The Impact of Technologies on Emerging Tax Policy Issues

Digital Economy Taxation Network (DET) Conference hosted by

WU Global Tax Policy Center at

Vienna University of Economics and Business (WU)

ANNOTATED Program

December 12-13, 2022

Location: Ceremonial Hall 2, LC Building, Vienna University of Economics and Business

Institute for Austrian and International Tax Law Vienna
WU Global Tax Policy Center

DET

WIRTSCHAFTS UNIVERSITÄT WIEN VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS

Digital Economy Taxation Network Partners

Sessions indicated in Central European Time [CET]

DECEMBER 12, 2022		
09:00 - 09:15	**Opening remarks**: Jeffrey Owens (WU GTPC) and Chiara Bronchi (WB)	
09:15 – 10:45	**Session 1:** **New technologies and old tax systems: from adaption to transformation**	**Keynote Speaker:** Paul Brody (EY, Global Blockchain Leader) **Panel:** - Chiara Bronchi (WB) - Mike Williams (HM Treasury) - Marcio Verdi (CIAT) **Open debate** **Chair:** Jeffrey Owens (WU GTPC) **Reference document:** *Digital Economy Taxation Network: A Global Alliance to Promote Digital Tax Transformation* Owens, J., Sabina Hodžic´, S., *Blockchain Technology: Potential for Digital Tax Administration*

Issues for Discussion

- How industrial revolutions led to changes in the tax base of jurisdictions?
- How have policy makers in the past responded to this phenomenon in the past (e.g. from land to income taxation)?
- Should policy makers rethink the tax base in the context of ever increasing services that are provided for no monetary compensation (i.e. are 'free') but for compensation 'in kind' that is difficult to put a price-tag on (e.g. data)?
- How to deal with the fact that in the modern economy the marginal cost approaches zero?
- In such dramatically changed economic landscape, how can we apply the traditional concept of value creation and attribution of taxing rights between jurisdictions?
- Will this lead to shift in the balance of power between tax administrations and taxpayers as well as the balance of power between nations?
- How will the Fourth Industrial Revolution transform the way that tax administration approach compliance?

Context for discussion

Each industrial revolutions led to significant changes in economic activity and, therefore, to the tax base that countries can rely upon. The first and second industrial revolutions from the 19th century and the beginning of the 20th century led to new manufacturing processes by means of machine tools and factory processes that have greatly increased productivity per square meter of land used. Hence, there was a shift in relative productivity between land and capital, consequently resulting in profound shifts in domestic tax systems: from taxation of land to taxation of income. The third industrial revolution from the mid-20th century until around the first decade of the 21st century brought the increased usage of computing power, the interconnectivity via the Internet, and the establishment of global value chains. This exacerbated the importance of intangible assets and posed significant difficulties in attributing taxing rights between the jurisdictions involved in the global value chain.

The Fourth Industrial revolutions is characterized by diminishing importance of the human factor with the wider-adoption of artificial intelligence, potential of radical and swift decentralization by means of the blockchain technology, and ever decreasing marginal costs allowing operators to offer services for no monetary compensation. All of these developments pose fundamental questions to the existing tax systems. Artificial intelligence questions the premise that value creation is ultimately related to people functions. The common endeavor in productive activity by what is ultimately unrelated and therefore decentralized private parties that the blockchain technology allows for is questioning not only the division of taxing rights but also the nature of those who are subject to tax. Finally, the decreasing marginal costs, lack of monetary compensation and the resulting difficulties in delimiting the transactional nature of things makes the accurate establishment of ability-to-pay as well as application of indirect taxes problematic. All of these developments require that tax policy makers rethink the existing tax systems and change the balance of power between tax authorities, taxpayers and between jurisdictions.

10:45-11:15	***Coffee Break***	
11:15 – 13:00	**Session 2:** **Using digital payments to address the shadow economy**	**Speakers:** Marek Rozkrut (EY) **Panel**: - Philip Mader (ICTD) - Fredy Guayacan (ILO) - Christos Kotsogiannis (TARC) - Rajul Awasthi (WB) **Open debate** **Chair:** Chiara Bronchi (WB) **Reference document:** EY, *Reducing the Shadow Economy in Albania through Electronic Payments*. Dybka, P., Kowalczuk, M., Olesiński, B. et al. *Currency demand and MIMIC models: towards a structured hybrid method of measuring the shadow economy*, Int Tax Public Finance (2019). Dybka, P., Olesiński, B., Rozkrut, M. et al. *Measuring the model uncertainty of shadow economy estimates*, Int Tax Public Finance (2022).

Issues for discussion

- What is the nature of the shadow economy and what is the scale of the problem?
- How do cash payments affect the shadow economy?
- Is the effect of cash the same for all unreported transactions?
- What is the role of electronic payments when consumers act as unwilling ‘accomplices’ in the non-reporting?
- Would Central Bank Digital Currencies (CBDCs) have an impact on combating the shadow economy?
- How should governments create measures that tackle the shadow economy whilst protecting honest actors from undue burden and not jeopardizing employment?

Context for discussion

The shadow economy has significant economic and social implications. Its adverse consequences include: a reduced tax base leading to lower quantity and/or quality of public goods, distortions in market competition, the degradation of economic and social institutions. A very important common factor for most types of shadow economy is that cash payments allow the seller not to report the transaction. With only a few exceptions, if an electronic payment is used instead of cash, it is different to register a transaction.

The shadow economy can be divided into two main components – the ‘passive shadow economy’ and the ‘committed shadow economy’. The ‘passive shadow economy’ (having also a significantly larger share between the two) relates to where the consumer is not benefiting from not reporting the transaction and might even be unaware of this fact. The source of the passive shadow economy are generally cash payments. The ‘committed shadow economy’, refers to instances where both parties to a transaction benefit from evading tax liabilities or engage in transactions to sell/buy illegal products or services. While cash payments still facilitate the committed shadow economy, they are not directly its source.

Understanding the nature and types of shadow economy is key to accurately delimiting the potential measures that may address it. In this sense, measures that restrict cash payments (e.g. mandatory possessing of a POS terminal for some businesses, making wage/social payments only via bank transfers/thresholds for consumer cash payments) are generally more effective in addressing the passive rather than the committed shadow economy. The committed shadow economy requires potentially a more comprehensive approach as it might circumvent some cash restrictions – e.g. have a cash payment above the threshold in another jurisdiction where no restriction exists, while in other instances does not require cash at all – e.g. utilizing offshore banks or perform transactions in cryptocurrencies on decentralized exchange platforms. In this context, it is important to understand how new technologies such as the Blockchain can contribute towards building tax systems that are based on the compliance by design principle thereby driving private parties in the formal economy.

13:00 - 14:30	***Lunch Break***

14:30 - 16:30	**Session 3:** **The future of labour taxation, the brain drain phenomenon and alternative sources of revenue**	**Speaker:** Svetislav Kostic (University of Belgrade) **Panel:** - Jonathan Leigh-Pemberton - Ivan Lazarov (WU) - Joy Ndubai (WU) **Open debate** **Chair:** Jeffrey Owens (WU GTPC) **Reference documents:** Kostic, *In Search of the Digital Nomad – Rethinking the Taxation of Employment Income Under Tax Treaties*, WTJ (2019). Kostic, *A Plea for a Workforce Presence PE Concept in Post-Covid Digitalized World*, Intertax (2021). Jousten et al, *Labor Taxation in the Western Balkan: Looking Back and Forward*, IMF (2022).

Issues for discussion

- Taxes on labor can account for significant tax revenues especially in developed countries: does the changing nature of labor markets risk undermining this source of revenues? Does tax competition affect personal income taxes? Which countries are most affected?
- What alternative sources of revenue are available?
- What is the dividing line between employment and self-employment? How self-employed individuals' tax compliance can be increased?
- How does remote working affect the local labor markets and countries revenue objectives?
- Can there be 'harmful' tax competition when it comes to personal income taxes?
- Are the international tax rules that govern taxation of employment/self-employment income apt for the realities of the 21st century?

Context for discussion

Personal income and payroll taxes form one of the most significant proportions in countries' tax revenue. However, the ever increasing mobility of high-skilled labor and high-net-worth individuals poses challenges not only to the capabilities of jurisdictions to raise revenue but also to their overall economic development and possibilities to develop high-value-added sectors of the economy such as R&D. Besides, in regional economic blocks that guarantee the unimpeded movement of workers such as the European Union also low-skilled labor is increasingly more mobile further straining the domestic wage tax base. Moreover, the gig-economy has led to moving away from formal employment and into self-employment where tax compliance is more difficult to ensure.

The ever increasing mobility of labor increases the tax competition in attracting/retaining labor force between jurisdictions. When engaging in this competition, countries need to strike a balance between their revenue objectives and their long-term visions for economic development. This is especially true for less developed countries that are still struggling to provide public goods that are perceived as adequate to the tax 'price-tag' they impose. Moreover, the

increasing possibilities for remote working triggered by the Covid-19 pandemic, decrease on the one hand the competitiveness of local employers in developing countries (that now need to compete with foreign employers without a physical presence that engage the local labor force remotely), while at the same time decreasing the wages in developed countries (where the local labor force competes with the 'cheaper' foreign remote workers). This comes hand-in-hand with an increasingly blurred lines between employment and self-employment, making it difficult to distinguish between genuine self-employment, false self-employment (de facto employment relationship) and grey cases where for instance there is relative independence but heavy reliance on a single client. **The above issues pose questions not only to domestic tax policy but also to the attribution of taxing rights principle under Double Tax Treaties.** In the context of remote working (where the wage costs will be deducted in a jurisdiction different from the one where the employee is resident) and mobile labor (where upon immigration the employee will be a resident but with very weak allegiance to the recipient country), the principle of taxation based on residence or significant physical presence by the employee seems outdated. Neither the benefit principle nor the political allegiance principle can unequivocally support the currently existing international tax rules.	
19:00 – 22:00	**Social Event – Dinner at Fuhrgassl-Huber (Traditional Viennese Restaurant)** **Sponsored by the Mayor of Vienna** Pick up of transfer in front of Bassena Hotel

<table>
<tr><th colspan="3">DECEMBER 13, 2022</th></tr>
<tr><td>09:00 – 10:30</td><td>Session 4:

Evolution of existing tax systems – applying new technologies to existing processes in making them more efficient</td><td>Speakers: Robert Risse (WU)

Panel:

- Peter Fettke (DFKI)
- Paolo Valerio Barbantini (Revenue Agency, Italy)
- Andrew Bohnet (Innovate Tax)

Open debate

Chair: Jeffrey Owens (WU GTPC)

Reference document:

Risse, Innovative Systems: Blockchain Technology, Lecture Charts</td></tr>
</table>

Issues for Discussion

- How to determine the appropriate technology to be applied by tax administrations, taking into account their maturity level?
- How tax authorities are applying AI in Europe?
- How to perform risk management by process mining?
- What is the importance of process mining as a newly invented technology to get a near real-time evaluating for tax compliance?
- What is the role of international and regional organizations in supporting or driving their Member States to evolve their tax systems in the digital age?
- Should there be a cost/benefit analysis taking into account the interest of businesses and how can data be obtained from the private sector more efficiently?

Context for discussion

Over the recent years, tax and customs administrations have incrementally adopted new technologies in their respective fields. While the approach has been mainly evolutionary rather than revolutionary, significant efficiency gains have been achieved by some jurisdictions.

At the same time, different countries are at a very stage of their digital maturity. Therefore, different technologies are being investigated and employed. Some jurisdictions have successfully deployed artificial intelligence or process mining for moving towards advanced risk based enforcement actions or even real-time evaluation for tax compliance. Other jurisdictions are at an early stage in the digitalization of tax processes. In this sense, there are significant lessons to be learned between jurisdictions (and even between different governmental authorities within the same jurisdiction). Such exchange will aid in determining the appropriate technologies to be applied by tax administrations, taking into account their digital maturity level.

Finally, the role of international organizations, such as the UN, OECD, WCO or regional organizations such as the EU, in aiding jurisdictions to deploy efficient and interoperable systems cannot be overstated. This role is especially prominent in areas of tax law with a cross-border element such as VAT, withholding taxation or custom duties. Same holds true for businesses that are eventually the source of data to be processed by tax administrations. In this sense, the increased

volume and data that businesses have to provide (and has its costs) needs to have a corresponding benefit at the level of governments that makes the whole exercise worth it.		
10:30-11:00	***Coffee Break***	
11:00 – 13:00	**Session 5:** **Platforms: the new tax collectors in the European context**	**Speakers:** Nevia Cicin-Sain (WU) **Panel**: - Barbara Edelmann (Bitpanda) - Miglė Kučnerė (Vinted) - Jan Loeprick (IMF) - Aleksandra Bal (Stripe) **Open debate** **Chair:** Jeffrey Owens (WU GTPC) **Reference document:** J. M. Vázquez and N. Čičin-Šain, *Tax Reporting Obligations imposed on Platforms in relation to Sellers in the Sharing and Gig Economy* in 'The Implications of Online Platforms and Technology on Taxation', IBFD GREIT Series (forthcoming). VAT in a Digital Age: Proposal by the EC

Issues for discussion

- What is the European experience in the role of intermediaries in tax reporting and collecting?
- How does this fit in the global debate? Should platforms become collection agents also for direct taxes?
- Is there space for unilateral domestic action by the Member States or the matter should be exclusively regulated at EU level?
- Is the EU framework effectively enforced against intermediaries, established in third-countries?
- What are the next steps and are there further sectors that the EU legislator should look at?

Context for discussion

Europe is taking the regulatory lead when it comes to relying on third-parties for tax reporting purposes. Several consecutive amendments of the Directive on Administrative Cooperation (DAC), namely what is referred to as: DAC 6 (that targets tax intermediaries such as tax advisors), DAC 7 (that targets online market places), and the upcoming DAC 8 (that will target exchange platforms for crypto-assets), all look at utilizing third parties with sufficient information on taxable events for the purposes of delivering high-quality data of taxable events to tax authorities. In the area of VAT, the EU framework goes even further than mere collection and exchange of information by deeming e-commerce platforms as 'suppliers' in B2C transactions when EU customers are involved leading to profound VAT obligations for such platforms that stem from that.

While the increasing reporting obligations aim to ensure tax transparency, if misplaced, they might also unduly undermine Europe's competitive position on the global market. This would be especially the case if intermediaries that are not established in Europe but compete with European companies fail to comply with the same obligations, even if de jure the rules are equally applicable. Moreover, if harmonization measures provide multiple options for the different Member States when it comes to implementation, do not harmonize sufficiently data standards or lead to overflowing tax administrations with information they have no technical capacity to reasonably process, then the regulatory burden on the intermediaries might outweigh the benefit of the increased transparency. In this sense, the international alignment of standards, both legal and technical, might be the key component to creating a level-playing field, as opposed to unilateral action by jurisdictions.

13:00 - 14:30	***Lunch Break***	
14:30 - 16:00	**Session 6:** **The role and future of tax governance in a digital tax environment**	**Speaker:** Irma Mosquera Valderrama (University of Leiden) **Panel:** - Nick Davies (ICC Centre for Digital Trade and Innovation); - Shakeel Khan(UK HMRC); - Edwin Visser(PwC) - Rajul Awasthi (WB) **Open debate** **Chair:** Jeffrey Owens (WU GTPC) **Reference documents:** OECD, *Tax Administration 3.0: The Digital Transformation of Tax Administration* Nogueira, *Tax Administration and Technology: From Enhanced to No-Cooperation?* in Digital Transformation of Tax Administrations.

Issues for discussion

- Which are the relevant stakeholders in establishing successful governance framework in a digital tax environment?
- Does the decentralized nature of Industry 4.0 change the relative influence of stakeholders?
- What are the center pillars of a potential governance framework?
- Should such a framework be pursued unilaterally, regionally or globally by countries?
- How can the tax community engage with the technology community in developing new governance frameworks?
- What might be the appropriate forum for a discussion between the stakeholders? What is the role of the DET in that?

Context for discussion

The question of the governance in a digital tax environment requires to establishing shared guiding principles, fundamental rules, procedures and technical standards that can be agreed upon by the relevant stakeholders. In the context of tax governance, these stakeholders are limited to the governments but also include the private sector, civil society organizations, as well as research and academic institutions. In this sense, and given the fact that the tax governance standards must deal also with substantive matters such as the self-restrained that public authorities should exercise in order to guarantee fundamental values such as protection of taxpayers' rights or the rule of law, it is not self-evident that inter-governmental organizations acting alone and without the active involvement of other stakeholders in designing the rules are best suited to provide the forum for such a discussion.

The digital tax governance requires the involvement of private actors and ecosystems for which it is not immediately obvious that the tax question matters. A good example in this regard is the cryptocurrencies and NFTs ecosystems. Therefore, engaging these communities requires finding an adequate and neutral forum. **Moreover, there is a need for a sound institutional framework in terms of the legitimacy of the outcomes.**

16:00 – 16:30	**Coffee Break**	
16:30 - 17:45	**Session 7:** **The new balance in the relationship between taxpayers and tax administration**	**Speaker:** Christina Dimitropoulou (WU) **Panel:** - Luisa Scarcella (ICC Centre for Digital Trade and Innovation) - Alix Perrignon de Troyes (IOTA) - Paolo Valerio Barbantini (Revenue Agency, Italy) **Open debate** **Chair:** Chiara Bronchi (WB) **Reference document:** Kuźniacki et al, *Towards eXplainable Artificial Intelligence (XAI) in Tax Law: The Need for a Minimum Legal Standard*, WTJ (2022).

Issues for discussion

- How automated tax enforcement changes the relationships between tax administration, taxpayers and the state and what does that mean for the tax governance model of the future?
- What is the key difference of a blockchain based automated decision making in tax processes and other AI-based automated decision making in the public sphere?
- How could automated tax enforcement be practically implemented in light of the nature of law and legal principles? What are the limits of transposing legal reasoning into computational logic?
- Is it possible/desirable to standardize legal rules? Would that mean the end of rules and standards and the introduction of the concept of formalization of law?
- How tax discretion is affected in a blockchain based automated tax enforcement and is there anything worrisome about it? How the Rule of Law would apply when tax assessment is issued by machines? What is the consequence of that in respect of taxpayers' procedural guarantees?
- What is the importance of tax coordination of tax administration's functions in the case of automated tax compliance at a cross border level and between tax and customs authorities within the same jurisdiction?

Context for discussion

The role of tax administration has been changing dramatically owing to the implementation of new technologies in almost every function and tax administrative process. Such transformation, especially in light of the automation possibilities it entails for the tax administration, requires a rethink of how the state will interact with taxpayers and whether traditional constitutional principles are still adequate to regulate those interactions. From the technologies that are likely to have the greater impact on the above relations, Blockchain ranks first when applying in use tax cases due its capability to automatically attribute tax consequences to the tax events recorded by it. Automatic self-execution of tax liability presupposes the subsumption of legal facts to the tax rules made by the Blockchain and not the tax administration. This raises significant issues firstly, at a conceptual level and secondly at a normative constitutional level. Conceptually, there is skepticism as to whether legal reasoning can be fully substituted by computational logic and whether law can be formalized to such an extent that it would be transposed into computer code for automating tax enforcement. Assuming that such a scenario is feasible, further issues arise from a constitutional point of view and specifically, the legality principle that governs tax administrations actions in most countries, namely the compliance of a blockchain based automated decision making with the rule of law (ROL).

The radical changes in the conception of law as we currently know it, have been already observed in the field of more general rule-making automation which has been considered to be the end of the distinction between rules and standards. However, choosing rules over standards that is thought to limit discretion promotes certainty and enforcement efficiency and leads to a healthier self-governance. But this does not translate into that any rule must be preferred over any standard. It is arguable whether for example, a GAAR can be replaced (or it is rather desirable to do so) by a list of economic arrangements that fall under what the GAAR aims to prevent and regulate. Such a choice is reflective of the general motives and goals of the tax legislature that do not exhaust themselves in revenue production but often aim at regulating behavior and mitigating economic inequality. Lastly, procedural guarantees and taxpayers' rights must be respected, namely a Blockchain based automated tax assessment must still be subject to the requirements of explainability so that it could be effectively contested in courts which further ensures transparency in the new governance model introduced by a blockchain based automated tax enforcement.

17:45-18:00	**Closing remarks:**	Jeffrey Owens (WU GTPC) Chiara Bronchi (WB)

To access background documents please scan QR code or follow the link below.

User name: GTPC
Password: DET2022

https://short.wu.ac.at/9jsz