are not taxed will be favoured. This is both unfair and inefficient. Double taxation distorts costs and prices, interferes with production decisions).*[29]

The single-tax principle was also implicitly noted by the four economists, as they considered the ideal solution to be that the individual's entire ability should be taxed, but that it should be taxed only once.[30]

However, as also noted by the four economists, the ability to pay principle incorporating the single-tax principle does not traditionally deal with *where* taxes should be paid. Stated differently, the principle does not solve the problem of international double taxation and inter-nation equity on a stand-alone basis,[31] meaning a fair sharing of revenue from the taxation of cross-border income.[32] Notably, in this context the benefit and cost-principles arguably contain the same weaknesses in their traditional forms.[33]

The four economists concluded that the solution to *where* taxing rights to a business' ability should be allocated was to be found in the 'economic interest' of a taxpayer which should be understood as economic allegiance. Hence it is explicitly stated that:

> *The problem consists in ascertaining where the true economic interests of the individual are found. It is only after an analysis of the constituent elements of this economic allegiance that we shall be able to determine where a person ought to be taxed or how the division ought to be made as between the various sovereignties that impose the tax.*[34]

The group of economists identified the following four factors that comprise economic allegiance:[35]

1. The origin of income, i.e., all the places where the income is created or produced.
2. Situs of income, i.e., the physical location where the result of the creation or production of income is to be found.
3. The place of enforcement of the legal rights to the income.
4. The place of residence or domicile of the person entitled to consumption, appropriation or disposition of the income.

Among these four factors, the greatest weight should be given to *(1)* origin and *(4)* residence, whereas *(2)* situs and *(3)* enforcement primarily should be of importance if reinforcing the factors of origin or domicile.[36]

Origin refers to the 'production of wealth' defined as '*all the stages up to the point when the physical production has reached a complete economic destination and can be acquired as wealth*'.[37] This includes an assessment of the original physical appearance of the wealth, its subsequent physical adaptations, its transport, its direction, and its sale.[38] Although wealth and wealth production are obviously of enormous importance and are also concepts that often explicitly or implicitly are referred to in the current

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[28] *See* e.g., R. S. Avi-Yonah, *Tax Competition, Tax Arbitrage and the International Tax Regime*, 61 Bull. Int'l Tax'n. 130, 133–134 (2007); Schön, *supra* n. 21, at 73. Schön explains that under the ability to pay principle, allocation rules should be framed in a way which is meant to prevent over taxation of this income. For a thorough analysis of the 'single-tax principle' *see* e.g., *Single Taxation?* (J. Wheeler eds, IBFD 2018) and E. Gil García, *The Single Tax Principle: Fiction or Reality in a Non-Comprehensive International Tax Regime?,* 11(3) World Tax J. 305–346 (2019).

[29] *See* De Wilde *supra* n. 21.

[30] *See* Bruins et al., *supra* n. 17, at 20; Gil García, *supra* n. 28, at 315.

[31] In this article, inter-nation equity is only mentioned in order to emphasize that the key issue is one among states rather than of among taxpayers, i.e., inter-individual equity. *See* similarly, Li, *supra* n. 1, at 41. The author also discusses how this interpretation of inter-nation and inter-individual equity differs from the work of R. A. Musgrave & P. B. Musgrave, *Inter-nation Equity*, in *Modern Fiscal Issues: Essays in Honour of Carl S. Shoup* (R. M. Bird & J. G. Head eds, University of Toronto Press 1972).

[32] *See* Wolfgang Schön argues that while the relevance of the ability to pay principle for the shaping of an international tax order is ambiguous and controversial, it will often provide a common framework for countries when it comes to measurement of the tax basis. In other words, Schön finds that while the ability to pay helps to define the cake it does not help to slice it. Schön, *supra* n. 21, at 72–73. Somewhat similar, Filip Debelva contends that even though it is clear that the ability to pay principle and the benefit principle were primarily designed for being applied in a domestic context and have been subject to criticism, their influence on international tax rules cannot be denied. Debelva, *supra* n. 20.

[33] *See* Bruins et al., *supra* n. 17, at 20. Recently, Xiaorong Li has argued that the benefit principle is the optimal principle for justifying the allocation of taxing rights to market states, although in a revised form. *See* Li, *supra* n. 1, at 50. According to Li, the revised benefit principle views benefits as '*a proportional scale for the purpose of comparing claims of taxing rights among jurisdictions. It is also important to emphasize here that what is being compared is not the benefits conferred to different businesses by the same state, but the contribution of final profits of the same business by various states*'. Thus, Li's revised benefit principle also seems to include elements of the ability to pay principle as competing authorities can only make a claim based on contributions to the 'final profit', i.e., contracting states can only make claims on the ability of the business.

[34] *See* Bruins et al., *supra* n. 17, at 20. It is noted that other legal scholars seem to interpret 'economic interest' in the 1923 report, as an implicit reference to the benefit principle. *See* Kemmeren, *supra* n. 15, at 431. *See also* Q. Cai, F. Wu & X. Li, *The New Taxing Right and Its Scope Limitations: A Theoretical Reflection,* 49(3) Intertax 213–215 (2021).

[35] *See* Bruins et al., *supra* n. 17, at 22–27.

[36] *Ibid.,* at 25.

[37] *Ibid.,* at 23.

[38] See also Vogel, *supra* n. 15, at 223. The author states that: '*source is unambiguously in what it excludes: taxation based on "source" is different from taxation based on residence or on citizenship. The only positive statement that can be made on the other hand is that "source" refers to a state that in some way or other is connected to the production of the income in question, to the state where value is added to a good*'.

debate on international taxation,[39] there is no commonly accepted definition and no unanimous way for businesses to create wealth.[40] However, in recent international tax literature the following description of wealth has been suggested:

> *'Wealth is considered as an accumulation of valuable economic resources that can be measured in terms of either real goods or monetary value or, for business purposes, as goods and services produced by a business that have an exchange value in the market.* … [Exchange value] *refers to an attribute of an item or service produced which indicates its ability to be exchanged on the market and as the price of a product realized at a single point in time when the exchange of it took place'.*[41]

The four economists advocated that the right to tax should generally be allocated between the places of origin (i.e., source states) and the residence state depending on the nature of the wealth. When the majority of the elements comprising economic allegiance coincide with one state, it should have the exclusive right to tax. When factors are conflicting, the right to tax should, in principle, be shared between the states based on the relative economic ties between the taxpayer, the income and the relevant states.[42]

2.1 *Economic Allegiance of Business Profit*

With respect to general business profits, the four economists did not consider such income as a separate category of income as in Article 7 of the OECD Model (2017). Instead, they considered business profits under specific types of undertakings currently typically described as 'brick and mortar'.[43] With respect to commercial establishments with a fixed location, i.e., with a main or head office in a particular place, the four economists concluded that regarding 'origin', the influence of sales and the existence of many selling agencies or branches were of *outstanding significanc*e, implying that allocating income between the various sources of income would be of *commanding importance*. Further, it was stated that while the commercial manager would perform most of the effective work on the spot or at the head office in most cases, there were many exceptions; already at that point in time, control at a distance was far more possible than before. This is something that has become even more apparent with the development and enhancement of the information and communication technology.[44] However, because the 'situs' of a commercial business (with its nexus and environment of workers and their dwellings) could be more easily moved than a factory and obviously than mines and oil wells, the importance of 'domicile' would be relatively greater, i.e., because of the personal element in the matter of 'origin'.

Nonetheless, the group of economists concluded that the places where income was created or produced, i.e., the places of origin, were of preponderant weight and in an ideal division a preponderant share should be assigned to the place of origin. Hence, with respect to the allocation of the right to tax business profits, greatest importance should be given to the nexus understood as an identifiable connection, between business profits and the places contributing to the creation and production of wealth.[45]

When considering business profit under the OECD Model, the source state has been identified as the state where a PE is situated. While the report from 1923 did not contain a clear definition of a PE concept, it seems reasonable to argue that the PE-concept as it is currently known under Article 5 of the OECD Model (2017) encompasses the principles stated in the report back in 1923.[46] More specifically, the definition of a PE under Article 5 (1) of the OECD Model (2017) implies that it is created if the following three cumulative conditions are satisfied:

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[39] In the current debate on international taxation and the allocation of taxing rights 'value' and 'value creation' are concepts that are typically mentioned; *see* e.g., OECD, *Tax Challenges Arising from Digitalisation –2018 Interim Report*, Inclusive Framework on BEPS (OECD publishing 2018), Ch. 2 Digitalization, business models and value creation, J. Becker & J. Englisch, *Taxing Where Value Is Created: What's 'User Involvement' Got to Do with It?,* 47 Intertax 2 (2019); Buriak, *supra* n. 15, at 304–306, A. J. Martín Jiménez, *Value Creation: A Guiding Light for the Interpretation of Tax Treaties?,* 74(4/5) Bull. Int'l Tax'n. 197 et seq. (2020); W. Haslehner & M. Lamensch eds, *Taxation and Value Creation*, EATLP International Tax Series vol. 19 (IBFD 2021)).

[40] *See* e.g., Becker & Englisch, *supra* n. 39, at 163–165.

[41] *See* Buriak, *supra* n. 15, at 304 and 306.

[42] For practical reasons, the four economists ended up recommending a general exemption in the source state for all 'income going abroad' to avoid double taxation. Bruins et al., *supra* n. 17, at 51. However, apparently too controversial, the League of Nation adopted the Classification and Assignment of Income method; *see also* OECD, *Action 1–2015: Final Report, supra* n. 5, at 25.

[43] *See* Bruins et al., *see supra* n. 17, at 27–31; OECD, *Action 1–2015: Final Report, supra* n. 5, at 25.

[44] *See* e.g., OECD, *Action 1–2015: Final Report, supra* n. 5, Ch. 3 Information and communication technology and its impact on the economy.

[45] *See* Bruins et al., *supra* n. 17, at 31. *See also* Kemmeren, *supra* n. 15, at 432.

[46] See e.g., J. F. Avery Jones, et al., *The Origins of the Concepts and Expressions Used in the OECD Model and Their Adoption by States*, 60(6) Bull. Int'l Tax'n. 233 and 234 (2006); F. Otegui Pita, *Article 5 – The Concept of Permanent Establishment,* in *History of Tax Treaties, The Relevance of the OECD Documents for the Interpretation of Tax Treaty* 237 (T. Ecker & G. Ressler eds, Linde 2011). The author finds that the term 'permanent establishment' or 'Beriebsstätte' derives from Prussian non-tax law from the nineteenth century. Further, for tax treaty purposes, the term was first used in the tax treaty between Austria/Hungary and Prussia (1899). Further, permanent establishment was used in a model in the first League of Nations Draft (1927/1928), the Model Convention of Mexico (1943), London (1946) and finally, the OECD included the term in its first Draft of a Double Taxation Convention on Income and Capital in 1963. E. Melzerova, *Article. 5 – Dependent Agent Permanent Establishment,* in *History of Tax Treaties, The Relevance of the OECD Documents for the Interpretation of Tax Treaty* 261 and 262 (T. Ecker & G. Ressler eds, Linde 2011). The author contends that, while the 1923 report did not result in a practical and 'ready-to-be-used' definition of a PE, the report brought an in-depth analysis of the cornerstones of international taxation and identified common treaty practice thus far. To summarize, the author finds that the report at least inspired the direction of thinking of other international tax standard-setters, e.g., the OECD.

- *Firstly*, there must be a place of business, i.e., for instance, premises, facilities, installations, machinery or equipment, at the disposal of the enterprise.[47] Arguably this reflects a condition for a specific and identifiable 'stage' in the production of wealth as described in the 1923 report. Further, as it is required that such a place of business should be tangible, it may be argued that under the PE concept as it is defined in the OECD Model (2017), it is required that the factor of physical location, i.e., 'situs' should reinforce the place of origin.[48]
- *Secondly*, the place of business must be fixed – for time and geographical purposes.[49] Again, it is argued that this condition requires that the 'situs' to some extent must reinforce the place of origin. Further, it may be reasoned that the production of wealth generally requires a certain duration to be distinguished from the mere realization of wealth and that this is reflected by the requirement for the place of business to be fixed for a certain period of time.[50]
- *Thirdly*, the business of the enterprise must wholly or partly be carried out through the fixed place of business,[51] i.e., usually (although not necessarily) by persons who, in one way or another, are dependent on the enterprise conducting the business of the enterprise through the fixed place of business.[52] It is argued that this condition aims at reflecting that the 'production' of wealth was generally considered to require capital and human resources as opposed to wealth that is merely realized in a non-residence country.[53]

Additionally, it may be argued that the Agency PE under Article 5 (5) and (6) of the OECD Model (2017), reflects the understanding that human interactions of a certain magnitude may constitute a specific and identifiable stage of the wealth production process, even when this is not reinforced by a fixed physical place of business at the disposal of the enterprise.[54]

Summarizing the above, the four economists considered economic allegiance - in the context of business profit - primarily understood as the place of origin and wealth production, as the appropriate justification for allocating taxing rights. Further, it is argued in this article that there is a link between a sufficient level of economic – and physical – presence under the existing PE-threshold and the economic allegiance factors developed by the group of economists almost a century ago. Hence, when aiming at one coherent international tax regime, any amendments resulting in the allocation of taxing rights to market states should similarly be justified by the ability (to pay) of MNEs being created in the market states.

Accordingly, while 'fairness' in taxation does not have one commonly accepted definition,[55] for the purpose of the analysis conducted in this article, equity – and thereby *why* market states should be allocated taxing rights – will be understood as an international tax system that allocates a proportion of the MNE's ability to the jurisdictions where this proportion of the ability (to pay) is created without risking international double taxation or double non-taxation of the taxpayer.[56]

2.2 *Challenges from the Digitalization*

In recent years, the applicability of the current definition of a PE in Article 5 of the OECD Model (2017) has been questioned in the digitalized age because of

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47 *See* OECD Model (2017): Commentaries to Art. 5(1), paras 6, 10–19 and in respect of 'e-commerce', paras 122–131.

48 *See* OECD, *First Report of the WP 1 on the Concept of Permanent Establishment FC/WP1 (56)*, 1 (17 Sept. 1956). Here, the emphasis is made on the 'fixed place of business' or as stated by Federico Otegui Pita a 'distinct situs', *see* Otegui Pita, *supra* n. 46, at 240. *See also* Kemmeren, *supra* n. 15, at 432–433. Kemmeren argues that the principles of source and origin should be identical in respect of income taxes (although this may not always be the case) and, further, that source (origin) is an elaboration of the principle of location of wealth 'situs'. For a somewhat different view *see* e.g., P. Hongler & P. Pistone, *Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy*, Working Paper 21 (2015). The authors argue that the requirement of physical presence should merely be seen as a result of the benefit theory being developed and implemented into the OECD Model at a time when neither the digital world nor computers existed, i.e., only physical benefits could occur such as streets, public transport, police.

49 *See* OECD Model (2017): Commentaries to Art. 5(1), paras 6, 21–34 and 44 and in respect of 'e-commerce', paras 122–131.

50 *See also* Otegui Pita *supra* n. 46, at 242 and Buriak, *supra* n. 15, at 306.

51 *See* Federico Otegui Pita *see supra* n. 46, at 240 and 244. Pita discusses the amendment of the words 'in which' that was amended to 'through which'. There seems to be two understandings of this amendment: (i) Those who believe that the replacement does not imply important changes, *see* e.g., IFA Cahiers vol. 94a (2009), *supra* n. 16, at 43, K. Vogel, *Vogel on Double Taxation on Double Taxation Conventions* 288 (3d ed., Kluwer Law International 1997). (ii) Those who believe that the replacement has broadened the scope, *see* e.g., R. Urban Schmidt, *Permanent Establishment. A Domestic Taxation, Bilateral Tax Treaty and OECD Perspective* 60 and 61 (Wolters Kluwer: Law and Business 2012).

52 *See* OECD Model (2017): Commentaries to Art. 5(1), paras 6, 35–41 and in respect of 'e-commerce' paras 122–131.

53 *See also* Buriak *supra* n. 15, at 306 and Kemmeren, *supra* n. 15, at 434.

54 *See* Bruins et al., *supra* n. 17, at 30.

55 See e.g., Debelva *supra* n. 20, at 565–567; P. Koerver Schmidt, *The Role of the Anti-Tax Avoidance Directive in Restoring Fairness and Ensuring Sustainability of the International Tax Framework – A Legal Assessment*, in *Tax Sustainability in an EU and International Context – Part Four: BEPS and Sustainability Goals* (C. Brokelind & S. Thiel eds, IBFD 2020); J. J. Burgers & I. J Valderrama, *Fairness: A Dire International Tax Standard with No Meaning?,* 45(12) Intertax 767–782 (2017): J. Li, supra n. 1, at 91: X. Li, supra n. 1, at 40.

56 *See also* K. Vogel, *The Justification for Taxation: A Forgotten Question?,* 33(2) Am. J. Jurisprudence 19 et seq. (1988), Schön, *supra* n. 21, at 71. Schön argues that it is the traditional legal wisdom that the principles of how to allocate taxing rights internationally somehow should reflect the justification to tax in a domestic setting including the ability to pay principle. Debelva, *supra* n. 20, at 581.

its inherent physical presence requirement.[57] It has been argued that the gap between the legal concept of a PE under the OECD Model and the economic substance has been increasing with the development of new intangible sources of wealth production and income generation, reliance on users and of new digitalized business models with the ability to cross-jurisdictional scale without mass.[58] The latter refer to highly digitalized businesses being capable of engaging in the economic life of a jurisdiction without any (or any significant) physical presence.[59] While this may appear to be correct, this perception has previously been questioned in the international tax literature. More specifically, it has been argued that, if there is indeed no 'mass' at all, i.e., no physical presence, it will be difficult to claim that a business is heavily involved in the economic life of a specific jurisdiction, since tax jurisdictions are divided by physical borders. Further, it has been claimed that:

> *even the most highly digitalized businesses cannot penetrate into the economic life of a faraway country without at least telecommunication infrastructures (such as submarine cables and signal towers), terminals or devices to transmit digital information (such as computers and cellphones), and senders and receivers of such digital information (such as users or customers in the targeted country).*[60]

Accepting that some physical presence is a prerequisite for operating in a market, it is argued in this article that it is the requirement of having a fixed physical place of business 'at the disposal' of the enterprise that creates the gap between the legal concept of a PE under the OECD Model (2017) and the economic substance of highly digitalized businesses. The requirement of 'disposal' has previously, e.g., in the context of physical servers been interpreted as exercising control over the servers as if, in fact, an individual or busienss is the owner or operator of the server.[61] Based on such an interpretation of 'disposal', it seems unlikely that the cited physical presence will be considered at the disposal of MNEs as the necessary infrastructure is now usually provided as a service or made available by the customer/user.

The role of users in some highly digitalized businesses that heavily rely on users and include significant amounts of user data in production of digital products and services have been referred to as the 'phenomenon of free labor' or 'prosumers'.[62] This feature has been argued to extend the 'Theory of the Firm' formulated by Ronald Coase in *The Nature of the Firm* dating back to 1937. According to the Theory of the Firm, companies can choose between subcontracting to suppliers and hiring employees as input in the production function.[63] This also seems to be the understanding within the commentaries to Article 5 of the OECD Model (2017), as only employees and other persons under the instruction of the business as well as subcontractors can conduct the business of an enterprise[64] – if personnel are in fact required to carry on the specific business activities at that location.[65]

However, as stated some highly digitalized businesses appear to have a third option: active user participation generating user data that may be put back into the production function potentially without users receiving monetary remuneration.[66] According to this argument, the use of customers and users located in market states as a resource or an input factor in the provision of products and services may imply that the traditional line between production and consumption is indistinct. In respect of wealth production, only recurring activity of users which are used by the MNEs for business purposes

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[57] *See* e.g., Hongler & Pistone, *supra* n. 48, at 14; and M. P. Devereux & J. Vella, *Implications of Digitalization for International Corporate Tax Reform*, WP 17/07, at 25 (July 2017). Notably other views have been presented in the international tax literature, e.g., Li, *supra* n. 1, at 29. Li argues that the gap is caused by the minimal need for personnel to carry on and manage business operations. While the author of the present article agrees that a limited need for personnel may imply limited profit to market states (as no/limited decision-making functions on the control of risk will be present in market jurisdiction), the lack of personnel should not prevent the creation of a PE pursuant to OECD Model (2017): Commentaries to Art. 5, para. 127: *'The presence of personnel is not necessary to consider that an enterprise wholly or partly carries on its business at a location when no personnel are in fact required to carry on business activities at that location'.*

[58] *See* Buriak, *supra* n. 15, at 307, Becker & Englisch, *supra* n. 39, at 162; Hongler & Pistone, *supra* n. 48, at 18–19.

[59] See e.g., OECD, 2018 Interim Report, *supra* n. 39, at 51–52 and OECD, *Report on Pillar One Blueprint*, *supra* n. 4, at 24.

[60] *See* Li, *supra* n. 1, at 29.

[61] *See* J. Bundgaard & L. Fjord Kjærsgaard, *Taxable Presence and Highly Digitalized Business Model*, 97(9) Tax Notes Int'l 986–987 (2020) based on interpretation of commentaries and danish, Swedish and Canadian case law.

[62] *See* e.g., Pierre Collin & Nicolas Colin, *Task Force on Taxation of the Digital Economy*, Report to the Minister for the Economy and Finance, the Minister for Industrial Recovery, the Minister Delegate for the Budget and the Minister Delegate for Small and Medium-Sized Enterprises, Innovation and the Digital Economy 49 (2013). They refer to users generating data, i.e., put back into the production chain – blurring the dividing line between production and consumption, as 'free labour'; Johannes Becker & Englisch, *supra* n. 39, at 166–170; R. Petruzzi & S. Buriak, *Addressing the Tax Challenges of the Digitalization of the Economy: A Possible Answer in the Proper Application of the Transfer Pricing Rules?,* 72(4a) Bull. Int'l Tax'n. (2018). The authors refer to users generating data as 'unconscious employees'. Y. Brauner & P. Pistone, *Some Comments on the Attribution of Profits to the Digital Permanent Establishment*, 72(4a) Bull. Int'l Tax'n. 2 (2018). The authors argue that, if the role of users becomes that of active customers, at least a portion of the income realized should be allocated to the country of the users.

[63] This also seems to be the assumption for Kemmeren who argues that income is produce only if a person utilizes the production factors of labour and potentially capital, further, that the taxation of income should be linked with this utilization. Kemmeren, *supra* n. 15, at 431.

[64] *See* OECD Model (2017): Commentaries to Art. 5 (1), paras 39 and 40.

[65] *See* OECD Model (2017): Commentaries to Art. 5 (1), paras 41 and 127.

[66] *See* e.g., Collin & Colin, *supra* n. 62; Bundgaard & Fjord Kjærsgaard, *supra* n. 61, at 993.

as part of the value creation process within the MNE can constitute a stage in the wealth production. Notably, this situation should be distinguished from the situation in which businesses only use customers as a (consumption) market where income is realized.[67]

Based on the perceived gap between the concept of PE under the OECD Model (2017) and economic substance of highly digitalized businesses and the arguments that the current allocation of taxing rights is founded on the principle of economic allegiance, it could be questioned whether this principle is capable of justifying allocation of more taxing rights to market states. A critical argument would be that this principle is already applied and is perceived to result in too little tax revenue being allocated to the market states.

While this may be correct if the understanding of the principle of economic allegiance remains static in its historical context, it is reasoned in this article that a more modern interpretation of the factors comprising economic allegiance may justify that additional taxing rights are allocated to the market states. Accordingly, if a business produces wealth in a market state, it should pay an apportioned part of its ability to this market state – even when it does not have a 'traditional' fixed physical place of business 'at its disposal' through which 'traditional' personnel carries out the business of the MNE. This also seems to find some support in the 1923 report where it is explicitly stated that:

> *The true economic location is to be distinguished from the physical location, usually termed situs. Frequently, of course, these coincide. But in the case of many classes of wealth the temporary situs may be quite distinct from the true economic location. … Physical situs is of importance in economic allegiance only to the extent that it reinforces economic location.*[68]

Modernizing the requirement of physical presence under the definition of a PE also seems somewhat in accordance with the observed tendency through previous amendments to the commentaries to Article 5 of the OECD Model, i.e., the requirement for the situs to reinforce origin has been eased over the years.[69]

The remainder of this article will be focused on whether the measures currently contemplated by the IF and the UN may be justified based on the principle of economic allegiance.

3 Solutions proposed to tackle the digitalization

Based on the perception that market states are left with too little revenue to tax under the current international tax regime, the continued work following the OECD/G20 BEPS Project – currently postponed until mid-2021[70] – has been eagerly awaited. Further, other supranational and international organizations such as the EU and the UN have proposed different measures.[71] Nonetheless, some countries have been of the opinion that there is an urgent need for allocating more tax revenue to the market states and considered, proposed or even implemented (interim) measures targeting digitalized businesses.[72] While the right to implement unilateral measures may be justified by states' sovereignty within taxation and tax competition, it is argued that a fragmented network of unilateral measures is not preferred. In the absence of a consensus-based approach, an increase of (fragmented) unilateral measures should be expected.[73] This will likely increase the practical and economic harmful effects from fragmented international taxation as well as causal negative consequences and in a worst-case scenario, trade wars.[74] Against this background, only international measures that are currently being considered and aiming for international political consensus will be analysed in the next subsections.

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[67] *See also* Buriak, *supra* n. 15, at 307 and Becker & Englisch, *supra* n. 39, at 167–169. On the other hand, Klaus Vogel seems to argue that there is no valid objection against a claim of the sales state to tax part of the sales income as income received from sales would not have been earned without the market they provide, *see* Vogel, *supra* n. 15, at 400–401.

[68] *See* Bruins et al., *supra* n. 17, at 24–25.

[69] *See* e.g., V. Dhuldhoya, *The Future of the Permanent Establishment Concept*, 72(4a) Bull. Int'l Tax'n. 12 (2018) and Bundgaard & Fjord Kjærsgaard, *supra* n. 61, at 980. The authors all argue that the commentary additions of the so-called painter example and provisions on e-commerce and optional service PE, as well as the implementation of BEPS action 7 on preventing the artificial avoidance of PE status, all seem to lower the threshold for when source taxation can be established through a PE.

[70] See OECD, *Report on Pillar One Blueprint*, *supra* n. 4, at 7.

[71] On 21 Mar. 2018, the European Commission proposed new rules to ensure that digital business activities are taxed in a fair and growth-friendly manner in the EU, i.e., a 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. The UN has published the following two discussion drafts *Committee – Art. 12 B on Automated Digital Services* (E/C.18/2020/CRP.41), *supra* n. 4, and *Committee – Inclusion of Software Payments in the Definition of Royalties* (E/C.18/2020/CRP.38)], *supra* n. 4.

[72] More than thirty countries have introduced some kind on unilateral measure, *see* Saint-Amans, *supra* n. 2, at 310. *See also* Wanyana Oguttu, *supra* n. 13. Oguttu discusses a number of the implemented unilateral measures.

[73] OECD, *Economic Impact Assessment, supra* n. 13, at 23. Raising concern that a number of states consider unilateral measures will refrain from introducing them if a multilateral consensus-based solution is reached. Conversely, it should be expected that these states will proceed with introducing unilateral measures if no multilateral consensus-based solution is reached also implying that an escalation of related trade tensions would follow.

[74] OECD, *Economic Impact Assessment, supra* n. 13. Reserving the inherent uncertainties of such a counterfactual scenario it is estimated that the negative effect on global GDP could reach up to 1.2% corresponding to worst-case scenario, i.e., trade retaliation factors going up to five times beyond proportional.

3.1 *The OECD/G20 Inclusive Framework: Pillar One Blueprint*

The continued work on addressing the perceived tax challenges arising from the digitalization of the economy has resulted in a number of reports, public consultations, and a programmes of work – the latest publication being the *Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint* published on 14 October 2020.[75] However, a common agreement has at the time of writing this article not been reached and it is still uncertain whether consensus will be reached.[76]

In general, Pillar One aims to expand the taxing rights of market states when an MNE has an 'active' and 'sustained' participation in the economy of that jurisdiction through activities in, or remotely directed at that jurisdiction.[77] In this context, market states are jurisdictions where an MNE sells its products or services and, in the case of highly digitalized businesses,[78] where an MNE provides services to users or solicits and collects data or content contributions from users.[79] It seems that the underlying perception is that an active and engaged user base may create value for MNEs deploying certain business models,[80] however, there is no clearly articulated justification for *why* such active and sustained (value creating) activity should justify the allocation of a new taxing right. As discussed above, in this article, it is argued that the justification for allocating taxing rights to a market state should be based on a proportion of the MNE's ability to pay taxes that are being created in that market state. Accordingly, it is argued that only if the contemplated rules under the Pillar One Blueprint identify stages in the value creation process of in-scope MNEs (e.g., from recurring content-generating activity of users that are utilized by the MNEs for business purposes) are the contemplated rules justifiable. Given the focus on highly digitalized business model, the below analyses will in particularly focus on the provision of automated digital services.

3.1.1 *A New Taxing Right to Market States*

The scope of the new taxing right to 'Amount A' is based on an 'activity test' and a 'threshold test'.[81] The latter is intended as the primary indicator of a significant engagement in the market state as well as to minimize compliance costs of MNEs and keep the administration of the potential new rules manageable for tax administrations. It would likely include a revenue threshold (e.g., 750 mEUR as it is known from the CbCR) based on annual consolidated group revenue in the consolidated financial statement.[82] It is estimated that the number of in-scope MNEs after applying a global revenue threshold on 750 mEUR is 8,000 worldwide.[83] Further, it is contemplated to couple the global revenue threshold with a de minimis foreign in-scope revenue threshold and to ensure that smaller economies also can benefit from the new taxing

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[75] OECD, 2018 Interim Report, *supra* n. 39; OECD, Policy Note, *supra* n. 3; OECD, *Public Consultation Document Addressing the Tax Challenges of the Digitalisation of the Economy,* 13 feb. – 6 Mar. 2019, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing 2019); OECD, Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing 2019); OECD, Public consultation document Secretariat Proposal for a 'Unified Approach' under Pillar One 9 Oct. 2019–12 nov. 2019, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing 2019); OECD, Public consultation document Global Anti-Base Erosion Proposal ('globe') – Pillar Two, 8 nov. 2019–2 dec. 2019, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing 2019); 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, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing 2019); OECD, *Report on Pillar One Blueprint*, *supra* n. 4; OECD, Public Consultation Meetings - Reports on the Pillar One and Pillar Two Blueprints 14–15 Jan. 2021 (2021). The Pillar One Blueprint is also discussed by A. P. Dourado, *The OECD Report on Pillar One Blueprint and Article 12B in the UN Report,* 49(1) Intertax 3 et seq. (2021); Greil & Eisgruber, *supra* n. 10; Li, supra n. 1. On the Kluwer International Tax Blog, the following blogs has been posted: H. Van den Hurk, *OECD's Pillar One and the Return of the Pencil!* (2 feb. 2021), http://kluwertaxblog.com/2021/02/22/oecds-pillar-one-and-the-return-of-the-pencil/ (accessed 18 May 2021); G. Sparidis, J.-W. Kunen & B. Middelburg, *Digital Economy Taxation Developments: A Marker for the Future of Taxes (Part 2),* (5 feb. 2021), http://kluwertaxblog.com/2021/02/05/digital-economy-taxation-developments-a-marker-for-the-future-of-taxes-part-2/?Print=print (accessed 18 May 2021); D. Frescurato & Velio Alessandro Moretti, *The Carve-out of Financial Services from Pillar One: Good Times for a Step Further?* (23 nov. 2020), http://kluwertaxblog.com/2020/11/23/the-carve-out-of-financial-services-from-pillar-one-good-times-for-a-step-further/ (accessed 18 May 2021); V. Chand & D. Canapa, *Pillar 1 of the Digital Debate: Its Consistency with the Value Creation Standard as Well as the Way Forward,* (24 nov. 2020), http://kluwertaxblog.com/2020/11/24/pillar-i-of-the-digital-debate-its-consistency-with-the-value-creation-standard-as-well-as-the-way-forward/ (accessed 18 May 2021); W. Byrnes, *Recommendations for the Pillar One and Pillar Two Blueprints* (18 dec. 2020), http://kluwertaxblog.com/2020/12/18/recommendations-for-the-pillar-one-and-pillar-two-blueprints/ (accessed 18 May 2021).

[76] *See* OECD, *Report on Pillar One Blueprint, supra* n. 4, at 8 and 10. This was also confirmed by the OECD at the OECD Public Consultation Meeting on the Pillar One Blueprint, *supra* n. 8.

[77] *See* OECD, *Report on Pillar One Blueprint, supra* n. 4, at 11. Among the commentators, it was widely criticized that the precise policy aim, and scope remain unclear. This was acknowledged by a representative of the OECD on the virtual meeting on the Pillar One Blueprint 14 Jan. 2021who reasoned the lack of clarity with the lack of consensus among members of the Inclusive Framework.

[78] The term 'highly digitalized business models' usually refer to business models that, to a varying extent, create value from cross-jurisdictional scale without mass, reliance on intangible assets including IP and data, and user participation and their synergies with IP. *See* OECD, *2018 Interim Report, supra* n. 39, Ch. 2: Digitalisation, business models and value creation.

[79] *See* OECD, *Report on Pillar One Blueprint, supra* n. 4, at 17.

[80] See e.g., OECD, *Report on Pillar One Blueprint*, *supra* n. 4, at 27.

[81] As an alternative to the activity test, the US has suggested applying Amount A on a Safe Harbour Basis. Under a Safe Harbour approach MNEs could elect to have all of the components of Pillar One apply to them on a global basis reducing the need to resolve contentious scoping issues. Election procedures could be provided to require that an MNE's election be made on a global and multi-year basis. However, several countries have expressed skepticism. OECD, *Report on Pillar One Blueprint, supra* n. 4, at 57.

[82] OECD, *Report on Pillar One Blueprint, supra* n. 4, at 58.

[83] *Ibid.,* at 59.

right, the local de minimis rules could be based on GDP.[84] Finally, it is discussed whether to include a temporal requirement/duration test to demonstrate that the significant engagement is sustained and not just of a one-off nature.[85] An example of the application of the global and local threshold is provided:

> *'If it were assume{d} that for the Amount A formula it is agreed that 20% of the MNE's profits in excess of a 10% profit margin would be allocated to the market. Under Amount A, the MNE's residual profits would be EUR 25 million, of which EUR 5 million (20%) would be allocated to market jurisdictions under Amount A. At a 25% corporate tax rate, this would equate to EUR 1.25 million in additional CIT or EUR 125,000 if this amount were split equally between 10 market jurisdictions.'*[86]

It is contemplated that for MNEs providing automated digital services, such a market-revenue threshold will be the only test to establish a new nexus that will allocate a taxing right to the market state.[87] On the contrary, it is considered that consumer-facing business will only have a new nexus if it generates market-revenue exceeding a higher market threshold *and* it has an additional (yet to be decided) indicator of nexus, i.e., a so-called plus-factor.[88]

The contemplated activity test implies that in-scope businesses should generate income from automated digital services (hereinafter: ADS) or consumer-facing businesses (hereinafter: CFB) with a CFB being secondary.[89] Under the Pillar One Blueprint, a CFB supplies goods or services either directly or indirectly that are of a type commonly sold to consumers and/or licenses or otherwise exploits intangible property that is connected to the supply of such goods or services.[90] Further, it is stated that, an MNE would be regarded as being a CFB if the MNE is the owner of the product and the related brands, i.e., MNEs for which their 'face' is apparent to the consumer.[91]

With respect to the activity test of ADS, the Pillar One Blueprint provides the following definition:

> *An ADS is one where:*
>
> *The service is* ***on the positive list****; or*
>
> *The service is*
>
> - ***automated*** *(*i.e., *once the system is set up the provision of the service to a particularuser* ***requires minimal human involvement*** *on the part of the service provider); and*
>
> ***digital*** *(*i.e., *provided over the Internet or an electronic network); and*
>
> - *it is* ***not on the negative list.***[92] (author's emphazis)

Hence, only if an activity carried out by an MNE is *neither* on the positive list *nor* on the negative list, recourse shall be had to the general definition of the ADS. The positive list and the negative list contain the categories of services listed below in Table 1. The Pillar One Blueprint includes definitions of the services and accompanying commentaries that are elaborating on their scope.[93]

Table 1

The Positive List	*The Negative List*
1. Online advertising services	1. Customized professional services
2. Sale or other alienation of user data	2. Customized online teaching services
3. Online search engines	3. Online sale of goods and services other than ADS
4. Social media platforms	4. Revenue from the sale of a physical good, irrespective of network connectivity ('Internet of things')
5. Online intermediation platforms	5. Services providing access to the Internet or another electronic network
6. Digital content services	
7. Online gaming	
8. Standardized online teaching services	
9. Cloud computing services	

In multi-sided business models, one side of it may be monetized through another side. For instance, a social media platform provided to users against no monetary

Notes

[84] *Ibid.,* at 65.

[85] *Ibid.*

[86] *Ibid.,* at 62.

[87] *Ibid.,* at 65–66.

[88] *Ibid.,* at 66–68. A plus-factor for the CFB may include the taxable presence under the current international rules or other plus-factors unconstrained of physical presence, e.g., exceeding an even higher market-revenue threshold, sustained presence of personnel or advertising and promotion expenditures exceeding a certain percentage of the market-revenue threshold.

[89] OECD, *Report on Pillar One Blueprint, supra* n. 4, at 38.

[90] *Ibid.,* at 37.

[91] *Ibid.,* at 38.

[92] *Ibid.,* at 23.

[93] The contemplated definition and associated commentaries of services included in the positive and negative lists are stated on at 24–32 and 32–36, respectively, of OECD, *Report on Pillar One Blueprint, supra* n. 4.

means of exchange may be monetized through the sale of online advertising services that are purchased by customers on the other side of the business who are targeting the users of the social media platform. In such situations, only the category of online advertising services will be the appropriate category – also for revenue sourcing purposes.[94]

It is estimated that the number of MNEs with a primary activity in ADS or CFB sectors *after* applying a global revenue threshold on 750 mEUR is limited to 2,300 worldwide.[95]

In the Pillar One Blueprint specific hierarchical sourcing rules are provided to determine if an in-scope MNE has realized revenue 'deriving' from a market state. With respect to CFB, the applicable sourcing rule for revenue from services is the 'place of enjoyment or use of the service' and revenue from goods sold directly or through an independent distributor is the 'place of final delivery', as reported by the independent distributor where relevant. These places are to be determined based on two lists of indicators in hierarchical order.[96]

The applicable revenue sourcing rule with respect to the ADS is dependent on the specific activity performed by the MNE although the revenue from *(1)* online advertising and *(2)* sale or other alienation of user data are prevalent revenue streams, i.e., whenever an MNE derives revenues from these activities, this revenue will be sourced according to these rules.[97] It is contemplated to divide sourcing rules to revenue from both services into:

– Sourcing rules applicable to revenue from online advertising services based on the 'real-time location of the viewer' and revenue from the sale or other alienation of user data based on the 'real-time location of the user'. The sourcing of such revenue should be based on real-time location of the viewer at the time of display, and the user who is the subject of the data being transmitted, at the time of data collection, respectively.[98] In this respect, the relevant indicators in hierarchical order are: *(i)* the jurisdiction of the 'geolocation'[99] of the device, *(ii)* the jurisdiction of the 'IP address'[100] of the device, and *(iii)* other available information that can be used to determine the jurisdiction of the real-time location of the viewer or the user.[101]
– Sourcing rules that are applicable to revenue from *other* online advertising services and *other* sale or alienation of user data. The sourcing of such revenue should be according to the jurisdiction of the 'ordinary residence' of the viewer of the advertisement or the user that is subject to data being transmitted. In this respect, the relevant indicators in hierarchical order also rely on mass data collected by an MNE such as geolocation or IP address data of users.[102]

Finally, it should be noted that if a new nexus has been established and the associated taxing right has been allocated to the market state according to the rules contemplated under the Pillar One Blueprint, the net principle is contemplated to be implemented by several different measures including a profitability test.[103] This is to ensure that the potential paying entities have the capacity to bear the tax liability and rules on losses carried-forward to ensure that there is no allocation where the relevant business is not profitable over time. More specifically, it is considered that the final solution should include 'pre-regime losses', i.e., losses incurred prior to potential implementation of the new taxing right, and 'in-regime losses', i.e., losses incurred after the taxing right enters into force.[104] Lastly, it is discussed whether to include so-called 'profit-shortfalls', i.e., the delta between the actual in-scope profit of an MNE and the profitability threshold. In other words, if

Notes

[94] OECD, *Report on Pillar One Blueprint, supra* n. 4, at 25.

[95] *Ibid.,* at 59.

[96] *Ibid.,* at 80–82.

[97] *Ibid.,* at 72.

[98] *Ibid.,* at 72–74.

[99] *Ibid.,* at 82–83. Geolocation is described as services using various data points to determine a location including a combination of IP address, GPS-derived location data, cell tower IDs and data associated with Wi-Fi positioning systems. Hence, when available, geolocation should provide a quite accurate indicator for sourcing revenue.

[100] OECD, *Report on Pillar One Blueprint, supra* n. 4, at 83. An IP address is the number assigned to each device connected to a computer network. Even though an IP address does not contain the location of the user, IP address databases are widely used by MNEs to determine the location of the user for business reasons and may be a practical indicator for sourcing revenue. It is recognized that issues regarding the use of a VPN will be a challenge in practice.

[101] OECD, *Report on Pillar One Blueprint, supra* n. 4, at 85.

[102] *Ibid.,* at 73–74.

[103] Net principle refers to taxes on (net) income which is a measure of a person's capacity to command economic resources, i.e., taxes are imposed on income only after allowing for a deduction. *See* K. J. Holmes, *The Concept of Income – A Multi-disciplinary Analysis*, Doctoral Series Vol. 1 (IBFD 2001), Ch. 1, *Tax fairness.* Further, in respect of the concept of 'income', it has previously been argued in the international tax literature that, in the economics of the twentieth century, the concept of income should be understood in accordance with 'wealth accrual' which relates to the economic ability of persons. Stated otherwise, income may be determined as the disposing power of a person who has not impaired his capital or incurred debts. This understanding of the concept of 'income' has been referred to as the Haigh-Simons concept of income or the Schanz-Haigh-Simons concept of income referring to the main contributions of G. Von Schanz, *Der Einkommensbegriff und die Einkommensgesetze*, Finanz-Archiv (1896); R. Haig, *The Concepts of Income – Economic and Legal Aspects*, The Federal Income Tax (Columbia University Press 1921) and H. Simons, *Personal Income Taxation – The Definition of Income as a Problem of Fiscal Policy* (University of Chicago Press 1983). For a thorough analysis, *see* K. Holmes, *The Concept of Income –a Multi-disciplinary Analysis*, Doctoral Series Vol. 1 (IBFD 2001), in particular Ch. 2, *Foundation Concept of Income.*

[104] OECD, *Report on Pillar One Blueprint, supra* n. 4, at 111–123.

the actual in-scope *profit* of an MNE decreases below the profitability threshold, the difference may be carried forward to offset future years' actual in-scope profit above the profitability threshold.[105]

3.1.2 *Is the New Taxing Right Justifiable?*

Recall the report conducted by the four economists back in 1923 and particularly the consideration on commercial establishments with a fixed location, i.e., with a main or head office in a particular place, the four economists concluded that the origin was of *outstanding significanc*e to such business models. This was due to the influence of sales and the existence of many selling agencies or branches and further because origin would typically be reinforced by the 'situs'. However, because control at distance was already to some extent possible at that time, 'domicile' would be of more importance compared to businesses based on factories, mines, or oil wells.

On the one hand, it may be argued that the ability of highly digitalized business models to 'scale without mass' – being a general feature of businesses rendering the ADS[106] – implies that the place of 'origin' to a less extent is reinforced by the 'situs'. Remote selling without a local physical presence is arguably decreasing the importance of 'origin'. Further, the development in the information and communication technology implies that the possibility of controlling the origin at greater distances has improved significantly, arguably increasing the importance of 'domicile'. Hence, such arguments would weaken the coherence between the principles stated in the report from 1923, and the new nexus contemplated by the IF members that is based on an increase of the importance of 'origin', which is understood as the place of local sale and wealth production represented by the real-time location or place of ordinary residence of the viewers and users.

On the other hand, the influence of sale especially through online medias is significant among highly digitalized businesses, i.e., 'origin'. At the time that the underlying principles were formulated, sales and production functions were (often exclusively) performed by agencies and branches physically present in the local markets, which would have implied that the 'situs' would reinforce 'origin'. Currently, the influence on sales of highly digitalized businesses may be performed by the MNEs (exclusively) through online interfaces at the place of the viewers. Hence, such MNEs are relying on local telecommunication infrastructures (e.g., submarine cables and signal towers), terminals or devices to transmit digital information (e.g., computers and phones), and senders and receivers of such digital information (e.g., users or customers in the targeted country).[107]

If the situs is interpreted as a digital location, this would arguably reinforce and thereby increase the importance of 'origin'.[108] Further, the inclusion of a significant amount of user data in the production function of MNEs deriving revenue from targeted advertising and sales or other alienation of user data previously referred to as the 'phenomenon of free labor' or 'prosumers' arguably produces some value.[109] According to this argument, the use of customers and users in market states as a resource or an input factor in the provision of products and services may imply that such users and customers could constitute a specific and identifiable stage in the production of wealth, i.e., a place of origin. Accepting this argument, the allocation of taxing rights to such market states based on the principle of origin might be justified. Notably, this situation should be distinguished from the situation in which businesses only use customers as a (consumption) market where income is realized. This should also question the justification for establishing a nexus in the country of the purchaser of products and services such as digital content and cloud computing if the MNE is not relying on an active and sustained user base in the provision of such product and services.[110]

In addition, it may be argued that the reliance on legal infrastructure regarding IP protection and enforcement of transactions with the users in the market states represent 'enforcement' which was one of the four factors identified in the report from 1923. This factor was primarily considered of importance if it reinforced either 'origin' or 'residence'. Arguably, 'enforcement' reinforces 'origin' in many highly digitalized business models.

Consequently, it is arguably possible to make a link between *(1)* the requirement of a sufficient level of economic presence under the contemplated new nexus of MNEs providing online advertising and sales or other

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[105] *Ibid.,* at 114.

[106] *Ibid.,* at 24.

[107] *See also* Li, *supra* n. 1, at 29.

[108] *See also* Hongler & Pistone, *supra* n. 48, at 19. The authors argue that the threshold defined in Art. 5 of the OECD Model will always be somehow artificial. Accepting that there is no solid argument for an exact threshold, it may be argued that a more 'up-to-date' interpretation could be included within the underlying principles of the international tax rules.

[109] *See* e.g., Collin & Colin, *supra* n. 62. They refer to users generating data i.e., put back into the production chain – blurring the dividing line between production and consumption, as 'free labor'; Becker and Englisch, *supra* n. 39, at 166–170; Petruzzi & Buriak, *supra* n. 62. The authors refer to users generating data as 'unconscious employees'. Brauner & Pistone, *supra* n. 62. The authors argue that, if the role of users becomes that of active customers, at least a portion of the income realized should be allocated to the country of the users.

[110] *See also* Buriak, *supra* n. 15, at 307 and Becker & Englisch, *supra* n. 39, at 167–169. On the other hand, as previously stated Klaus Vogel seems to argue that there is no valid objection against a claim of the sales state to tax part of the sales income, *see* Vogel, *supra* n. 15, at 400–401.

alienation of user data and *(2)* the factor of 'origin' considered of 'preponderant weight' when assessing the economic allegiance of business profit as developed by the group of economists almost a century ago.[111] In this respect, it is noted that it has previously been criticized that the problem that Amount A is attempting to solve is not clearly articulated and, further, that the principles that might solve this indistinct problem are not clearly communicated.[112] It is argued in this article that, if the problem is that market states are left with too little revenue to tax from MNEs with active and sustained *value creation* in the market states,[113] this could be justified through the ability to pay principle incorporating a modernized interpretation of the principle of origin. Under this justification, the contemplated new nexus should constitute a specific and identifiable stage of the wealth production where this 'ability' to pay is created, i.e., 'origin'.

The new taxing right is estimated to result in a reallocation of approx. 100 billion USD to market states.[114] Hence, according to these illustrative estimates, the Pillar One Blueprint, will in fact allocate taxing rights to more tax revenue to the market states, although this estimate also includes in-scope businesses not generating revenue from online advertising and sale or other alienation of user data.[115]

However, it is argued in this article that the contemplated new taxing right should not be targeting industry-specific business models or fact-specific services. *Firstly*, as already concluded in the final report on Action 1 in the BEPS-Project, it is impossible to ringfence the digital economy as this is now the economy at large.[116] Hence, any rules specifically targeting certain business models will result in arbitrariness and will be unlikely to succeed at only affecting their target. *Secondly*, as elaborated above in section 2, it is contended that rules targeting (fact) specific business models will hardly stand the test of time. In other words, it should be expected that these rules as we know them today will have a difficult time keeping up with the ever-evolving digitalization of the economy.[117]

Another critical point is the choice of a revenue-based threshold as a part of the scope and (sole) nexus criteria, which is difficult to justify based on the principle of economic allegiance. Stated differently, it will conflict with this principle if two businesses are both producing wealth in a market state (e.g., through an active and content-producing local user base) but are not both contributing to it according to their ability created in this market state because of differences in the realization of value sourced to it, i.e., revenue just above and just under a specific and somewhat arbitrary threshold. Further, an inherent consequence of revenue thresholds is a 'cliff edge effect' meaning that a revenue threshold may create an incentive to only generate revenue just under the threshold. Nonetheless, given the compliance burden resulting from the contemplated rules,[118] it must be acknowledged that a certain threshold seems necessary, and, in this respect, a revenue-based threshold indeed seems to be a simple 'entry criterion'.

A positive point to be noted is that the Pillar One Blueprint aims at only taxing true economic benefit by taxing according to the net principle, thus respecting the ability to pay principle which in this article is argued to be an inherent part of the economic allegiance principle.[119] During the consultation process, the importance of the treatment of losses have been stressed by some of the highly digitalized businesses,[120] reminding the members of the IF that two of the features identified by the OECD as characterizing digitalized businesses providing the ADS: *(1)* they incur substantial losses in the start-up phase due to significant investment, i.e., a substantial degree of upfront human involvement and significant capital input in infrastructure and R&D, and *(2)* their business model is typically based on 'high volume – low margin'.[121] The

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[111] *See also* Chand & Canapa, *supra* n. 75.

[112] *See* the OECD Public Consultation Meeting on the Pillar One Blueprint, *supra* n. 8.

[113] See OECD, *Report on Pillar One Blueprint, supra* n. 4, at 19.

[114] OECD, *Economic Impact Assessment, supra* n. 13, at 15. The estimates are based on the following illustrative assumptions. Only Amount A is modelled focusing on ADS and CFB, with a global revenue threshold of EUR 750 m, a profitability threshold percentage of 10% (based on the ratio of profit before tax to turnover), residual profit of the MNE groups that would be in scope of Amount A on 500 billion USD, a reallocation percentage of 20%, and a nexus revenue threshold of EUR 1 m for ADS and EUR 3 m. It is estimated that, on average, low and middle-income economies would gain relatively more revenue than advanced economies whereas 'investment hubs' would experience a loss in tax revenues. OECD, *Economic Impact Assessment, supra* n. 13, at 61–62.

[115] NGOs have stated that the estimated reallocation of tax revenue is too little, *see* OECD Public Consultation Meeting on the Pillar One Blueprint, *supra* n. 8 and Saint-Amans, *supra* n. 2, at 310.

[116] *See also* S. Buriak, *supra* n. 15, at 307 and Becker and Englisch, *supra* n. 39, at 167–169. On the other hand, Klaus Vogel seems to argue that there is no valid objection against a claim of the sales state to tax part of the sales income as income received from sales would not have been earned without the market they provide, Vogel, *supra* n. 15, at 400–401.

[117] *See also* Byrnes, *supra* n. 75.

[118] The significant complexity and compliance burden is also problematized by Greil and Eisgruber, *supra* n. 10. and Van den Hurk, *supra* n. 75.

[119] *See also* Byrnes, *supra* n. 75. Similarly, it has been argued in the international tax literature on turnover taxes that the lack of right to deduct costs violates the ability to pay principle; *see* e.g., Stevanato (2019), *supra* n. 13, at 417 and the same author in Stevanato, *supra* n. 13; Pinto Nogueira, *supra* n. 13.

[120] *See* e.g., the responses of The Digital Economy Group, at 11 and Spotify, at 4 and 9, to the OECD Public Consultation: *Addressing the Challenges of the Digitalization of the Economy* (6 Mar. 2019).

[121] See OECD, *Report on Pillar One Blueprint, supra* n. 4, at 24 and OECD, *2018 Interim Report*, *supra* n. 39, at 75.

combination of these two features implies that it may take several years before these businesses become profitable. More specifically, according to recently published research, approximately 80% of the companies in the information technology sector take longer than ten years to reach economic break-even.[122] Therefore, if these companies are swept into the contemplated new taxing right, it is important that any pre-regime losses and in-regime losses are accounted for prior to allocating tax revenue to the eligible market states. Otherwise, such companies could be overtaxed which violates the ability to pay tax principle.[123] Further, such rules on losses carry-forward are a way to preserve the taxing rights of residence jurisdictions that have accepted (and will continue to accept) the deduction of losses generated by a business, i.e., such rules will likely enhance inter-nation equity. Stated otherwise, the residence jurisdiction that bears the initial downside of a business activity will be able to recover these losses before a portion of the profit generated by the same activity is allocated to a market state.[124]

3.2 *Amendments to the UN Model*

Next to the comprehensive work carried out by the IF, the Committee of Experts on International Cooperation in Tax Matters under the UN (hereinafter: the Committee) has carried out its own work – also in light of the current uncertainty as to whether the members of the IF will come to an agreement on a consensus-based solution. Further, as a large part of the members of the UN are developing countries with limited administrative capacity for domestic tax authorities to apply and enforce complicated rules, an additional focus to allocating more taxing rights to the market states is simplicity for administration and compliance purposes. This also seems to be reflected in the two discussion drafts by the Committee which suggest a right to impose withholding taxes on the gross amount of payments. Such an approach is argued to be a well-established and effective method for collecting a tax imposed on non-residents.[125]

3.2.1 *Inclusion of Software in the Royalty Definition*

While the provision on royalties in Article 12 of the UN Model (2017) in many ways replicate Article 12 of the OECD Model (2017), an important difference is that the taxing right is shared between the residence state and the state where the payment 'arises' under the UN Model (2017). In this respect, it follows from Article 12 (5) of the UN Model that royalties shall be deemed to arise in a state when the payer is a resident of that state. This is unless the payer has a PE or a fixed base in connection with which the liability to pay the royalties was incurred, and such royalties are borne by the PE or fixed base. The royalties shall then be deemed to arise in the state in which the PE or fixed base is situated.

Some members of the Committee have considered broadening the scope of the definition of royalty under Article 12(3) of the UN Model (2017) to also include payments of any kind that are received as a consideration for the use of, or the right to use 'computer software'.[126]

While software is not explicitly mentioned in the current (exhaustive) definition, it follows from Article 3(2) of the UN Model that it is domestic law which is decisive when interpreting the scope of the intellectual rights, equipment, and experiences included in the definition, unless the context requires otherwise.[127] Countries typically protect rights in computer programs either explicitly or implicitly under domestic copyright law.[128] While the term 'computer software' is commonly used to describe both the program, *in* which the copyright subsists and the medium *on* which it is embodied, only the former usually enjoys copyright protection.[129] This distinction is important, as only payments for the right to use the copyright should be classified as a royalty – understood as a use that, in the absence of such right, would constitute an infringement of the copyright.[130] However, the classification of

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[122] *See* Deschsakulthorn et al., *supra* n. 12, at 329.

[123] *See also* Byrnes, *supra* n. 75.

[124] See OECD, *Report on Pillar One Blueprint*, *supra* n. 4, at 111.

[125] *See* e.g., para. 11 of the proposed Commentaries in *Committee – Art. 12 B on Automated Digital Services* (E/C.18/2020/CRP.41), *supra* n. 4 and Byrnes, *supra* n. 75. Byrnes argues that a withholding based system offers an immediately implementable regime built on legacy systems and procedural simplicity and certainty, better revenue estimation for tax authorities, less complex and expensive audits, better tax risk management for taxpayers, an established procedural system for relief of double taxation and less cause for requiring MAP.

[126] Committee – Inclusion of software payments in the definition of royalties (E/C.18/2020/CRP.38), *supra* n. 4, at 2. Post the acceptance of this article, the majority of the Committee members voted not to include this proposal and the associated commentaries in the 2021-version of the UN Model, *see* United Nation, Committee of Experts on International Coorperation in Tax Matters, *Note by the Subcommittee on the UN Model Tax Convention, Update of the UN Model Double Taxation Convention between Developed and Developing Countries - Inclusion of software payments in the definition of royalties*, A/C18/2021/CRP.9, Virtual Session: 19-28 Apr. 2021.

[127] Although the exact importance is subject to ongoing debate in the international tax literature, interpretation of international tax rules is typically done according to or inspired by Arts 31 and 32 Vienna Convention as well as Art. 3(2) OECD Model (2017). However, A. P. Dourado et al., *General Definitions*, in *Klaus Vogel on Double Taxation Convention* 211–213 (4th ed., E. Reimer & A. Rust eds, Wolters Kluwer Law and Business 2015) argue against a systematic preference for interpretation from the context over interpretation by reference to national law.

[128] *See* OECD Model (2017): Commentaries to Art. 12 (3), para. 12.2 and OECD Model (2017): Commentaries to Art. 12 (2), para. 12.2.

[129] *See* UN Model (2017): Commentaries to Art. 12 (3), para. 12.2 and OECD Model (2017): Commentaries to Art. 12 (2), para. 12.2.

[130] *See* UN Model (2017): Commentaries to Art. 12 (3), para. 13.1 and OECD Model (2017): Commentaries to Art. 12 (3), para. 13.1.

royalties on this basis does not apply if the rights granted are limited to those necessary to enable the user to operate the program. Such payments – and thereby many payments for software products – should generally not be classified as royalties but instead as business income.[131] This prevents the source state from taxing such payments in the absence of a PE or fixed place in the source state to which the payments are attributed.[132]

By including 'computer software' in the definition, all payments for the right to use it should be classified as royalties – irrespective of whether a payment is paid as consideration for the use of copyright in software or for a copy of the software.[133] Notably, payments for the acquisition of the IP right itself (i.e., acquisition of property) should still be distinguished from payments for a license to a copy of the software or the right to download the software (i.e., payments for the right to use the software).

3.2.2 *Is the New Taxing Right Justifiable?*

With respect to the policy rationale of adding 'computer software', the proponent members of the Committee argued that the increasing level of engagement of computer programs and other software in the economic life of other states justifies the allocation of taxing rights to these states.[134] However, against this policy rationale, some members argued that it is unclear and problematic, e.g., in regard to countries exporting (rare) natural resources such as metals used in cell phones, or oil on which the world's economy relies. As these goods have a significant level of engagement in the economy of the states where they are used, these members argued that the underlying policy rationale of including software should similarly justify taxation in the states exporting natural resources.[135]

It is argued in this article that the opponents are generally correct in stating that '*the underlying principles, and consistency with approaches taken elsewhere, must underpin such a change*'.[136] However, it also reasoned that it is not unambiguously right or wrong, when it is stated that allocating a taxing right based on '*producers of software rely upon the legal infrastructure in that country for the protection of intellectual property rights*' contradicts the underlying principles.[137] The reliance on legal infrastructure regarding IP protection and enforcement of payment for transactions seems to be one of the four factors, i.e., 'enforcement', identified by the four economists in the 1923 report as comprising economic allegiance. Similarly, it could be argued that it is not unambiguously right or wrong when members of the Committee argue that it contradicts the underlying principles if taxation at source is based on the software provider's '*reliance on the telecommunication network of the country for the delivery of software*'.[138] A contra argument may be that, because MNEs rely on the local infrastructure, they do not need to develop their own infrastructure which arguably could have constituted a 'situs' of the MNEs in the market states.

Hence, it is contended that two of the factors, i.e., 'enforcement' and 'situs', identified by the four economists in the 1923 report as comprising economic allegiance and thereby being the basis for the design of the international tax frame-work, plausibly could support a shared taxing right. However, notably, the market state (i.e., the place of 'enfor-cement' and 'situs') may not be the state in which the payment arises. Thus, the service can be produced and provided in one jurisdiction, while the payment arises in another.

Furthermore, the two factors ('enforcement' and 'situs') were considered of importance primarily if they reinforce either 'domicile' or 'origin'. With respect to 'origin' which was considered of preponderant weight when determining economic allegiance of business profit, the sole connection to the source state under Article 12 may be the point of sale, i.e., the market, depending on the specific business model applied by the seller. Hence, it is argued that, while the place where the payment arises may be a proxy for in which non-domicile country wealth is created and produced, there will likely be business models in which the proxy does not coincidence with the economic substance of origin.[139] In such cases, the proposed addition to the definition of royalty would arguably separate 'origin' from the source state (i.e., the state where the payment arises) also supported by 'enforcement' and 'situs' not being (significant) in the source state.

In conclusion, it seems difficult to make a satisfying link between the requirement of a sufficient level of economic presence under the proposal presented in the discussion draft and the factors comprising economic allegiance as developed by the group of economists back in 1923. While this principle is argued to provide a justification for the current allocation of taxing right to business

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[131] *See* UN Model (2017): Commentaries to Art. 12 (3), para. 14 and OECD Model (2017): Commentaries to Art. 12 (3), para. 14.

[132] *See* e.g., L. Fjord Kjærsgaard, *Allocation of the Taxing Right to Payments for Cloud Computing-as-a-Service*, 11(3) World Tax J. 393–395 (2019).

[133] *Committee – Inclusion of Software Payments in the Definition of Royalties* (E/C.18/2020/CRP.38), *supra* n. 4, at 2.

[134] *Ibid.*

[135] *Ibid.,* at 4.

[136] *Ibid.,* at 5. This is also emphasized and supported by e.g., the Silicon Valley Tax Directors Group, at 60–62.

[137] *Committee – Inclusion of Software Payments in the Definition of Royalties* (E/C.18/2020/CRP.38), *supra* n. 4, at 5.

[138] *Ibid.*

[139] *See* e.g., Kemmeren, *supra* n. 15, at 434.

profit, it is recognized that the same disconnection applies to interests, royalties and technical fees under Article 11, 12, and 12A of the UN Model but without further justification, this cannot justify the new taxing right. Further, the political policy rationale, i.e., that more tax revenue should be allocated to the state where software is used, may not be reached insofar that the market state differs from the source state.

In addition to the disconnection from the principle of economic allegiance, another weakness of the proposal is the general challenges associated with shared taxing rights and source taxation imposed on gross-amounts. As also noted above under the IF's contemplated new taxing right and by the opponents of the proposal, the development of software is often expensive and may result in tax losses in the country where it is developed. In addition, the developer may have incurred substantial costs to other unsuccessful software projects.[140] Hence, even if tax-relief is provided for under Article 23 of the UN Model, loss-making MNEs will not have any taxes to off-set the source taxation, which would effectively be a final tax. Further, gross taxation at source may be problematic even for profit-making MNEs. In addition to the time-consuming administration associated with obtaining tax relief, a myriad of different and complex domestic tax rules governing tax relief will typically include tax-relief based on the net-principle and effectively imply that it is not possible to receive full relief. Hence, the result of gross-taxation at source will often result in double taxation, contradicting the ability to pay principle arguably incorporating the single-tax principle and in this article argued to be an inherent part of the economic allegiance principle.[141] Again, the argument that other provisions in the UN Model imply a similar violation does not seem convincing.

Finally, as previously discussed, it is argued in this article that a long-term solution should not be targeting fact-specific types of income which will likely result in arbitrariness, unlikely succeed at only affecting their target, and hardly stand the test of time.

3.2.3 *Shared Taxing Right to Automated Digital Services*

An additional discussion draft has been presented by the Committee.[142] Briefly explained, the new provision is proposed to be implemented as Article 12 B in the UN Model and will imply a shared taxing right to cross-border income from automated digital services (hereinafter: ADS) arising in a contracting state.[143] However, if the recipient is the beneficial owner,[144] the source taxation shall not exceed a percentage of the gross amount – to be established through bilateral negotiations; although, it is recommended to be 3% or 4%.[145]

For the purpose of Article 12 B, the definition of the ADS, is similar to the general definition of ADS under the new taxing right in the IF's Pillar One Blueprint. Accordingly, payment for the ADS includes:

> *any payment in consideration for any service provided on the internet or an electronic network requiring minimal human involvement from the service provider.*[146]

Further, the proposed commentaries include two lists exemplifying business models included and excluded from the proposed discussion draft on ADS.[147] The lists proposed in the discussion draft are identical to the positive list and negative list contemplated in the Pillar One

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[140] *Committee – Inclusion of Software Payments in the Definition of Royalties* (E/C.18/2020/CRP.38), *supra* n. 4, at 5. This is also supported by a number of the non-government responders, e.g., Confederation of British Industry, 14; Dhruva Advisors LLP, 22; International Chamber of Commerce, 39–40; South Centre Tax Initiative, 77–78; United States Council for International Business, 84–85.

[141] *See also* Hongler & Pistone, *supra* n. 48, at 45; United Nations, Committee of Experts on International Cooperation in Tax Matters, *Proposed Changes to the UN Model Tax Convention Dealing with the Cyber-Based Services*, Y. Zhu E/C.18/2014/CRP.9 (30 Sept. 2014).

[142] Post the acceptance of this article, the majority of the Committee members voted to include this proposal and the associated commentaries (with certain amendments and selectable options) in the 2021-version of the UN Model, *see* United Nation, Committee of Experts on International Coorperation in Tax matters, *Report on the twenty-second session*, E/C.18/2021/CRP.1, Virtual Session 19-28 Apr. 2021.

[143] The discussion draft on Art. 12B of the UN Model is also discussed by Dourado, *supra* n. 75; Greil & Eisgruber, *supra* n. 10.

[144] The term 'beneficial owner' is elaborated in paras 18–23 of the proposed Commentaries in Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4 and, accordingly, the term is not used in a narrow technical sense. Rather, it should be understood in its context, in particular in relation to the words 'paid … to a resident' and considering the object and purposes of the UN Model, including avoiding double taxation and the prevention of fiscal evasion and avoidance. It should be noted that, despite being subject to extensive analyses in the international tax literature, the term 'beneficial owner' is still highly debated and still not completely settled. For a thorough analysis of the term 'beneficial owner', reference may be given to A. Meindl-Ringler, *Beneficial Ownership in International Tax Law*, Series on International taxation no. 58 (Wolters Kluwer 2016). *See also* W. Haslehner, *Article 10,* in *Dividends in Klaus Vogel on Double Taxation Conventions* 816–818 (4th ed., E. Reimer & A. Rust eds, Kluwer Law International 2015) and D. G. Duff, *Beneficial Ownership: Recent Trends*, in *Beneficial Ownership: Recent Trends*, 17–22 (M. Lang et al. eds, IBFD 2013).

[145] *See* paras 4, 15, and 16 of the proposed Commentaries Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4. It is recommended that the following is taken into account: risk that cost of the tax is passed on to customers, the risk of deterring investment, significant costs imply that withholding tax on gross payment may result in an excessive effective tax rate on the net income, the relative flows of payments in consideration for ADS (e.g., from developing to developed countries).

[146] Article 12 B(4) includes the definition whereas paras 34–37 of the proposed Commentaries in Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4 elaborate the content similar to the guidance provided in the Pillar One Blueprint, *see* OECD, *Report on Pillar One Blueprint, supra* n. 4.

[147] *See* paras 38 and 39 which list and elaborate on the examples of business models generally considered to provide the ADS, whereas paras 40 and 41 list and elaborate on the examples of business models generally considered not to provide it. All in the proposed Commentaries in Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4.

Blueprint and the description provided in the commentaries are similar although not fully identical.

If a payment is classified as consideration for the ADS, it follows from Article 12 B(6) that income from rendering the service shall be deemed to 'arise' in a contracting state if the payer is a resident or has a PE or a fixed base to which the obligation to make the payment is attributable and borne. However, pursuant to paragraph 7, income from the ADS shall *not* be deemed to 'arise' in a state if the payer is a resident of that state but the payment for ADS is attributable to and borne by a PE in the residence state of the recipient. An objective standard for determining that payments for ADS have a close economic connection to the state in which the PE or fixed base is situated is whether deduction of the payment is available when assessing the taxable profit of the PE or the fixed base.[148]

Interestingly, recognizing the challenges regarding gross-taxation at source also discussed under the proposal to add computer software to the definition of royalties, the proposed Article 12B(3) introduces a new feature in the context of the UN Model. The invention is an option for the beneficial owner to request that its qualified profits from the ADS for the fiscal year should be taxed based on the net-principle at the tax rate provided for in the domestic laws of the source state. If net-based taxation is requested the 'qualified profits' are 30% of the amount following the profitability ratio of the beneficial owner's ADS segment to the gross annual revenue from the ADS derived from the source state. The profitability ratio should be calculated as the annual profits divided by the annual revenue as stated in the consolidated financial statements with profit before tax as per accounts and certain adjustments.[149] It is stated in the commentaries that the qualified profit is set at 30% in recognition of the fact that entire profits arising from a market state should not be attributed to the market state and based on allocation by assigning equal weightage to assets, employees, and revenue.[150]

3.2.4 *Is the New Taxing Right Justifiable?*

As further elaborated with respect to the justification of the new taxing right under the Pillar One Blueprint, when assessing the proposed provision according to the principle of economic allegiance, the ability of ADS providers to scale without mass is argued to imply that the place of 'origin' to a lesser extent is reinforced by 'situs' at the disposal of the MNE. Otherwise stated, traditional physical presence will be of little significance under remote selling. This will plausibly decrease the importance of 'origin'.

In addition, it may be argued that the payment will often arise in the market state, i.e., the state where production and creation of wealth is located, this may not always be the case, especially in multi-sided business models. In other words, the service may be created, produced and provided in one jurisdiction while the payment arises in another jurisdiction. This may imply that what could potentially constitute the 'situs' and 'origin' in highly digitalized business models may be separated from where the payment arises. Thus, as also stated in respect of the proposal on adding computer software to the royalty definition, the state where the payment arises may be a poor proxy of the production of wealth. Hence, even if the factors comprising economic allegiance are interpreted to take into account the digitalization and inherent dematerialization of the economy, this may not justify an allocation of a taxing right to the state where the payment arises.[151]

Stated otherwise, even if a local digital presence in the jurisdiction where the ADS is rendered (local telecommunication infrastructures and devices) and active users are located (users whose data is collected, applied, and/or sold) could potentially be regarded as the 'situs' reinforcing 'origin'. This does not necessarily coincide with the country where the payment arises.

Consequently, it seems difficult to make a satisfying link between the requirement of a sufficient level of economic presence under the proposal presented in the discussion draft and the factors comprising economic allegiance as developed by the group of economists back in 1923. Accordingly, it appears to be challenging to make a satisfying link between the requirement of a sufficient level of economic presence under the proposal presented in the discussion draft and what is argued to remain the fundaments of the underlying principles for current allocation of taxing rights.[152]

Another critical point is – as also stated with respect to the other two proposals – that in this article, it is argued that rules with industry and fact-specific scope (rather than a principle-based scope) in practice will often prove to be arbitrary and will hardly stand the test of time.

On the contrary, it is argued that while the qualified profit of 30% of profitability ratio increases complexity

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[148] *See* paras 56 and 57 of the proposed Commentaries in Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4.

[149] *See* para. 28 of the proposed Commentaries in Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4.

[150] *See* para. 30 of the proposed Commentaries in Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41), *supra* n. 4.

[151] *See also* Chand & Vilaseca, *supra* n. 75.

[152] This is somewhat recognized by the members of the Committee, as it is stated: '*The proposal is based on sourcing rule of "payment" rather than user location', the latter being an administratively difficult proposition. Consciously, the proposal has been pegged to payments. As far as 'value creation' as a concept for taxing rights is concerned, we find the whole concept of value creation to be too subjective and vague. Also, UN Model does not rely on value creation as a key factor to allocate taxing rights between States*'. See the proposed Commentaries in Committee – Art. 12 B on Automated Digital Services (E/C.18/2020/CRP.41) *supra* n. 4, at 31. See also Chand & Vilaseca, *supra* n. 75. The authors exemplify why this may not be to the benefit of developing countries.

and seems arbitrary and relatively unsupported, the possibility to request net-based taxation reduces the risk of double taxation if full credit cannot be obtained in the residence state.[153] Stated otherwise, the option for net-based taxation at source improves the proposal from the perspective of the ability to pay tax principle incorporating the single-tax principle and in this article argued to be an inherent part of the principle of economic allegiance.

4 Conclusions

The recent proposals presented by the IF and the UN focus on allocating more taxing rights to market jurisdictions that are perceived to be left with little or no tax revenue under the current international tax regime. The proposed new taxing rights should either be based on non-domiciled MNEs' 'value creation' in the market state or payments paid to the non-domiciled MNEs arising in the market states, respectively. However, neither of the proposals clearly articulate the principles for justifying such new taxing rights. While the proposals are intended to be finalized during 2021, the last consultations have revealed that neither of the proposals have provided a clear reason for *why* market states should be allocated more taxing rights.

Striving for a coherent international tax system: it is argued in this article that an amendment of the current international tax regime should be justified based on the principle of ability to pay and economic allegiance originating in the Report on Double Taxation from 1923. With respect to business profit, 'Origin' – meaning a specific and identifiable stage in an MNE's production of wealth – is considered of preponderant importance when justifying the allocation of taxing rights between competing authorities. More specifically, it is argued in this article that the international tax system should allocate a proportion of the MNE's ability to pay to the jurisdictions where this proportion of the ability is created without risking international double taxation or double non-taxation of the MNE. Accordingly, this interpretation of equity includes the ability to pay principle which may serve as a common frame of reference for determining the income to be allocated while also respecting the redistributive goal of taxation.

It is concluded in this article that, if economic allegiance is interpreted to consider the digitalization and the inherent dematerialization of the economy, this may justify that some taxing rights should be allocated to market states. More specifically, users recurringly engaging with a foreign MNE in a way that the activities of the users become part of the wealth production process of the MNE may justify allocation of a taxing right to the market state. In other words, such users may constitute a specific and identifiable stage in the wealth production of certain MNEs, e.g., generating revenue from targeted online advertising or sale of user data. Notably, the activities of the users must go beyond the existence of a loyal customer base merely reflecting the demand side of the market. Further, it is concluded that 'situs' and 'enforcement' – also being factors of economic allegiance – may reinforce the activity carried out in the market state. This is based on the use of local telecommunication and terminals or local users' devices to transmit digital information that may constitute an up-to-date situs for the users in the market states. Further, MNEs may rely on the legal infrastructure regarding IP protection and enforcement of transactions with the users in the market states which will represent 'enforcement'.

On this basis, it is concluded that the new nexus contemplated by the IF could be justified by the ability to pay principle incorporating economic allegiance where a proportion of the MNEs' ability is created in the market states. This could, in some business models, justify the creation of a new nexus with respect to online advertising and sale or other alienation of user data as contemplated by the IF. Further, while considered a simple entry criterion, a revenue-based threshold is somewhat arbitrary and difficult to justify based on economic allegiance.

As an important concern of developing countries is simplicity for administrability purposes, the two discussion drafts prepared by the Committee under the UN are based on taxation at source which is determined as the state where the payment arises. While this may be a simple measure for allocating taxing rights to non-domicile states, it is argued in this article that this cannot be justified according to the principle of economic allegiance in situations when software and the ADS are created and provided in a market state but payment arises in another state. In such a scenario, it is argued that a taxing right may be allocated to a state while none of the factors comprising economic allegiance points to this state. Stated otherwise, these proposals may fail to actually allocate tax revenue to the market states and additionally they constitute an unjustifiable separate tax system that is detached from the underlying principle and lacking economic reasoning.

Critically, it is concluded that all the three proposals target industry-specific businesses or fact-specific services where the scope seems arbitrary and will hardly stand the test of time.

Finally, it is concluded that the UN's proposal on gross taxation – and the intrinsic distortive risk of taxing loss-making MNEs or imposing double taxation on profit-making MNEs – conflicts with the ability to pay

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[153] *See also* Chand & Vilaseca, *supra* n. 75; Van den Hurk, *supra* n. 75. Hurk argues that while the optional net-based taxation is complicated and discussions should be expected especially about the group ratio, the solution is not impossible.

principle incorporating the single-tax principle. Consequently, the option for the beneficial owner to request for net-based taxation under the UN's proposed provision on the ADS is an innovative improvement, although this will likely increase the complexity and compliance burden. Similarly, the new nexus contemplated by the IF enhances the ability to pay tax principle if pre-regime losses and in-regime losses are included in a losses carried-forward regime to be part of the net-based taxation of in-scope MNEs. Further, preserving the taxing rights of residence jurisdictions that have accepted (and will continue to accept) the deduction of losses generated by an in-scope business will arguably enhance inter-nation equity.

While there is yet no agreement to any of the proposals, it is argued in this article that, among the proposals currently considered in the field of international taxation, the new nexus within the Pillar One Blueprint performs best as a justifiable measure for allocating more tax revenue to the market states. This justification is based on a more up-to-date interpretation of economic allegiance which is argued to be the underlying principle of the current allocation of taxing rights. Thereby, this justification also supports the aim of one coherent international tax regime.

PART III: Conclusion

The allocation of taxing rights between contracting states has been subject to debate for decades. Still, the digitalization of the economy is considered to enable monetization in new ways that raise questions regarding the rationale behind existing principles for allocating taxing rights. This dissertation has provided a technical and factual understanding of some of the most significant and promising digital technologies as they are often deployed in practice. On this basis, the primary aim has been to analyze how the taxing rights to income that is generated from the provision of digital products and services is allocated according to the law as it stands (*de lege lata*). The purpose has been to provide a legal dogmatic analysis of the classification and allocation of such income. Further, based on the findings of the current law and acknowledging the debate within the field of international taxation, it has been analyzed whether market states should be allocated more taxing rights based on the principles of ability to pay and economic allegiance (*de lege ferenda*).

It is concluded that some interactions between businesses and their users in principle may resemble barter transactions that are understood as transactions in which products or services are directly exchanged between two suppliers without using money as a medium of exchange. This may, for instance, be the scenario when access to a platform is provided against the right to collect and deploy data from the users of the platform. More specifically, this interaction could be regarded as comparatively superfluous exchange for comparatively necessary data and access. With less certainty, it may be argued that both the user providing data and the platform provider could be considered as "suppliers". Finally, barter transactions cannot be settled using monetary means of exchange. Again, there is no international tax definition of "money". However, "money" is typically characterized by being something that can be used as a medium of exchange, a measure of value, a standard value, and storage of value. It is argued that neither data provided by users nor access to platforms provided by businesses in exchange for each other fulfill the characteristic of money. In conclusion, it is argued that – in principle – some interactions between users and businesses deploying highly digitalized business models may be considered barter transactions. This may, at least in theory, give rise to income taxation on both sides of the transaction if an applicable tax treaty allocates the right to tax the user of such income to the user-jurisdiction, for example, as business income or other income under Articles 7 and 21 of the OECD Model (2017), respectively. However, it is recognized that in practice, it may be too difficult to legitimize and collect taxes from such barter transactions, including the use of platforms against no exchange in monetary consideration.

With respect to interactions between users and businesses providing digital products and services recognized as transactions – in this dissertation exemplified by cloud computing contracts – it is concluded that payment paid under what is referred to as mixed contracts in the commentaries to Article 12(2) of the OECD Model (2017), must in principle, be broken down for tax treaty purposes. This shall be based on the information given in the contract or by means of a reasonable apportionment of the entire amount of consideration pursuant to the various parts. Subsequently, the appropriate tax treatment, including classification, are applied to each apportioned part. However, based on a literal and autonomous interpretation of the Commentaries to Article 12(2) of the OECD Model (2017), it is concluded that unified taxation must be applied if – and only if – a contract has *one* principal purpose, and *all* other parts of the contract are ancillary *and* largely unimportant. Determining the principal service as well as the ancillary and largely unimportant services under a mixed contract is complex. It is argued that the determining factor of whether to apply unified taxation is whether the services are "inherently linked". However, it is uncertain whether this shall be understood from a technical or commercial perspective and/or from the perspective of the "typical" customer. To respect the taxpayers' right to legitimate expectations, it is recommended that further guidance on how to determine whether services are "inherently linked" should be provided. Such guidance could include a section with examples in the OECD Commentaries.

On the contrary, and like "traditional" hybrid financial instruments, it is concluded that the appropriate approach to take on the classification of cryptocurrencies issued through an ICO is the blanket approach. Accordingly, while some rights and obligations of a token may suggest that it should be classified as debt and others may suggest that it should be classified as equity or business income, the token shall be considered as *one* instrument and subject to unified taxation. This implies that the token shall be classified and treated as either interest-generating debt, dividend-generating equity, or another income generating asset based on whether the distinctive characteristics of the instrument are more debt-like or equity-like or provide other economic rights. Although no explicit reference is made to the blanket approach in the OECD Model (2017) or its commentaries, the fact that the OECD has considered it necessary to give explicit guidance to split-up mixed contracts under Article 12 but not under other income categories is argued to suggest that the approach described under Article 12 deviates from the general approach under the OECD Model (2017).

With respect to classifying the identified payments for tax treaty purposes, it is concluded that this shall be based on a thorough understanding of the specific transaction, including the specific terms of a contract. Hence, the classification of the payment may, in practice, vary according to these terms. Nonetheless, many transactions between businesses deploying highly digitalized business models and their users and customers are often related to certain software-based products and services. With respect

to such transactions, it is concluded that often the classification issue that arises – if all payments received by a business is received in the course of carrying on a business – is the distinction between business income and royalties, corresponding to Article 7 and Article 12 of the OECD Model (2017), respectively.

The classification of payments for the use of software depends on the nature of the rights that the user acquires under the particular arrangement with regard to the use and exploitation of the program. Based on the Commentaries to the OECD Model (2017), the use of software in a manner that, in the absence of a right to use the software, would constitute an infringement of a copyright, will imply that any payment for such a right should be classified as a royalty. However, if the rights acquired in relation to the software are limited to those necessary to enable the user to operate the program (which is an essential step in utilizing the software), payments are classified as business income under Article 7 of the OECD Model (2017). As opposed to the traditional download of software, cloud-based solutions as deployed by most highly digitalized businesses, do not generally imply a physical transfer of the software onto the cloud user's hard drive. Accordingly, in many countries, this will not constitute an infringement of a copyright, as the software is neither distributed nor reproduced. In addition, the cloud user generally acquires no information about the ideas and principles underlying the application; further, the reproduction of the image on the users' devices is regarded as a necessary and essential step in utilizing the software. On this basis, it is concluded that many payments for software-based products – and thereby many digital products and services – are likely classified as business income as they do not represent a consideration for the use of or the right to use the software but instead, the provision of a service using the software.

However, special attention shall be paid to whether an applicable tax treaty includes technical services or technical assistance within its definition of royalties and whether the technical knowledge used by the service provider may be considered "know-how". Similarly, with respect to cloud computing in the form of Infrastructure-as-a-Service, special attention should be paid to whether the applicable tax treaty includes industrial, commercial or scientific equipment. Additionally, attention should be paid to whether this form of cloud computing is deployed as private cloud computing, especially in the more unusual situation where it is deployed on the premises of the cloud user. In such situations, it cannot be precluded that (a part) of the payment is classified as royalty. Finally, it is concluded that it cannot be completely disregarded that Infrastructure-as-a-Service that is deployed as private cloud computing, may be classified as capital gains under Article 13 of the OECD Model (2017), although this is concluded to be an uncommon exception to the general rule.

Consequently, it is concluded that most income generated from the provision of software-based products is classified as business income under Article 7 of the OECD Model (2017). This finding is based on

illustrative analyses of payments for cloud computing provided as a service, payments for mediation services provided by intermediary platforms, and capital raised through the issuance of utility tokens (representing the right to a prepaid future software-based product) in an ICO. The classification as business income implies that the taxing right to income generated from the provision of such products and services is exclusively allocated to the domicile state unless the income is attributable to a PE.

While it is established that the most important classification issue regarding income generated from the provision of software-based products and services is typically the distinction between business income and royalties, the classification issues cannot be limited to this distinction. Exemplified by capital raised through the issuance of equity-tokens and debt-tokens, the digitalization of the economy may also actualize the classification challenges known from the classification of "traditional" hybrid financial instruments and the return realized from the investments in such instruments.

With respect to the capital raised through an ICO, classification for tax treaty purposes will most likely not be relevant in respect of capital raised through the issuance of debt tokens. This is provided that the payment from the ICO investor is offset by an obligation of the ICO issuer to repay the loan so that there is no net increase in economic power of the ICO issuer, i.e., such capital will typically not be considered taxable "income" for domestic tax purposes and will consequently not be within the scope of tax treaties. On the contrary, capital raised through issuance of equity tokens may be subject to divergent domestic practices in respect of the distinction between income and capital receipts. However, in this dissertation, it is argued that capital raised through the issuance of equity tokens is most likely classified as capital gains under Article 13(5) of the OECD Model (2017). Accordingly, only the residence state of the ICO issuer can tax the capital that is raised, assuming that the capital gains cannot be attributed to a PE of the ICO issuer. This conclusion is based on the perception that, in the context of a business life cycle, this results in extraordinary enrichment from the sale of economic rights.

With respect to the return on investors' investments in ICOs, it is concluded that, in the arguably most common situation, a contingent return on investment in equity tokens – not treated in the same way as return on shares for domestic purposes in the source country – cannot be classified as dividends under Article 10 of the OECD Model (2017). The arguments for this conclusion are: Firstly, applying a more strict interpretation of "corporate right" (i.e., the ICO investor must share "the entrepreneurial risk" including any profit of the issuer) under Article 10(3) of the OECD Model (2017) and considering that investors in equity tokens are typically not entitled to liquidation proceeds; secondly, return on investment in equity tokens is typically not dependent on *any profit of the ICO issuer* but instead, e.g., dependent on the revenue from a specific product and not on other sources of revenue of the ICO issuer; and thirdly, that return from equity tokens are typically not subject to the same tax treatment as income from shares under the laws of the domicile state of the ICO issuer.

With respect to the ICO investor's return from investment in debt-tokens, this may be classified as interest under Article 11(3) of the OECD Model (2017) only if there is a legal obligation (valid and economically enforceable) between the ICO issuer and the investor to repay the capital and the payment for lending the capital. In other words, a contingency can never exist in respect of the repayment right in terms of the face value of the amount invested. It shall be based on a case-by-case assessment whether the specific rights and obligations under an ICO impose a legal obligation upon the ICO issuer to repay the loaned funds and thereby whether the return may be classified as interest implying a shared taxing right.

On this basis, it is concluded that, if return from investments in ICOs is not classified as interest under Article 11(3) of the OECD Model (2017), such a return is most likely classified as "other income" under Article 21 of the OECD Model (2017). Therefore, it is exclusively taxable in the domicile state of the ICO investor unless the return is attributable to a PE. Further, it is concluded that the classification as "other income", to a greater extent will be the appropriate classification if compared to the classification of a return from more "traditional" (hybrid) financial instruments. However, favoring harmonized interpretation and considering the disintermediating and inclusive features of blockchain technology (enabling micro-investors in ICOs) as well as the issuer typically being in the very early-stage of a project, additional guidance is recommended. The guidance should limit the negative effects from micro-investors and start-ups being less likely to have the knowledge and financial capacity to comply with ambiguous and complex tax rules.

What becomes apparent based on the conclusions from analyzing illustrative examples of digital technologies in this dissertation is that most income generated from the provision of digital products and services are generally not subject to shared taxing rights under the OECD Model (2017). Instead, it is only taxable in the domicile state of the recipient unless the income is attributable to a PE.

This increases the importance of the widely repeated presumption that some (highly digitalized) businesses can perform activities closely linked to a jurisdiction without needing to establish a physical presence, i.e., without the need to incorporate a subsidiary or create a PE. It is concluded in this dissertation that while the presumption may hold true, it cannot be described in a single sentence covering all business models. The reality is much more complicated and fact-dependent than what seems to be the case if relying on the simplified presumption. It is reasoned that, in all of the business models that are typically characterized as "highly digitalized business models", it is possible to conduct remote sales, however, their need for physical presence in their non-domicile states varies.

It is concluded that the implementation of the BEPS Action 7 recommendations has affected highly digitalized business models by lowering the threshold for creating a taxable presence in a non-domicile

state. More specifically, highly digitalized businesses seem to rely on regional representatives providing customer support services as well as sales and marketing activities. If the operational principal's employees are present in a non-domicile state, a PE may be created if there is a fixed place of business at the principal's disposal, and it is unlikely that the sales-related activities that are performed will be of a preparatory or auxiliary character. Further, the anti-fragmentation rule implies that, even if auxiliary or supportive customer support and marketing activities are not carried out at the same location as the sales-related activities, these activities will unlikely be considered of an auxiliary or supportive character in most highly digitalized business models. This is provided that the activities are performed in the same non-domicile state and constitute complementary functions that are part of a cohesive business operation. While it is argued in this dissertation that this should be understood as functions that are part of the same value chain, further guidance on what constitute "complementary functions that are part of a cohesive business operation" is recommended.

Further, even if the operating principal does not have a fixed place of business at its disposal, the local representatives could, because of its sales-related activities, be deemed dependent agents as a strict literal interpretation of dependent agents who habitually exercise "the authority to conclude contracts in the name of the principal" is prevented. Accordingly, if dependent persons conclude contracts in the name of the principal or play the principal role leading to the conclusion of contracts regarding the digital products and services provided by the principal, this will create a deemed PE under Article 5(5) of the OECD Model (2017). Similarly, a dependent commissionaire should under this article be deemed a dependent agent. On the contrary, a local representative with a functional profile of an actual reseller will unlikely constitute a PE of the principal. Considering the subjective nature of whether a person "play the principal role" and that a harmonized interpretation is favored, it is recommended that additional guidance is provided in the OECD Commentaries.

In addition, to the taxable presence in non-domicile states based on local representatives, cloud computing service providers and online retailers selling physical goods both depend on some physical presence close to their markets in the form of either server farms or warehouses. It is concluded that, if the operational principals themselves own and operate the server farms or warehouses, these activities will create a PE in the non-domicile state as the activities carried out cannot be considered of a preparatory or auxiliary character in the said business models. Accordingly, it is concluded that the economic substance test implemented, as recommended under BEPS Action 7, prevents a strict literal interpretation of the preparatory or auxiliary requirement for the activities listed in Article 5(4) of the OECD Model (2017).

On the contrary, it is concluded that none of the highly digitalized business models will create a PE for the principal through users and customers because there will not be a fixed place of business at the

principal's disposal. Further, neither users nor customers can be deemed dependent agents because they are not acting on the principal's behalf.

Consequently, it is deduced that, generally, all local activities (other than users and customers) will typically create a taxable presence in what is typically referred to as highly digitalized business models. This implies that these source states are allocated a taxing right to business income in accordance with the arm's-length principle. However, considering that the functions performed in the non-domicile state may be of a limited nature, only limited remuneration can be expected, although market states may perceive that as not enough. If that is the case, the discussion involves not so much as a nexus as profit allocation.

Nonetheless, the recent proposals presented by the Inclusive Framework and the UN focus not only on increasing profit allocation to non-domicile states with a taxable presence under the current international tax rules but also to allocate new taxing rights to what is considered the market jurisdictions. The new taxing right proposed by the Inclusive Framework is based on non-resident multinational enterprises' "value creation" in the market states. However, the two proposals proposed by the UN (one now adopted, and one now rejected) focus on payments paid to the non-resident multinational enterprises "arising" in the market states. Nevertheless, in this dissertation it has been problematized that the principles for justifying such new taxing rights have not been clearly articulated by neither the Inclusive Framework nor the UN.

In the strive for a coherent international tax system; it is concluded in this dissertation that an amendment of the current international tax regime – aiming at allocating more taxing rights to income from the provision of digital products and services to market states – should be justified by the principle of ability to pay and economic allegiance. A principle-based approach also implies that any amendments should not be targeting industry-specific businesses or fact-specific services as the scope will likely be arbitrary and violate the principle of neutrality. Further, such targeted amendments are unlikely to stand the test of time. More specifically, it is argued that the international tax system should allocate a proportion of a business' ability to pay to the jurisdictions where this proportion of the ability is created without risking international double taxation or double non-taxation of the business. Accordingly, this interpretation of equity includes the ability to pay principle which may serve as a common frame of reference for determining the income to be allocated while also respecting the redistributive goal of taxation.

It is concluded that, if economic allegiance is interpreted to consider the digitalization and inherent dematerialization of the economy, this may justify that some taxing rights should be allocated to some market states currently left with no right to tax. More specifically, users recurringly engaging with a foreign business in a way that the activities of the users become part of the "wealth production process"

of the business may justify allocation of a taxing right to this market state. Notably, this situation should be distinguished from that in which businesses only use customers as a (consumption) market where income is realized. On this basis, it is reasoned that the new nexus contemplated by the Inclusive Framework with respect to profit from online advertising and sales or other alienation of user data could be justified by the ability to pay principle incorporating economic allegiance where a proportion of the business' ability is created in the market states. However, while considered a simple entry criterion also balancing the administrative burden against the potential tax revenue, a revenue-based threshold is somewhat arbitrary and difficult to justify based on economic allegiance.

As an important concern of developing countries is simplicity for administrability purposes, the two amendments prepared by the committee under the UN on shared taxing rights to payments for automatic digital services and software – now accepted and rejected, respectively – are based on taxation where the payment arises. While this may be a relatively simple measure for allocating taxing rights to non-domicile states, it is concluded that this cannot be justified according to the principle of economic allegiance when software and automated digital services are created and provided in a market state but payment arises in another state. In such a scenario, it is argued that a taxing right may be allocated to a state while none of the factors comprising economic allegiance points to this state. Stated otherwise, these amendments may fail to actually allocate tax revenue to the market states and additionally constitute an unjustifiable "separate" tax system that is detached from the underlying principle and lacking economic reasoning.

Summary

This dissertation contains a legal dogmatic analysis of the allocation of taxing rights to cross-border income generated from the provision of digital products and services from a tax treaty perspective. The topicality of this subject is founded on the current digitalization of the economy which has been considered as enabling monetization in multiple new ways that raise questions regarding the rationale behind existing principles for allocating taxing rights.

The dissertation mainly consists of five articles written from 2018 to 2021 but is organized in three overall parts.

Part I outlines the background and motivation for this dissertation. Moreover, it presents the research questions and methodological standpoint.

While the OECD/G20 Inclusive Framework, supranational organizations, and individual countries have been working on updating the current international tax regime, it is uncertain whether and to what extent a consensus-based solution will be reached. Further, it is unlikely that such a solution will even address all of the identified legal questions that are subject to analysis. On this basis, it is mainly the currently applicable international tax regime that is subject to analyses in this dissertation. They are performed according to a legal dogmatic approach in order to establish the applicable law as it stands (*de lege lata)* out of the doctrine of legal sources. The primary focus in the analyses is the OECD Model Tax Convention on Income and on Capital from 2017 (hereinafter: the OECD Model (2017)). While the OECD Model (2017) has not been ratified in national law and therefore cannot be fully relied on by taxpayers and tax authorities, it has been the predominant model for negotiating bilateral tax treaties that are consequently based on largely similar policy and even language. Further, the OECD Model (2017) and its commentaries are often relied on by domestic courts when interpreting tax treaties based on the OECD Model (2017).

Additionally, this dissertation includes considerations *de lege ferenda.* These considerations focus on whether the law, as it stands, complies with the principles of neutrality and the ability to pay tax, and they also include discussions of and recommendations for improving legal certainty. Furthermore, these considerations also focus on why market states should be allocated more taxing rights according to the principles of ability to pay and economic allegiance and, finally, whether proposals recently discussed by the OECD/G20 Inclusive Framework and the UN adequately adhere to such justification.

Part II of this dissertation consists of five articles that have either been published or accepted for publication in international journals. In four of the articles, the subject of analysis is the allocation of

taxing rights to income generated from the provision of digital products and services which is chosen to exemplify and illustrate the identified legal questions.

In order to allocate taxing rights, initially, the relevant transaction has to be identified. Some of the interactions subject to analysis could, in principle, be regarded as barter transactions which are relevant for the purpose of allocating taxing rights according to the OECD Model (2017). This is exemplified by the interaction between intermediary platforms and their users for which there are no monetary means of exchange between the parties but "something else", such as user data, that have economic value. However, it is arguably neither practically possible nor justifiable to allocate taxing rights to tax users in the user jurisdictions in barter transactions where users supply data against access to platforms without monetary means of exchange.

Exemplified by the provision of cloud computing as a service, consideration may be paid under mixed contracts. The appropriate approach will then be to break down the payment and apply the appropriate treatment to the separate parts of the contract - unless a contract has *one* principal purpose, and *all* other parts of the contract are ancillary *and* largely unimportant. The determining factor for whether to apply unified taxation is arguably whether the services are "inherently linked", although it is uncertain how this should be understood. On the contrary, but similar to the "traditional" hybrid financial instruments, the appropriate approach for classifying cryptocurrencies, as issued through an initial coin offering, is the blanket approach. This implies that the tokens shall be classified and treated as either an interest-generating debt, a dividend-generating equity, or another income-generating asset based on whether the distinctive characteristics of the instrument are more debt-like, equity-like, or provide other economic rights.

When classifying the identified payments according to the OECD Model (2017), this shall be based on a thorough understanding of the specific transaction, including the specific terms of a contract. However, many transactions between businesses deploying highly digitalized business models and their users and customers are often related to certain software-based products and services. Exemplified by the issuance of utility tokens, cloud computing, and intermediary platforms, the most important classification issue that arises is arguably the distinction between business income and royalties, corresponding to Article 7 and Article 12 of the OECD Model (2017), respectively. Nonetheless, in the absence of a royalty definition that includes technical assistance or industrial, commercial and scientific equipment, payments for software-based products – and thereby many digital products and services – are likely to be classified as business income. This is because such payments often do not represent a consideration for the use of nor the right to use the software but rather the provision of a service using the software.

Further, exemplified by capital raised through the issuance of cryptocurrencies, the digitalization of the economy also actualizes classification challenges known from the classification of "traditional" hybrid financial instruments and the return realized from the investments in such instruments. If compared to previous research on "traditional" hybrid financial instruments, the return from investments in initial coin offerings is arguably, to a greater extent, classified as "other income" under Article 21 of the OECD Model (2017) – provided that the return should not be classified as interest under Article 11 of the OECD Model (2017). This is based on the finding that a contingent return on investment in equity tokens – not treated in the same way as return on shares for domestic purposes in the source country – cannot be classified as dividends under Article 10 of the OECD Model (2017).

In terms of whether a permanent establishment is created, the presumption that some (highly digitalized) businesses can perform activities closely linked to a jurisdiction without needing to establish a physical presence is arguably valid. However, it cannot be described in a single sentence covering all business models. The implementation of the BEPS Action 7 recommendations has affected highly digitalized business models by lowering the threshold for creating a taxable presence in a non-domicile state. Accordingly, all local activities (other than users and customers) will generally create a taxable presence of a highly digitalized business. This implies that states where the local activities are performed are allocated a taxing right to business income in accordance with the arm's-length principle.

Considering the allocation of taxing rights pursuant to the first four articles and recognizing the debate within the field of international taxation, the fifth article of the dissertation provides a legal rationale for why market states should be allocated more taxing rights. Further, it is argued that the international tax system should allocate a proportion of the businesses' ability to pay to the jurisdictions where this proportion of the ability is created without risking international double taxation or double non-taxation of the businesses. When assessing the solutions contemplated by the OECD/G20 Inclusive Framework and the UN according to these principles that arguably also underlie the current international tax regime, only the Pillar One Blueprint, contemplated by the OECD/G20 Inclusive Framework, may be justified (to some extent). This justification is based on a modernized interpretation of the principle of economic allegiance taking into account the digitalization and inherent dematerialization and servitization of the economy.

Part III summarizes the findings in each article for the purpose of answering the research questions on how the taxing rights to income from the provision of digital products and services are allocated under the OECD Model (2017). The section recapitulates why more taxing rights to income from the provision of digital products and services should be allocated to market states as well as whether the proposals recently discussed adequately adhere to such justification.

It is concluded that most income generated from the provision of digital products and services is generally not subject to shared taxing rights under the OECD Model (2017) but instead only taxable in the domicile state of the recipient – unless the income is attributable to a permanent establishment. Further, if highly digitalized businesses have a physical presence, this will often create a taxable presence to which a taxing right should be allocated. However, their business may also, to some extent, be carried out remotely; a scenario in which the non-domicile states will not be allocated any taxing right to income from the provision of digital products and services under the OECD Model (2017).

Furthermore, it is concluded that the ability to pay principle and a modernized interpretation of economic allegiance may provide a legal rationale for why market states should be allocated more taxing rights to income from the provision of digital products and services. Finally, it is also concluded that neither of the UN's two proposals – one now adopted, and one now rejected – can be warranted whereas the solution contemplated by the OECD/G20 Inclusive Framework does seem justifiable to some extent.

Resumé

Denne Ph.d.-afhandling indeholder en juridisk retsdogmatisk analyse af dobbeltbeskatningsoverenskomsters allokering af beskatningsretten til grænseoverskridende indkomst fra levering af digitale produkter og tjenester. Aktualiteten af dette emne er begrundet i, at digitaliseringen af økonomien er blevet anset for at muliggøre indkomstgenerering på nye måder, der rejser spørgsmål vedrørende begrundelsen for de eksisterende allokeringsprincipper.

Denne afhandling er struktureret i tre overordnede dele, men består hovedsageligt af fem artikler skrevet i perioden fra 2018 til 2021.

Del I skitserer baggrunden og motivationen for denne Ph.d.-afhandling samt præsenterer forskningsspørgsmålene og den metodiske tilgang.

Mens OECD/G20 Inclusive Framework, supranationale organisationer såvel som individuelle lande har arbejdet med at opdatere det nuværende internationale skatteregime, er det usikkert, om – og i hvilket omfang – en konsensusbaseret løsning kan opnås. Desuden synes det usandsynligt, at en eventuel konsensusbaseret løsning vil adressere alle de identificerede juridiske spørgsmål, der analyseres i denne ph.d.-afhandling. På denne baggrund er det hovedsageligt det gældende internationale skatteregime, der analyseres. Analyserne udføres efter den retsdogmatiske metode med henblik på at fastslå gældende ret (*de lege lata*) baseret på den juridiske retskildelære. Det primære fokus i analyserne er OECDs modeloverenskomst (2017). Mens denne ikke er blevet ratificeret i national lovgivning og derfor ikke fuldt ud kan påberåbes af skatteydere og skattemyndigheder, har det været den dominerende model til forhandling af bilaterale og multilaterale dobbeltbeskatningsoverenskomster, hvorfor disse, som følge heraf, ligeledes er baseret på samme principper og endda samme sprog som OECDs modeloverenskomst (2017).

Derudover inkluderer denne afhandling overvejelser om *de lege ferenda*. Disse overvejelser fokuserer for det første på, hvorvidt gældende ret overholder principperne om neutralitet og skattebetalingsevne, såvel som diskussioner af og anbefalinger til forbedring af retssikkerheden. For det andet, hvorfor markedsstaterne bør tildeles mere beskatningsret i henhold til principperne om skattebetalingsevne samt økonomisk tilhørsforhold (EN: economic allegiance), og endelig om de forslag, der for nylig er blevet drøftet af OECD/G20 Inclusive Framework og FN overholder disse principper.

Del II af denne afhandling består af fem artikler, der er publiceret eller accepteret til publikation i internationale tidsskrifter. I fire af artiklerne analyseres allokeringen af beskatningsretten til indkomst fra

levering af visse digitale produkter og tjenester, som er valgt for at eksemplificere og illustrere de identificerede juridiske spørgsmål.

Ved allokering af beskatningsretten skal den relevante transaktion indledningsvis identificeres. I den henseende kan nogle af de interaktioner, der analyseres – i princippet – anses for byttetransaktioner, relevante ved allokering af beskatningsretten efter OECDs modeloverenskomst (2017). Dette eksemplificeres ved interaktionen mellem platforme og deres brugere, hvor der ikke er nogen monetær udvekslingsmåde mellem parterne, men "noget andet" såsom brugerdata, der har økonomisk værdi. Imidlertid synes det hverken praktisk muligt eller berettiget at tildele en beskatningsret til at beskatte brugere i en byttehandel i brugerjurisdiktionerne, hvor brugere leverer data mod adgang til platforme - uden monetær udveksling.

Eksemplificeret ved levering af cloud computing kan betalinger betales under blandede kontrakter, og den passende tilgang vil i denne situation være at opdele betalingen og undergive de separate dele den korrekte skattemæssige behandling – medmindre en kontrakt har ét åbenbart hovedformål *og alle* andre dele af kontrakten er underordnet og stort set ubetydelige. Den afgørende faktor for, hvorvidt en kontrakt skal underlægges samlet beskatning, synes at være om kontraktdelene er "inherently linked", selv om det er usikkert, hvordan dette nærmere skal forstås. Derimod, men i lighed med "traditionelle" hybride finansielle instrumenter, er den korrekte tilgang til klassificering af kryptovaluta, udstedt ved en initial coin offering, et integrationsprincip også kaldet ”blanket-approach”. Dette indebærer, at de udstedte tokens skal klassificeres og behandles som enten rentegenererende gæld, udbyttegenererende egenkapital eller andet indkomstgenererende aktiv baseret på, om instrumentets karakteristika er mere gældslignende, aktielignende eller giver andre økonomiske rettigheder.

Ved klassificering af de identificerede betalinger i henhold til OECDs modeloverenskomst (2017) skal dette baseres på en detaljeret forståelse af den specifikke transaktion, herunder de specifikke vilkår i en kontrakt. Imidlertid er mange transaktioner mellem virksomheder, som opererer gennem højt digitaliserede forretningsmodeller, og deres brugere, samt kunder ofte relateret til visse softwarebaserede produkter og ydelser. Eksemplificeret ved utility tokens, cloud computing og platforme, synes den væsentligste klassifikationsudfordring at være sondringen mellem fortjeneste ved forretningsvirksomhed og royalties under artikel 7 henholdsvis artikel 12 i OECDs modeloverenskomst (2017). I fraværet af royalty-definitioner, der inkluderer "teknisk assistance" eller "industrielt, kommercielt og videnskabeligt udstyr", vil betalinger for softwarebaserede produkter – og dermed mange digitale produkter og ydelser – sandsynligvis ikke skulle klassificeres som royalties. Dette skyldes, at sådanne betalinger ofte ikke er for brugen af eller retten til at bruge softwaren, men i stedet for levering af en ydelse ved brug af software.

Yderligere, eksemplificeret ved kapital rejst ved udstedelse af kryptovaluta, aktualiserer digitaliseringen af økonomien også klassifikationsudfordringer, der er kendt fra klassificeringen af "traditionelle" hybride finansieringsinstrumenter og det afkast, der realiseres fra investeringerne i sådanne instrumenter. Såfremt der foretages en sammenligning med tidligere akademiske studier af "traditionelle" (hybride) finansielle instrumenter, synes afkast fra investeringer i initial coin offerings i højere grad at skulle klassificeres som "anden indkomst" i henhold til artikel 21 i OECDs modeloverenskomst (2017) - forudsat at afkastet ikke skal klassificeres som renter omfattet af artikel 11 i samme modeloverenskomst. Dette skyldes, at et betinget afkast fra investering i equity tokens – som ikke behandles som afkast fra aktier i kildelandet – ikke kan klassificeres som udbytte omfattet af artikel 10 i OECDs modeloverenskomst (2017)).

Med hensyn til, om der kan statueres et fast driftssted, synes der at være en formodning for, at nogle (højt digitaliserede) virksomheder kan udføre deres aktiviteter tæt knyttet til en jurisdiktion uden at være skattemæssigt til stede i denne jurisdiktion. Dette synes dog ikke at kunne beskrives i én enkelt sætning, der dækker alle forretningsmodeller. Implementeringen af BEPS Action 7-anbefalingerne har påvirket højt digitaliserede forretningsmodeller ved at sænke tærsklen for at skabe en skattemæssig tilstedeværelse i en stat, hvor selskabet ikke har skattemæssigt hjemsted. Således vil alle lokale aktiviteter (undtagen brugere og kunder) generelt statuere en skattemæssig tilstedeværelse for højt digitaliserede virksomheder. Dette indebærer, at stater, hvor lokale aktiviteter udføres, tildeles en beskatningsret til fortjeneste ved forretningsvirksomhed fastsat i overensstemmelse med armlængdeprincippet.

Baseret på allokeringen af beskatningsretten efter gældende ret – som udledt i de første fire artikler – samt anerkendelsen af debatten inden for international beskatning, analyseres det i den femte artikel, hvorfor markedsstater, funderet i et juridisk rationale, bør tildeles en større del af beskatningsretten. Der argumenteres i denne artikel for, at det internationale skattesystem skal allokere en andel af virksomhedernes skattebetalingsevne til de jurisdiktioner, hvor denne andel af evnen er skabt uden at risikere international dobbeltbeskatning eller dobbelt ikke-beskatning af virksomhederne. Når de løsninger, der er overvejet af OECD/G20 Inclusive Framework og FN, i henhold til disse principper, som også synes at ligge til grund for det nuværende internationale skatteregime, kan kun Pillar One Blueprint, som udarbejdet af OECD/G20 Inclusive Framework, i nogen grad være berettiget. Dette er baseret på en moderniseret fortolkning af princippet om økonomisk tilhørsforhold, hvor der tages højde for digitaliseringen og den heraf følgende dematerialisering og servitisering af økonomien.

Del III opsummerer konklusionerne i hver artikel med det formål at besvare forskningsspørgsmålene, der vedrører, hvordan beskatningsrettighederne til indkomst genereret ved levering af digitale produkter og ydelser fordeles under OECDs modeloverenskomst (2017), og hvorfor en større del af beskatningsretten til indkomst, fra levering af digitale produkter og ydelser, bør tildeles markedsstater, samt om de for

nyligt drøftede forslag i tilstrækkelig grad overholder en sådan begrundelse og dermed kan retfærdiggøres.

Det konkluderes, at de fleste indtægter fra levering af digitale produkter og ydelser generelt ikke er underlagt delt beskatningsret under OECDs modeloverenskomst (2017), der i stedet tildeler domicilstaten den eksklusive beskatningsret - medmindre indkomsten kan henføres til et fast driftssted. Hvis højt digitaliserede virksomheder har en fysisk tilstedeværelse udenfor domicilstaten, vil det ofte skabe en skattepligtig tilstedeværelse, hvortil en beskatningsret skal allokeres. Sådanne virksomheders forretning kan dog også til en vis grad udføres uden fysisk tilstedeværelse i markedsstaten, i hvilket scenarie markedsstater ikke tildeles nogen beskatningsret til indkomst fra levering af digitale produkter og ydelser i henhold til OECDs modeloverenskomst (2017).

Derudover konkluderes det, at princippet om skattebetalingsevne og en moderniseret fortolkning af økonomisk tilhørsforhold bør give en juridisk begrundelse for, hvorfor markedsstater skal tildeles en større del af beskatningsretten til indtægter fra levering af digitale produkter og ydelser. Endelig konkluderes det, at ingen af FN's to forslag – et nu vedtaget og et nu afvist – kan retfærdiggøres, hvorimod den løsning, som OECD/G20 Inclusive Framework overvejer, i nogen grad kan retfærdiggøres.

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