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BOOK REVIEW

Taxation in the Digital Economy: New Models in Asia and the Pacific, edited by Nella Hendriyetty, Chris Evans, Chul Ju Kim, and Farhad Taghizadeh-Hesary

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I. Introduction: Defining 'Digital Economy'

In the OECD's Report for the G20 Digital Economy Task Force, 'digital economy' has been defined to cover "*all economic activity reliant on, or significantly enhanced by the use of digital inputs, including digital technologies, digital infrastructure, digital services and data. It refers to all producers and consumers, including the government, that are utilising these digital inputs in their economic activities*".[1] A variety of sectors, from production of computing hardware and software to specialised support services (*e.g.,* data hosting, computer programming, information technology consulting) as well as e-commerce, are covered within the sweep of this wide definition.

There is, of course, more than one definition of 'digital economy'[2]; the suitability of one definition over the other would depend on the purpose for which the term is employed. For understanding taxation of the digital economy, keeping the broadest set of transactions in consideration is useful from the perspective of framing policy, designing laws, and managing administration.

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1 OECD, 'A Roadmap toward a Common Framework on Measuring the Digital Economy-Report for the G20 Digital Economy Task Force' (2020) <www.oecd.org/sti/roadmap-toward-a-common-framework-for-measuring-the-digital-economy.pdf> accessed 20 January 2023.

2 For example, ADB, 'Capturing the Digital Economy-A Proposed Measurement Framework and its Applications' (2021) <www.adb.org/sites/default/files/publication/722366/capturing-digital-economy-measurement-framework.pdf> accessed 20 January 2023.

II. Research Focus of the Contributors to this Collection

The digital sphere of the economy includes economic activities that do not require firms to have a physical presence in the jurisdictions where such activities are performed. A firm located in state B may earn income by providing services in state C, without having any permanent establishment in the latter. For instance, a firm that operates a digital platform from state B may be receiving revenue from online advertising aimed at the platform users in state C. This presents a challenge for the tax authorities in state C. Existence of a permanent establishment in a jurisdiction is the conventional basis for assertion of taxing rights over the income earned from that jurisdiction. Where such a nexus is absent, the legacy tax laws do not provide a basis for levy and collection of tax.

Multilateral and unilateral approaches for responding to this challenge of digitalisation is one of the central themes addressed in the research work published in *Taxation in the Digital Economy - New Models in Asia and the Pacific*. Chapter 3 of the book provides an overview of a variety of measures adopted by states - (i) VAT/GST on digital services transactions in line with OECD's suggestions for simplified registration and compliance regime, (ii) income taxation based on significant economic presence, (iii) withholding tax, and (iv) turnover tax. The authors of this chapter are part of the Fiscal Policy Agency of Indonesia's Ministry of Finance and have detailed the tax position in Indonesia. OECD's two-pillar approach for taxing the digital economy has also been discussed. In addition, there are country-specific case studies - Chapter 5 (China), Chapter 7 (India), and Chapter 10 (Indonesia) - that provide information about tax reforms in the respective jurisdictions geared towards the digital economy.

The other theme around which the research contributions are organised is the use of technology - biometric identification, chatbots, robotic process automation, data analytics, machine learning models, artificial intelligence ('**AI**') - for the purposes of tax administration. A consistent line of reasoning adopted in this book is that 'digitalization' of tax administration will reduce administrative costs of tax authorities as well as compliance costs of firms (refer section III below for comments). Chapter 2 of the book describes the types of technological tools employed in different jurisdictions, with a special focus on advantages of using AI for tax administration as well as issues that impede its adoption. Several country-specific case studies provide relevant details on adoption of technology in tax administration. For instance, Chapter 6 examines blockchain and its implications for tax administration in China, Chapter 9 reviews the neo tax integrated system and other initiatives adopted in South Korea, and Chapter 11 studies the nascent shift towards use of technology in tax administration by the National Board of Revenue in Bangladesh.

There is considerable institutional and academic scholarship on the subject of taxation of digital economies. *Taxation in the Digital Economy*, over the span of thirteen chapters, offers a ready reference to the manner in which tax authorities in the Asia-Pacific region are responding to the challenge presented by digitalisation of economic activities. It brings together possible models (design, benefits, and limitations) along with jurisdictional experiences from the region, and makes it openly accessible, which will benefit researchers.

Based on my reading of the descriptions, arguments, and prescriptions on the second theme (technology and tax administration), I feel it is necessary to highlight additional considerations that need to accompany views on the matter.

III. Digitalisation of Tax Administration – Impact on Compliance Costs

> *"Whatever stage a country finds itself at, there is little doubt that digitalization has the capacity to improve revenue authority processes and productivity significantly, enhance administrative efficiency, and reduce the compliance costs encountered by the business community as a result of the administration of taxation." (Excerpted from section I.4.2 in the Introduction)*

Adoption of technology for tax administration will require firms as well to incur costs on account of installation of IT infrastructure, advisory services from IT and tax experts, employment of skilled personnel (responsible for compliance) and their training. Such costs are front loaded and generally justified as an initial 'investment' that will lead to savings by the firm over the long term by removing the inefficiencies associated with manual recording and reporting.

This necessitates inquiry into - (i) the distributive implications of compliance costs; and (ii) the conditions that are required for savings to materialise in the long term.

A. Distributive Implications of Compliance Costs

Empirical studies (including by Chris Evans, a co-editor of this book) conducted across jurisdictions have revealed the regressive nature of tax compliance costs.[3] Simply put, the burden of these costs, relative to the

[3] For example, Binh Tran-Nam, Chris Evans, Michael Walpole and Katherine Ritchie, 'Tax Compliance Costs: Research Methodology and Empirical Evidence from Australia' (2000) 53 National Tax Journal 229; Chris Evans, Phil Lignier, Binh Tran-Nam, 'Tax Compliance Costs for the Small and Medium Enterprise Business Sector: Recent Evidence from Australia' (2013) Tax Administration Research Centre Seminar, University of Exeter Business School <https://tarc.exeter.ac.uk/media/universityofexeter/businessschool/documents/centres/tarc/publications/discussionpapers/13_09_24_Evans_Tax_compliance_costs_in_SMEs_Exeter.

turnover, is highest for micro firms and lowest for large firms. The key reason for this regressive-ness is that tax compliance entails certain minimum fixed costs (such as those stated above) that all firms have to incur irrespective of scale of the business. It follows that the costs of transitioning to a new method of compliance (when insensitive to scale) will also be regressive.

Moreover, there is a distinction between cost implications for firms that are merely required to switch to a new technology for undertaking compliance as opposed to the businesses on the margin, who cross the formalisation threshold for the first time. The impact of front loading of costs in this manner is the greatest for the latter. Such firms have the least capacity - not just in terms of finances but also skills and experience - to handle the complexity of tax compliances and technological platforms. This challenge is compounded by laws that allow harsh consequences in case of errors in compliance,[4] and attribute personal liability to business owners.[5]

Just as front-loading compliance costs, when indifferent to scale is regressive, so is the insensitivity between technical complexity of compliance and scale. The expectation that a marginal firm will be able to acquire scale invariant compliance expertise in the same way as a larger firm is perverse in a distributive sense.

Where revenue maximisation is presumed to be the natural objective of any taxation system, the efficacy of tax administration becomes an arithmetic of gross revenue collected less the costs of securing that revenue. When this calculus excludes compliance costs of taxpayers, tax authorities may become agnostic to the same. This creates a moral hazard as they are likely to shift administrative costs into compliance costs to be borne by taxpayers. Such an approach is unlikely to produce efficiency gains, where desired.

Distributive fairness in taxation is anchored on the principle of ability to pay. For that reason, tax rate structures are designed to be progressive (e.g., income tax) such that there is positive correlation between total tax liability

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pdf> accessed on 1 February 2023; S Vishnuhadevi and D Hima Bindu, 'Compliance Costs of GST for Small Business Enterprises in Tamil Nadu' (2022) Working Paper, Centre for Public Finance, Madras School of Economics <www.mse.ac.in/wp-content/uploads/2022/10/Working-Paper-229.pdf> accessed on 1 February 2023.

4 For example, the GST laws in India mandate that any movement of goods has to be accompanied with an e-way bill. E-way bills have to be generated by the consignor/consignee/transporter (as the case may be) through the government's GST portal by uploading the prescribed information. In case of any discrepancies/errors in e-way bills, tax officials detain the goods along with the vehicle and impose penalty, with taxpayers getting relief from the jurisdictional High Court. Facts of the matter in *KP Sugandh Limited v Commissioner SGST*, 2020 -VIL-142-CHG and *Umiya Enterprise v Assistant State Tax Officer*, 2020-VIL-50-KER are illustrative.

5 India's GST law allows for provisional attachment of any property including bank account of the taxable person and any other person who retains the gains arising from the disputed transaction or at whose instance the said transaction is undertaken. See, The Central Goods and Services Tax Act 2017, s 83.

for a period and the taxpayers income. Where a tax is inherently regressive (e.g., VAT/GST), considerations of equity lead to exemptions/reduced tax rates on goods of mass consumption. The burden of compliance costs must be similarly treated. While seemingly inevitable, compliance costs may well be interpreted as social costs which ought to be internalised. Directly/indirectly, compliance costs have the same effect as administrative costs on revenue collection. and for that reason, should be a part of the calculus.

In view of the above, any policy on digitalisation of tax administration should be clear on sharing of compliance costs; identifying the heterogeneity in taxpayer profile; and minimising the compliance burden on micro and small enterprises.

B. Savings in Compliance Costs

The anticipated savings in either administrative or compliance costs due to adoption of technology requires certain necessary conditions to exist. The policy, legislative and institutional regimes need to identify and address these conditions. Stability in the tax regime is one such condition. Frequent changes in tax obligations may require reconfiguration of compliance software which leads to recurring costs for the taxpayer[6]. Technical expertise of tax officials in using the technological tools and navigating through data submitted online is another important condition. Absence of the same may lead to additional requests for submission of same information in alternate forms, levy of tax/interest/penalty due to alleged non-compliance, and litigation. Other conditions include internet connectivity, internet upload/download speed, and power supply.[7]

Reference to these conditions is embedded in the jurisdictional experiences documented in the book by the contributors. In sum, it is advisable to remember that technology is only an instrument, and whether it achieves the target depends on the context/conditions of its use.

IV. Digitalisation of Tax Administration – Use of Artificial Intelligence

> "*Tax authorities should develop a strong artificial intelligence base and implement the most relevant artificial intelligence and machine learning tools to detect tax fraud and evasion.*" (Excerpted from section 2.5 in Chapter 2)

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[6] For example, Krishan Arora and Sachin Sharma, '5 ways India's newest reform, e-invoicing, has impacted SMEs' (*CNBC TV18*, 2 July 2021) <www.cnbctv18.com/economy/5-ways-indias-newest-reform-e-invoicing-has-impacted-smes-9861041.htm> accessed on 4 February 2023 ("*...due to frequent changes in invoice schema by the government, taxpayers are required to continuously alter their e-invoicing system*").

[7] ibid.

Shakil and Tasnia's prescription for employment of AI is built upon the identified need to process big data in order to successfully tackle tax fraud/evasion.

The primary concern with the use of AI in decision-making is algorithmic bias. The prospect of bias could be either due to the algorithm itself, or the dataset used to train the AI. Cathy O'Neil in her book 'Weapons of Math Destruction' addresses the distributive implications of such use of AI extensively. The moral hazard of selection bias and profiling not only puts our economic outcomes at risk, but also endangers our liberty and rights. Potential for abuse of biased algorithms and compromised data by public agencies under the pretext of national security and other laws cannot be ignored. Several instances of racial and identity-based profiling have been identified, leading to systemic discrimination and abuse of rights. The decision to train AI with data on observed behaviour and objective outcomes - without reference to the social or distributive justice context - has resulted in denial of access to credit to economically vulnerable people, and other inequities. These concerns need addressal within the context of tax administration as well.

However, the larger concern is not the inherent algorithmic bias or error, but the intent to abuse it for political ends and other special interests. Project Insight, implemented in 2019 by the Indian income tax authorities, employs big data analytics without transparency on source and type of data collected, as well as use and access to such data. This amounts to a surveillance regime which acts as a panopticon. The fear of being constantly watched will have an inhibiting and modifying effect on people's behaviour, amounting to self-censorship and curtailment of liberties. This threat is exacerbated significantly when there is a reasonable case that the government in question may abuse the data collected by this surveillance mechanism for political ends. There is an observed trend in selective use of laws (especially those pertaining to economic offences) against political opponents, and critics and dissidents. Recent income tax 'surveys' by the tax authorities in India against news organisations, think-tanks and charitable bodies are illustrative. The scope for abuse arises from absence of constitutional and legal safeguards against misuse of data collected for a specific purpose, which is a gap in the accountability framework[8].

In making a prescription, the effects of the suggested intervention/decision have to be considered as a whole. Efficiency in detection of tax fraud/evasion and the consequent improvement in tax collection are not the only possible outcomes of public agencies employing AI. There are implications for rights, justice, and distribution that need to be accounted for. Disregarding this complexity and interdependence makes for limited explanatory and predictive powers, while leading to unintended consequences.

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[8] 'India: Data Protection Bill Fosters State Surveillance' (Human Rights Watch, 22 December 2022) <www.hrw.org/news/2022/12/23/india-data-protection-bill-fosters-state-surveillance> accessed on 18 February 2023.