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Rethinking Taxation in the Digital Economy

Emerson S. Bañez



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Rethinking Taxation in the Digital Economy

Emerson S. Bañez

PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

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Abstract

The study aims to evaluate the country's legal framework for taxing digital transactions. Specifically, the extent to which the provisions of the law can map onto the value of digital markets. Based on the findings on the structure of the digital commerce value chain, and its possible interactions with both current and proposed tax regimes, four policy prescriptions are recommended. First, to optimize existing tax authority over platforms. Second, to have a digital-ready tax administration. Third, to have an expanded scope for investigation and liability. Finally, to have an engagement at the international level. Non-resident providers are the ones that have gained the most from digital markets while minimizing the tax impact of their activities. The Philippines should continue to explore multilateral options for the reallocation of taxing rights as well addressing BEPS. These include regional tax treaties and the OECD framework treaty. Efforts at negotiating and crafting the provisions should take into account the Philippines' trading power relative to other countries, and its comparative ability to exercise jurisdiction.

Keywords: digital taxation, taxes, digital commerce, tax law, tax administration

Table of Contents

1	Introduction	1
2	Review of Related Literature	2
2.1	Overview of the Problem	2
2.2	Legal Principles	3
2.3	Proposed Solutions	5
2.3.1	The OECD's 2-Pillar Solution	5
2.3.2	EU Approach	6
2.3.3	Developments in the US.....	8
2.3.4	UN Proposals	10
2.3.5	Work from Developing Economies	10
2.3.6	Developments in the ASEAN	12
2.4	Taxation of Digital Commerce in the Philippines	13
2.4.1	Existing Law	13
2.4.2	Recent Developments	15
3	Research Methodology.....	18
4	Data Collection and Analysis	22
4.1	Capturing actors and flows of value	22
4.2	Discovering network structure of actors and flows	27
4.3	Discovery of completeness of tax regime modalities.....	30
5	Findings and Recommendations	34
5.1	Centrality of platforms.....	34
5.2	Disparity of tax coverage	35
5.3	Recommendations for Reform.....	36
6	Annex A. Revenue Models for Online Businesses	43
7	Annex B. Sample Revenue Flow Analysis.....	45

List of Tables

Table 1. Proposed value chain model for digital economy	19
Table 2. Example use case for a revenue model (Sale and delivery of physical goods)	20
Table 3. Revenue models, implementation-based variations, examples	23
Table 4. Actors involved in the revenue model variation - “Purchase and delivery of tangible goods”	25
Table 5. Actors and flows of value involved in the revenue model variation - “Purchase and delivery of tangible goods”	26
Table 6. Adjacency matrix representation of the presence of flows of value in the revenue model variation - “Purchase and delivery of tangible goods” where r is any flow of value and $A_1...A_n$ is the set of actors participating in the value chain.	27
Table 7. Adjacency matrix representation of the robustness of tax regime in the revenue model variation - “Purchase and delivery of tangible goods” where r is any flow of value and $A_1...A_n$ is the set of actors participating in the value chain, where all parties are based in the Philippines.....	30
Table 8. Adjacency matrix representation of the robustness of tax regime in the revenue model variation - “Purchase and delivery of tangible goods” where r is any flow of value and $A_1...A_n$ is the set of actors participating in the value chain, where the online platform is based in the US	32

List of Figures

Figure 1. Graph representation of the presence of flows of value for “Purchase and delivery of tangible goods”	29
Figure 2. Weighted, directional network of value flows reflecting robustness of tax law applicable to the flow	33

Rethinking Taxation in the Digital Economy

*Emerson S. Bañez**

1. Introduction

The COVID-19 pandemic has turned the digital transformation of the Philippine economy from a project for competitive edge to one of existential proportions. Mobility restrictions and social distancing necessary to blunt the spread of the virus has made many transactions, grounded on physical presence and face-to-face interaction, impractical. The ability to deploy services online and maintain meaningful connections to markets through digital platforms has become a determinant for resilience. Digital technology not only provides continuity but can unlock new efficiencies and business models. The pivot to digital provides a look into the future of education, commerce and work that is both necessary and compelling. Betting on sustained growth of the sector, the government hopes to emphasize digitalization in development plans.¹

Although taxation of the digital economy has been on the government's agenda even before the pandemic, the cost of the pandemic response, as well as the need to finance recovery programs will drive an even greater need for revenue generation. The taxation of digital transactions offers a visible and readily available source of revenue. Beyond the need for immediate revenues, it is also an issue of development and equity. Users in the Philippines are often among the most engaged, either as users or creators in driving the value and network effects for stakeholders of these platforms, driving the value and network effects for stakeholders of these platforms, who are usually based in developed economies. Recent developments have also caused concern over the growing power of the tech sector and the negative externalities arising from their growth - such as the erosion of user privacy, the distortion of the information environment, and the polarization of public discourse.

National tax systems are straining to capture revenue from businesses in the digital economy. This is due to the fact that these businesses are characterized by the complexity of transactions, the absence of physical presence, and strong dependence on intangible assets.

This study aims to tackle the digital taxation problem in three parts. Part I will provide a comprehensive review of the literature regarding the taxation of the digital economy, as well as proposed solutions. This review will include similar digital tax measures proposed in other jurisdictions, noting which may be adapted to the Philippines. Part II will cover a gap analysis, based on the methodology provided below, of the Philippines' current tax regime for digital transactions. These gaps will be identified based on the tax regimes' ability to recognize and capture the flow of revenue from key online transactions. Finally, Part III will provide recommendations for developing and implementing a tax policy framework for the digital economy based on gap analysis and stakeholder feedback.

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¹ Diop, N., M. Warwick, H. Zaman, A. Fock, C.T. Niang, S. Coulibaly, and B. Hansl. 2020. Philippines digital economy report 2020: A Better Normal Under COVID-19 - Digitalizing the Philippine Economy Now (English). Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/796871601650398190/Philippines-Digital-Economy-Report-2020-A-Better-Normal-Under-COVID-19-Digitalizing-the-Philippine-Economy-Now>.

2. Review of Related Literature

2.1. Overview of the Problem

Businesses in the digital economy² have attributes that pose serious challenges to the current tax regime - 1) they can achieve large scale without taking on the mass of physical assets and inventory 2) reliance on intangible assets - such as intellectual property in the form of software and data.³ While these new business models erode the need for physical proximity to target markets, new technologies facilitate tax avoidance through the shifting of profits by multinational enterprises (MNEs) to low or no tax jurisdictions. Taxation of activities that constitute the digital economy is a hard problem, particularly because tax jurisdiction has traditionally been based on physical presence - either of the entity being taxed, or some component of the transaction itself.⁴

Taxation of the digital economy is a hard problem, particularly because tax jurisdiction has traditionally been based on physical presence - either of the entity being taxed, or some component of the transaction itself.⁵ For example, a common principle in bilateral tax treaties is that one is considered to have earned his income in the place where one is physically present (and so taxation rights are allocated based on physical location). Legal residence, usually defined in terms of length of regularity of stay in a jurisdiction, often serves as an index for physical presence. In the case of a corporation, a legal entity without a physical body that can be present in a jurisdiction, it is nevertheless deemed, through legal fiction, to have a physical presence (based on legal criteria of connection or nexus to the jurisdiction). The emphasis on physical presence is not just based on long-standing principles (such as the territoriality principle of law) or due process (power to compel based on notice is based on the actual ability to reach and apprehend a legal subject). For most states, physical presence enables meaningful exercise of jurisdiction for tax purposes. The physical presence of the taxable entity or its agent enables registration and identification, which then makes possible surveillance, actual collection of the tax due, and recourse in the event of non-compliance.

This study proceeds from earlier work from the Philippine Institute for Development Studies looking into the problem of taxation for the digital economy. Cuenca (2021) provides an extensive overview of the foundational components of the problem: 1. Defining the scope of the digital economy for the purpose of determining the activities and participants that can be subject to taxation; 2. The organization of the digital economy's participants into clusters of related businesses in a value chain. 3. Policy challenges encountered in constructing a responsive legal response. Although earlier work provided initial coverage of possible legal responses - the BIR's interpretative issuances draft bills, as well as the OECD's project on digital taxation, it left to future studies the task of interrogating the content and structure of these proposals, and how they may address gaps in existing tax policy. Building on this

² 'Digital economy' is defined as 'the global network of economic and social activities that are enabled by platforms such as the internet, mobile and sensor networks. See European Parliament. 2015. Directorate-General for Internal Policies, Policy Department A: Economic and Scientific Policy, Study for the Committee on Economic and Monetary Affairs (ECON), 'Challenges for Competition Policy in a Digitalized Economy. Pages 1-79. For a brief, interesting survey of social and economic aspects of the digital economy, see Tirole, J. *Economie du Bien Commun*, PUF (May 2016), pages 527-596 (chs. 15-16).

³ Huws, U. 2014. Labor in the global digital economy: The cybertariat comes of age *Monthly Review Press*: New York. "Digital business is more dependent on IP for creating value—the use of big data collected, diffused, stored, and analyzed—than traditional brick-and-mortar business. Monetization of big data plays a key role, and value creation no longer corresponds to the classic schemes."

⁴ Legal scholars have long recognized the growing crisis and the inevitable need for reform: Baez and Brauner (2019) - citing Kingson, C.I. 1996. The David Tillinghast lecture: taxing the future. 51 *Tax L. Rev.* 641, 644.

⁵ *Id.*

precedent, this study will delve into mechanisms of the law that can apply to the taxation of digital transactions, their limitations, and possible reform.⁶

The current approach to taxation of cross-border transactions is based on a network of bilateral treaties. Embedded into these treaties however are rules and concepts that have often become irrelevant with digital businesses. Digital business models provide opportunities to structure activities to make them more tax efficient (often at the cost of lowering tax bases in some countries).⁷ A digital service or product may not have a physical presence in this country, but the customers are present here and the revenues are generated here (“economic nexus”). A digital business can distribute its assets across multiple jurisdictions and structure its activities in a fragmented manner to enable tax-optimized location of profits, and use treaty shopping to avoid permanent establishment status to attribute the main part of profits to favorable jurisdictions.⁸ Even when a physical nexus exists, it does not have a presence that can make enforcement meaningful. The digital business can operate extensively within the country but require only a minimal footprint - e.g., a data center operated by a skeleton staff of engineers. The state can move against the assets in-country - the servers and network equipment in the data center. However, these assets are often commodified and represent only a fraction of the value held by the business. Most of the actual value held by the company would be intangible - the intellectual property in software and algorithms, as well as the data on users and transactions that have been encoded and processed by the company. Seizing the machines that house the data will not give the government both legal and practical means to extract this value. The problem becomes even more difficult when not only the medium of transaction is virtualized, but also key components such as 1) The currency being used as a medium of exchange, along with entities and intermediaries that enable payment and settlement and 2) The goods and services being purchased are also virtualized (in the case of digital goods, cloud services, and the delivery of digital content).

2.2. Legal Principles

A critical aspect of the problem springs from the practices of the multinational entities that operate digital businesses. These are legal but abusive employment of international tax loopholes, usually involving configuration of corporate structure (usually across borders, i.e., through the use of controlled foreign corporations) and their transactions in order to minimize tax impact:⁹

1. Moving tax domicile to a country with a more favorable tax rate (corporate inversion);

⁶ Cuenca, J.S. 2021. Emerging tax issues in the digital economy. PIDS Discussion Paper Series No. 2021-08. Quezon City, Philippines: Philippine Institute for Development Studies.

⁷ OECD. 2015. BEPS action 1 final report, ‘addressing the tax challenges of the digital economy. <http://dx.doi.org/10.1787/9789264241046-en>.

⁸ Medus, J.L. 2017. BEPS proposals to regulate digital business: critical comments. 28 J. INT'L TAX' No. 34, 36.

⁹ Yang, J and J.Z-H. Lee, and V. Metallo. 2019. Emerging tax issues in digitized internet commerce. *Journal of Internet Law New York* Vol. 22, Iss. 12, (Jun 2019): 7-17.

Serzo, A.L. 2020. Cross-border issues for digital platforms: a review of regulations applicable to Philippine digital platforms. PIDS Discussion Paper Series No. 2020-45. Quezon City, Philippines: Philippine Institute for Development Studies, p. 44. “Logistics hubs and local marketing arms may be set up in order to service Filipino consumers. Such arrangements may be structured by platforms such that the sales transactions occur offshore, and only fulfillment services are done locally. Since the sales are concluded offshore, the offshore platforms may avoid the payment of taxes arising from such transactions. The implementation of any of the three subtypes involves potential revenue loss for the Philippines government. These platforms would continue to earn from the Philippines market and Philippine consumers. However, the ability of the government to impose taxes and to enforce regulations are lost.”

2. Attributing otherwise taxable activities to a foreign corporation so that these will not be taxable under the jurisdiction as foreign source income;
3. Using intracompany transactions (transfer pricing for resources, payment of service fees, and loans below market interest rates) as a mechanism to shift income to a non-taxable entity.

In the absence of a comprehensive, multilateral treaty that will allocate taxing authority for cross-border transactions among states, multinational entities can continue arbitrage of the fractured international tax system in order to minimize, if not totally avoid, tax exposure. Many of these practices are clustered together under the concept of “Base erosion and profit shifting” (BEPS)¹⁰ - An artifact of globalization and the tension between the state’s taxation power and the need to encourage trade and investment¹¹. Globalization allows multinational companies to conduct their business in multiple jurisdictions, encouraging and facilitating trade and providing a source of tax revenue for governments. However, the conduct of business activities across multiple jurisdictions meant that they could be subject to “double taxation”, i.e., when more than one country levies a tax on the same stream of revenue from a single taxpayer,¹² discouraging international trade and eroding the government’s revenue sources. In order to address the issue of double taxation and encourage cross-border transactions, governments entered into bilateral tax treaties that provided relief for international businesses in the form of foreign tax credits, exemptions, and deductions. A broad and extensive network of bilateral tax treaties continue to be the basis for the taxation of international business transactions. Double taxation arises from the “conflict between one country claiming tax jurisdiction based on the income derived within its borders and another country claiming tax jurisdiction based on the residence of the taxpayer”. One primary mechanism through which bilateral treaties try to address the issue of double taxation is through the concept of a “permanent establishment” (PE), developed during a time when every business was necessarily a “brick and mortar” one - A PE is universally defined as, “a fixed place of business through which the business of an enterprise is wholly or partly carried on.”¹³ A corporation's income and profits will generally only be taxed in the country or countries where the corporation maintains a PE. The PE concept, however, was developed long before the evolution of the internet and e-commerce. As a result, digital corporations today may generate profits in more than one country but can avoid paying taxes in one or more of those countries because they do not maintain a PE or physical presence there. In other words, a country often does not have the requisite jurisdiction to impose taxes on internet-based corporations because a website or internet server is not categorically a “fixed place of business.” While tax treaties may provide initial resolution for two countries, systemwide issues may continue to persist. It should be noted that these treaties were developed amidst a background of states defining taxable income inconsistently. For example, while some countries adopted a territorial tax system, where tax is imposed solely on the income derived within its borders, while other countries, such as the United States, adopted a worldwide tax system, where tax is imposed on its citizens and residents regardless of where the income was derived. The inconsistency from state to state and the lack of an overarching international regime for cross-border transactions have allowed MNEs to exploit the divergence in tax systems in order to shift their profits from one country to another and then classify those profits

¹⁰ Beaudoin, S. 2020. Death & taxes or lack thereof: conflicting views of multinational corporate digital tax between the United States and European Union. *Suffolk Transnational Law Review* Issue 43, p. 129: 129–183.: “BEPS occurs when multinational corporations take advantage of disconnected international tax laws in order to shift income and profits to low-to-no tax jurisdictions, thus reducing overall tax liability.”

¹¹ *Id.*

¹² U.S. Tax System, 9 *Int'l Tax & Bus. L.* 101, 102. 1991. <https://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1108&context=bjil> (discussing issues with double taxation).

¹³ *Id.*

as foreign-sourced income. As a result, corporations take advantage of the relief mechanisms put in place to mitigate double taxation of foreign-sourced income and are able to reduce overall tax liabilities. This phenomenon, as well as the set of practices used to perpetuate it, has been called Base Erosion and Profit Shifting. BEPS is the erosion of a corporation's tax base, which is used to determine tax liability, and it is accomplished through a mechanism called profit shifting. Profit shifting occurs when corporations use sophisticated tax planning schemes to transfer income earned in one country to a different country that has little to no corporate income tax. BEPS is technically legal, but it has severe consequences for tax administrations worldwide.¹⁴

The problem of BEPS has long been present but is exacerbated by the shift to the digitization of the economy. The shift to digital platforms permits MNEs (usually resident in a developed country) to fully operate in developing countries, taking advantage of their markets without physical presence and hence without sufficient taxable presence. “The features of the digitalizing economy exacerbate base erosion and profit shifting risks and enable structures that shift profits to entities that escape taxation or are taxed at only very low rates.”¹⁵ Furthermore, a confluence of factors can allow MNEs to achieve rapid growth in economic power, and incentivize jurisdictions to engage in a race to the bottom competition that would erode their tax base.

2.3. *Proposed Solutions*

2.3.1. The OECD's 2-Pillar Solution

Over 135 countries have joined the OECD's “Two-Pillar Solution” with the intent of ensuring that multinational enterprises pay a fair share of tax wherever they operate. Pillar One involves the re-allocation of taxing rights - through revised profit allocation and nexus rules. This would re-allocate taxing rights over MNEs from their home countries to markets where they have business activities and earn profits, regardless of whether firms have a physical presence there. This prong of the OECD project hopes to resolve the following questions: What constitutes business presence even in activities without physical presence? Where tax should be paid and on what basis? What portions of profits should be taxed in the jurisdictions where customers/users are located.¹⁶ Under the latest version of the proposal, there will be 1) A formula for allocation of “above normal” profits to market countries, 2) A fixed taxable return on routine marketing and distribution activities, 3) New nexus rules based on revenue models, and 4) Mandatory rules for binding dispute resolution.

Pillar Two, on the other hand, involves the enactment of a global anti-base erosion mechanism. This seeks to put a floor on competition over corporate income tax, through the introduction of a global minimum corporate tax rate of 15 percent that countries can use to protect their tax bases. This hopes to help stop the shifting of profits to low or no tax jurisdictions facilitated by new technologies, ensuring a minimum level of tax is paid by multinational enterprises and leveling the playing field between traditional and digital companies.¹⁷

¹⁴ Lamers, S., P. Mcharo, and K. Nakajima. 2014. Tax base erosion and profit shifting (BEPS) and international economic law. Geneva, The Graduate Institute of International and Development Studies, Centre for Trade and Economic Integration. <https://repository.graduateinstitute.ch/record/294795/files/>

¹⁵ Kang, S. and J. Salinas. 2021. A Challenge to section 861-type principles or nexus redefined: a critique of global trends and developments concerning the taxation of digital platforms.

¹⁶ OECD. 2015. Action 1 tax challenges arising from digitalisation. <https://www.oecd.org/tax/beps/beps-actions/action1/> (accessed on Aug. 25, 2020).

¹⁷ Id.

An economic impact analysis shows the combined effect of the two-pillar solution.¹⁸ Up to four percent of global corporate income tax revenues, or USD 100 billion of revenue gains annually, could result from the implementation of the global minimum tax under Pillar Two. USD 100 billion could be redistributed to market jurisdictions through Pillar One which plans to ensure a fairer international tax framework.

Issues with the OECD Proposal

The Two-Pillar approach requires broad support (not only in terms of the principled agreement but also in terms of actual monitoring), deployed through a multilateral treaty - which unavoidably means many countries will need to surrender their sovereign power to tax in order to prevent double taxation. States like the US are concerned about mandatory departures from arm's-length transfer pricing and taxable nexus standards, which could be addressed through a safe harbor option that would allow companies to be taxed under existing tax rules only.¹⁹ January 2020 marked the start of negotiations on a final agreement for Pillar One, which would consider the US safe harbor proposal, and withdrawal of unilateral digital taxation measures. However, negotiations have stalled based on US resistance even to interim, phased-in versions of the OECD framework, even going so far as threatening countermeasures against unilateral efforts to tax. This could be explained through the fact that a disproportionate amount of multinational entities, including those that dominate the online space can be found in the US.

To be factored in are some structural limitations of the OECD: It is seen as representing only developed countries over the smaller market countries.²⁰ It only writes recommendatory soft law, and adoption is based on member states' discretion. A far-reaching tax treaty might also run against the OECD's prior commitment to free trade and free movement of services and goods. Finally, the OECD has opposed withholding tax regimes, which makes tax enforcement more difficult especially for non-resident entities.²¹

Although efforts seemed to have stalled due to the pandemic (with the US and the EU proceeding with unilateral digital tax efforts), the OECD remains committed to the effort and is proceeding with consultations on its proposals.²²

2.3.2. EU Approach

The European Commission's proposal is premised on the acceptance that the current international system is no longer fit for the purpose of a globalized, digital economy - particularly, the recognition that tax rules fail to capture business models of digital services that can profit without the need for physical presence: "In the digital economy, value is often created from a combination of algorithms, user data, sales functions, and knowledge. For example, a user contributes to value creation by sharing his/her preferences (e.g., liking a page) on a social media forum. This data will later be used and monetized for targeted advertising. The profits are not necessarily taxed in the country of the user (and viewer of the advert), but rather in the country where the advertising algorithms have been developed, for example. This

¹⁸ OECD. 2020. International community renews commitment to address tax challenges from digitalisation of the economy - OECD. <https://www.oecd.org/tax/beps/international-community-renews-commitment-to-address-tax-challenges-from-digitalisation-of-the-economy.htm>.

¹⁹ Letter from Steven Mnuchin, U.S. Sec'y of Treasury, to Jose Angel Gurria, OECD Secretary-General. 2019.

https://s.wsj.net/public/resources/documents/TreasuryLettertoOECD%20SecretaryGeneral12319.pdf?mod=article_inline.

²⁰ Tax Analysts, Tax Notes Today International. 2019. Doc 2021-10514, 2021 TNTI 49-1. The OECD doesn't represent the interests of small market countries, including its smaller European members, and could do more to make rules administrable for them.

²¹ Id.

²² OECD. 2020. International community renews commitment to address tax challenges from digitalisation of the economy. <https://www.oecd.org/tax/beps/international-community-renews-commitment-to-address-tax-challenges-from-digitalisation-of-the-economy.htm>.

means that the user contribution to the profits is not taken into account when the company is taxed.”²³

Under the proposed rules, an EU member state’s power to tax digital transactions will not require the physical presence of the business. It does not even require a direct flow of monetary value (e.g., through users buying products and services) but is based on the flow of value from users (like the data and the attention that they provide). The new digital tax regimes are composed of two proposals. Proposal 1, the preferred long-term solution, is to reform the corporate tax regime such that profits are registered and taxed based on significant interaction with users of the taxing jurisdiction. This hinges on retrofitting the concept of PE for the digital age, through a digital presence nexus. Under this concept, profits generated within any EU member state can be taxed regardless of physical presence based on the following criteria:

1. Profits exceed 7 million euros in any EU member state within a tax year;
2. Has more than 100,000 users in a member state during the tax year; or
3. Over 3000 business contracts for digital services are created between the company and business users within a tax year.²⁴

Proposal 2 of the EU reform package is an interim tax covering key digital activities that currently escape taxation from the EU. Although intended as an interim measure to head off the development of uncoordinated unilateral measures, the EU proposal was not passed in time to prevent such measures at the national level:

1. France’s digital service tax legislation, passed on July 24, 2019: It imposes a 3 percent tax on gross revenues derived from digital activities where French citizens have contributed to value creation. The law also taxes intermediary services (those that enable users to find and interact with each other) as well as advertising services based on user data (those that provide services to advertisers with the aim of placing targeted advertising messages on a digital interface based on data collected about users and generated upon the consultation of such interface Includes related services such as purchase, storage, monitoring/analysis, as well as management and transmission of user data for these purposes).
2. The UK passed a similar measure effective April 1, 2020: The measure imposes a 2 percent tax on annual worldwide revenues above 500 million euros (if 25 million of these are attributable to UK users). The law applies to social media services, search engines, and online marketplaces accessible to users in the UK, as well as ancillary services.

Despite the passage of these unilateral measures, there is a renewed pressure to develop an EU-wide regime for digital services tax because: of (1) concerns that the OECD negotiations to reform the global tax system will not be successful and (2) an EU-wide digital tax would be better than multiple national digital services taxes for purposes of tax treaties, business compliance, and international leverage. Among the alternative formulations being considered are: (1) a corporate income tax top-up to be applied to all companies conducting specific digital

²³ European Commission. 2018. Fair taxation of the digital economy. https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en (accessed on Aug. 25, 2020), par.5.

²⁴ Id.

activities in the EU, (2) a tax on revenues created by specific digital activities conducted in the EU, (3) and a tax on digital transactions conducted business-to-business in the EU.²⁵

2.3.3. Developments in the US

The US has unequivocally stated its position against unilateral measures, specifically the France DST, even going so far as stating that it would take retaliatory measures against it.²⁶ Much of the messaging from Washington expresses concerns of discrimination against the US since the tax measures disproportionately impact US companies, which happen to dominate the sector. Taxing these entities will have an impact on domestic job creation and economic development. The US Department of State maintains that digital companies are not different from traditional companies and that their transactions should not be taxed differently. Although it supports a review of the permanent establishment rule, the US, is concerned with the legal and practical ramifications of building a “two-tiered” tax system - one for traditional companies, and another for digital companies.

There is also concern that the EU’s digital taxation regime may in fact provide a disincentive to digitization and economic growth. A turnover tax such as the one proposed by the EU does not take sufficient account of the nature of the transactions taxed (i.e., these transactions will be taxed regardless of whether or not they are profitable) and will have distortive effects that will discourage the adoption of digital technology.²⁷ Furthermore, the EU’s measures will reintroduce the problem of double taxation for digital companies, since their revenue will first be taxed as digital services based on the EU criteria, before being taxed as income upon repatriation to the digital company’s country of residence.²⁸

Although the United States has been reluctant to move on digital taxation, at the international level, it has already progressed in a reevaluation of what is considered a taxable nexus. In the *South Dakota v. Wayfair* case - the U.S. Supreme Court departed from the established physical presence rule for domestic sales taxes.²⁹ The doctrine required out of state businesses to have an actual physical presence in the state imposing the tax. After *Wayfair* – state governments can require online retailers to collect taxes, even if the latter do not have a physical presence.³⁰ Although limited only to sales tax for interstate transactions online, the decision may reflect an acceptance of the notion that the PE rule used for taxing multinational corporations is outdated and ineffective. Much of the reasoning in the majority opinion can be used as a criticism against the old regime based on physical presence. It deemed the physical presence requirement of previous cases³¹ to be “unsound and incorrect.” According to the decision, the physical presence rule also gave an unfair disadvantage to out-of-state sellers - creating a judicial tax shelter for businesses that limit their physical presence. The Supreme Court also acknowledged

²⁵ Lamer, E. 2021. EU digital levy, will be separate from OECD talks., Tax Analysts, Tax Notes Today International., Doc 2021-10800, 2021 TNTI 49-8.

²⁶ Jopson, B., R. Toplensky, and J. Brundsen. 2018. Tech tax deepens EU-US trade rift, financial times. <https://www.ft.com/content/e9c37b1e-2932-11e8-b27e-cc62a39d57a0> (discussing European Union's digital service tax and United States response).

²⁷ Beaudoin, supra n 10 p. 129: pp. 129–183.: “Many companies, even if they technically do not maintain a “digital business model” may inadvertently fall within the scope of the digital tax if they heavily rely on digital services to interact with consumers and facilitate purchases. In today’s society, it is becoming more common for traditional businesses to use digital platforms to conduct and advertise services. The growth of digital economy has had an unquestionable positive impact on economic growth, but it may regress if companies conducting business in Europe cease to use digital platforms in fear of losing profits at the hands of the digital service tax.”

²⁸ Id.

²⁹ 138 S. Ct. 2080; 201 L. Ed. 2d 403 (2018).

³⁰ Id.

³¹ Quill Corp. v. North Dakota, 504 U.S. 298 (1992).

that the previous rule was out of touch with economic reality: According to Justice Kennedy, “The Internet’s prevalence and power have changed the dynamics of the national economy.”³²

In the wake of the decision, a majority of the states have taken the lead in redefining rules on nexus and tax jurisdiction, approximating a DST. Thus, if a company without a physical presence in a state sells taxable goods and services in that state, it can be subject to that state’s sales tax rules, and it will be obliged to collect and remit such tax. However, this regime presents an issue of fairness and enforceability, especially for companies that have no physical presence and no assets that the state could seize in case of non-compliance.³³ Ineffective enforcement would disadvantage domestic companies with online offerings who would then disproportionately bear the tax burden. The tax gap might cause them to leave the jurisdiction, causing further erosion of the state’s tax revenue.³⁴ Commentators suggest that to assure a level playing field, the state must assure collection of all taxable sales within the state. This underscores not only the need for laws but enforcement strategies in the case of non-compliance.³⁵

The US Federal Government is also working within the existing tax framework from Congress but aims to tax online transactions through administrative interpretation. With the ultimate effect of taxing revenues from cloud transactions as well as taxing the consumption of digital content where users reside.³⁶ Under the proposed 26 CFR § 1.861-18 (“Classification of transactions involving computer programs”) - The US is expanding the scope of taxing authority from transactions involving computer programs to those involving digital content, which is defined as “a computer program or any other content in digital format that is either protected by copyright law or no longer protected by copyright law solely due to the passage of time, whether or not the content is transferred in a physical medium.” 26 CFR § 1.861-19, on the other hand, covers cloud computing transactions, typically described as (1) Software as a Service (‘SaaS’); (2) Platform as a Service (‘PaaS’); and (3) Infrastructure as a Service (‘IaaS’).

A cloud transaction is defined as a transaction through which a person obtains on-demand network access to computer hardware, digital content (as defined in Prop. Treas. Reg. § 1.861-18(a)(3)), or other similar resources, other than on-demand network access that is de minimis. It does not include network access to download digital content for storage and use on a person’s computer. Neither does it include a mere download or other electronic transfer of digital content for storage and use on a person’s computer. Under the interpretive issuance, cloud transactions are characterized as access to or use of property, instead of the sale, exchange, or license of property. Transactions are therefore legally classified as a lease of property or a provision of services.

No sourcing rules are provided, so the fallback for taxpayers is traditional sourcing rules. Services can be deemed to take place where: 1) The taxpayer’s personnel are located; 2) The servers are located; 3) The customers are located; or 4) Any combination of the above. This is problematic since the provision of any component of the service (programming, design, database, network) can be distributed.³⁷ For US corporations, their worldwide income is subject

³² Wayfair, *supra*.

³³ Kirkell and Bell-Jacobs. 2018. ‘E-flight risk? Driving headlong into the intersection of wayfair and the revenue rule RSM Insight Article. <https://rsmus.com/what-we-do/services/tax/indirect-tax/sales-and-use-tax/e-flight-risk-driving-headlonginto-the-intersection-of-wayfair.html>.

³⁴ *Id.*

³⁵ *Id.*

³⁶ Prop. Reg. 1.861-18(a), 84 Fed. Reg. 40317., 2019). Prop.Reg. 1.861-19, 84 Fed. Reg. 40317.

³⁷ See example from Kang *supra* n 15.

to federal tax, so whether the federal taxable income includes service income from foreign customers may not be meaningful for state income tax purposes. However, foreign corporations with a US trade or business may be significantly impacted by how a cloud transaction is sourced for state income tax purposes.

Although not specifically targeted towards digital transactions, the US Congress passed the Base Erosion Anti-Abuse Tax (BEAT), concerning the global income of US-based companies and US source income of non-US-based companies. The BEAT regime was established to protect the US tax base from reduction via outbound payments. It targets “base erosion payments,” which include any amount paid or accrued by a corporation to a foreign person that is a related party, and generally includes, among other deductible payments, interest, royalties, and service payments. These base erosion payments have been deducted from the ordinary income, which results in tax savings. The BEAT attempts to deny this advantage, and in doing so, assesses a BEAT amount in addition to the regular tax amount of the US company, regardless of any mismatch with the rules concerning jurisdiction to tax based on source or residency in effect in the country where the foreign payee is considered a tax resident. In doing so, the related parties are potentially subject to double taxation with respect to the same item of income.³⁸

2.3.4. UN Proposals

The UN has proposed a digital tax regime that diverges significantly from the OECD approach. The content of the UN proposal is shaped by concerns over the OECD approach, such as 1) the complexity of the OECD proposal; 2) the problems developing countries could encounter regarding implementation and administration and the coherence of their legal system; 3) their ability to obtain the information needed to enforce the OECD approach; and 4) their effective engagement in the new administrative processes that will be required to ensure multilateral agreement on amounts to be allocated.³⁹

The UN Proposal would impose a direct income tax on automated digital service providers. This obligation can be charged as a withholding tax 1) on gross income (with rates subject to later agreement by the parties) or 2) on net income based on formula for apportioning between the state of residence and the market state. The proposal allows automated digital service providers to select whether gross or net income will be the basis for assessment. The term ‘income from automated digital services’ is defined in Article 12B(4) as: “any payment in consideration for any service provided on the internet or an electronic network requiring minimal human involvement from the service provider. The term ‘income from automated digital services’ does not, however, include payments qualifying as ‘fees for technical services’ under Article 12A.”⁴⁰

2.3.5. Work from Developing Economies

The African Tax Administration Forum has expressed that Africa cannot afford to wait for OECD proposals to be finalized and implemented. With its economies decimated by COVID, coinciding with record revenues from digital businesses that have abandoned physical presence in favor of purely digital presence.⁴¹ The model law it proposes for adoption takes a DST-based approach - attributing digital services revenue and therefore, the right to impose a digital

³⁸ Ouyang, H., and J.G.S. Yang. 2019. A new tax regime: the base erosion and anti-abuse tax,.

³⁹ Spencer, D. 2020. Taxation of the digital economy: proposal by the UN tax committee. Part 11. Journal of International Taxation, Issue 31, p.30: 30–43.

⁴⁰ See Tax Treatment of Payments for Digital Services, <https://www.un.org/development/desa/financing/sites/www.un.org/development/desa/financing/files/2020-08/TAX%20TREATY%20PROVISION%20ON%20PAYMENTS%20FOR%20DIGITAL%20SERVICES.pdf>, par. 4.

⁴¹ Spencer. Digital services taxes: The african tax administration forum (ATAF) suggested approach.

services tax, to a country based primarily on where the users are located. Although the projected revenue is not large, the measure would boost public perception of the fairness of the taxation system by subjecting large multinationals to the same taxes paid by local businesses with a physical presence in the jurisdiction.⁴² The tax base would be 1-3 percent on gross turnover and thus could apply to firms in loss, or with low-profit margins. In order to counteract the possibility that the DST will reduce the growth of the digital sector in Africa (particularly start-ups and small and medium enterprises), the tax measure features robust de minimis thresholds. Section 8 of the model law considers both 1) a worldwide threshold, based on a company's worldwide turnover, in the chargeable period and 2) a country-specific threshold, that is, the total amount of digital services revenue arising in the respective country to the company in the chargeable period.

Under the model law attribution to the source, the country is generally determined by the presence of the digital businesses' users. In Part 5 of the model law, a user means any person that uses, views, or otherwise engages with an online platform, and includes: (i) persons involved in transactions for the rent or other use of real property through an accommodation online marketplace, including those persons providing the property for rent or use and those persons renting or using the property; (ii) persons involved in transactions for private vehicle hire services through a private vehicle hire online marketplace, including drivers and passengers; (iii) persons involved in transactions for the purchase or sale of any goods or services, including digital content, through an online marketplace; and (iv) persons purchasing or subscribing to digital content services, online gaming services or cloud computing services. Part 6 enumerates rules for determining the location of the user:

For advertising services:

1. The user profile, which means, information regarding the ordinary location of the user, is accumulated by the online platform over the course of the user's engagement with the online platform.
2. If there is no user profile data, the geolocation associated with the device at the time the user engaged the online platform.
3. If there is no user profile or geolocation data, the user's IP address is associated with the device at the time the user was engaged on the online platform.

For online marketplace services, the location of users who purchase goods and services:

1. If the user purchases physical goods and services, the user's physical delivery address.
2. In all other cases, the geolocation associated with the device at the time of entering the relevant transaction through the online platform.
3. If there is no geolocation data, the user's IP address is associated with the device at the time of entering the relevant transaction through the online platform.

⁴² Id.

For online marketplace services, the location of users who sell goods:

1. The registered address associated with the account through which the transaction took place.
2. If (1) is not available, the billing address associated with the account through which the transaction took place.
3. If (1) or (2) are not available, the geolocation associated with the device at the time of entering a transaction through the online platform.
4. If (1) (2), and (3) are not available, the user's IP address is associated with the device at the time of entering the relevant transaction through the online platform.

For digital content services, online gaming services, and cloud computing services, the location of users shall be determined according to:

1. If the user is a business, the registered business address of the user receiving the services.
2. If the user is a person other than a business, the billing address of the user receiving the services.
3. If (1) or (2) are not available, the location of the user's bank or financial account used to make payment for the services.
4. If (1), (2) or (3) are not available, the geolocation associated with the device at the time of purchasing the service.
5. If (1), (2), (3) and (4) are not available, the user's IP address is associated with the device at the time of purchasing the service.

2.3.6. Developments in the ASEAN

Countries in the region are increasingly aware of the value of digital commerce and are taking unilateral steps to capture revenue. Singapore is requiring foreign digital services providers to collect and remit (on behalf of their users) a goods and services tax (GST) of seven percent and participate in an Overseas Vendors Registration regime.⁴³ These obligations are applicable to foreign suppliers of digital services with global turnover of more than SGD\$1,000,000 and whose sale of digital services to consumers in Singapore exceeds \$100,000. Other ASEAN countries such as Malaysia,⁴⁴ Indonesia,⁴⁵ and Thailand⁴⁶ have followed a similar track - imposing a tax on the ultimate consumers of digital services and requiring non-resident digital service providers to register to facilitate the obligation to collect from their users and remit the taxes to the government.

⁴³ Inland Revenue Authority of Singapore. GST on imported services. [https://www.iras.gov.sg/taxes/goods-services-tax-\(gst\)/gst-and-digital-economy/gst-on-imported-services](https://www.iras.gov.sg/taxes/goods-services-tax-(gst)/gst-and-digital-economy/gst-on-imported-services).

⁴⁴ Yeoh, C.G. and G. Ong. 2021. What foreign digital service providers need to comply with in Malaysia. https://www.ey.com/en_my/tax/what-foreign-digital-service-providers-need-to-comply-with-in-malaysia.

⁴⁵ Conventus Law. 2021. Indonesia digital services tax <https://conventuslaw.com/report/indonesia-digital-services-tax/>.

⁴⁶ EY. 2021. Thailand's application of VAT on digital services (e-services) provided by foreign operators will apply as of 1 September 2021. https://www.ey.com/en_gl/tax-alerts/thailand-s-application-of-vat-on-digital-services-e-services-provided-by-foreign-operators-will-apply-as-of-1-september-2021.

As will be discussed below, proposed legislation in the Philippines likewise follows the Singaporean model: The proposed tax on digital services does not reach into the income of non-resident providers but deputizes to impose an additional tax burden on their users.

Unilateral responses, such as the one taken by the United States, France (which is representative of the EU), the UK, and Singapore reflect both their relative standing in the digital economy's value chain, as well as their economic/trade policies. The U.S., as the state of residence for many of the leading digital commerce companies, adopts a tax policy that allows it to maximize revenue collection from those companies, while protecting them from unilateral taxation by other countries. Countries like the UK, France, and Singapore may not have the top participants in the digital commerce ecosystem, but their developed network infrastructure, talent pool, and location have made them attractive as regional hubs. They have also developed their tech industries to provide vital inputs for the dominant participants, i.e. software development, finance, and management systems. The unilateral tax policy imposed by these countries reflect their market power, as well as their interest in ensuring parity in the tax burden between resident and non-resident companies, so that their tech industries remain competitive. On the other hand, the African response reflects its status as a potentially vast (and largely untapped) market for digital goods and services. Thus the African model treaty considers as taxable any income from users located in Africa. The Philippines can be characterized as occupying a transitional phase between these models. It is an emerging market with a young, technologically savvy population. Catalyzed by the pandemic, the local digital commerce market is experiencing growth, and the government is anchoring economic recovery on continued growth for the sector. On the other hand, relatively poor network infrastructure prevents the country from scaling its own tech sector, or becoming a regional hub for the dominant providers. Nevertheless, the Philippines has a competitive advantage in technical support and aspires to move up the value chain.

2.4. *Taxation of Digital Commerce in the Philippines*

2.4.1. Existing Law

The baseline tax law still being applied in the Philippines is RA 8424, passed when the digital economy was non-existent in the country. It has no definition of digital transactions, and no process for recognizing and collecting revenue from online transactions. Like most tax laws of its vintage, it uses the traditional model where citizens and domestic corporations are taxed based on their income worldwide (nationality principle). In the case of foreign, non-resident citizens as well as foreign corporations, on the other hand, these are taxed only for income based in the Philippines (territoriality principle).

The country's National Internal Revenue Code, like most tax laws, enshrine the above principles. In the case of income taxation, a resident citizen of the Philippines is liable to pay tax for income earned from both local and foreign sources.⁴⁷ A non-resident Filipino citizen, on the other hand, will have taxable income for sources within the Philippines.⁴⁸ Foreigners, whether resident or not, are taxable only for income earned from sources within the Philippines.⁴⁹ These rules are mirrored for corporate counterparts: A domestic corporation, like a resident citizen, will be liable for taxes on income derived from within and outside the Philippines.⁵⁰ Finally, a foreign corporation's taxable income includes only those sources from

⁴⁷ Republic Act 8424, National Internal Revenue Code ("NIRC"), as amended. Sec. 23(A).

⁴⁸ *Ibid.*, at Sec. 23 (B).

⁴⁹ *Ibid.*, at Sec. 23 (D).

⁵⁰ *Ibid.*, at Sec. 23 (E).

the Philippines.⁵¹ It should also be noted that the organization of the state's tax apparatus likewise reflects the paradigm built around physical location: Tax administration is spread across revenue districts with geographical assignments.⁵²

The regime can be enforced well for income based on brick-and-mortar businesses, even when a foreigner is a counterparty to the transaction. A non-resident foreigner, such as a tourist, can purchase goods in a local store. The local store records the transaction as part of its income, which is reflected in its tax return. On the other hand, the store is also essentially deputized to impose VAT on its products and charge it on consumers.⁵³ These obligations are enforced through a system of tax administration measures that are tied to physically locating the subject of taxation or its place of business, its assets and information. Thus, in the case of the hypothetical local store:

1. *Tax Registration* - It is required to register its business with the BIR, and the issuance of a registration certificate (along with its annual renewal)⁵⁴ is a precondition to being issued a business permit. Both the BIR registration and the business permit are required to be prominently displayed in the place of business.⁵⁵
2. *Point of Sales Permit* - The store is required to apply for a permit to use a Cash Register Machine or Point of Sale System. The application process will require the business to submit technical information on the machine sufficient for the BIR to extract and verify transaction information.⁵⁶
3. *Receipts Printing and Issuance* - The store cannot print its own receipts and invoices to evidence its sales. Any business that issues receipts and invoices is required to apply for a permit with the BIR and print it only through accredited printers.⁵⁷
4. *Physical mapping and inspection* - Through regular tax mapping, the BIR updates its awareness of the number and locations of businesses within an area and their compliance with their tax obligations. In this process, the store of business is tagged with a "Tax Mapped" and its book of accounts are inspected.⁵⁸
5. *Physical apprehension of subjects* - In the event that the store fails to meet its tax obligations, the BIR can avail of a series of actions that proceed against the physical aspects of the store or its owners: It can forcibly close the place of business, seize its stock in trade and other assets,⁵⁹ or criminally charge its owner (which can lead to the latter's physical arrest and detention).⁶⁰

The same system is at work in a service setting, even if the counter-party is a foreigner. A local business hiring a foreign consultant will be subject to all of the above monitoring and enforcement actions.⁶¹ In addition, the business is deputized as withholding agent of the

⁵¹ *Ibid.*, at Sec. 23 (F).

⁵² Executive Order No. 132. 2021. Adjusting the Dividend Rate of the Land Bank of the Philippines Pursuant to Section 5 of Republic Act No. 7656.

⁵³ NIRC Sec. 105 or RR No. 16-2005. Consolidated Value-Added Tax Regulations of 2005.

⁵⁴ *Ibid.* Sec. 236.

⁵⁵ Revenue Regulation 7-2012, Sec. 7 (5).

⁵⁶ *Ibid.*, at Sec. 237.

⁵⁷ *Ibid.*, at Sec. 238.

⁵⁸ Revenue Memorandum Order No. 31-2003.

⁵⁹ *Ibid.*, at Sec. 115.

⁶⁰ *Ibid.*, at Sec. 254.

⁶¹ *Ibid.*, at Sec. 25 (A.1).

foreigner's income. Even if the foreigner is outside of the BIR's ability to locate and apprehend, his employer and locally-sourced income is.

The BIR has tried to modernize this tax regime through administrative interpretations that cover specific digital transactions, through issuances such as Revenue Memorandum Circular No. 44-2005.⁶² Under the issuance, the following transactions shall be subject to 12 percent value-added tax (VAT):

1. Royalty payments for the use of a copyright over a software.
2. Payments made to resellers/distributors or retailers who are engaged in the trade or business of distributing or selling software.
3. Payments for services rendered in the Philippines in connection with purchased software.

If the payments are made to a non-resident licensor/reseller/distributor, the person in control of the payment shall be required to withhold the VAT for and on behalf of the non-resident licensor. The licensee may claim the VAT withheld as its input tax upon filing its VAT return.

Another foray into taxing the digital economy is Revenue Memorandum Circular No. (RMC) 70-2015, which governs "the tax incidence of the business of land transportation, particularly transport network companies (TNCs), such as but not limited to the likes of Uber, GrabTaxi, their Partners/suppliers and similar arrangements."⁶³ Under this issuance, the BIR differentiates TNCs and/or Partners who are holders of Certificates of Public Convenience (CPC) from those who are not. If a TNC or Partner holds a CPC, they shall be classified as a "common carrier" and therefore subject to the three percent common carriers tax (CCT) under Section 117 of the Tax Code. Otherwise, they shall be classified as "land transportation service contractors" and therefore subject to the 12 percent VAT or to the three percent percentage tax (if the Partners with gross receipts not exceeding P1,919,500 opt not to be VAT-registered).

2.4.2. Recent Developments

Taxation of the digital economy has long been on the government's agenda. Even for some of its administrators, the National Internal Revenue Code is no longer fit-for-purposes when it comes to taxing online transactions.⁶⁴ Moreover the pandemic response and the post-pandemic recovery will drive an even greater need for revenue generation. House Bill (HB) No. 6765, Digital Economy Taxation Act (filed May 2020) still being deliberated by Congress, proposes a 12 percent VAT on 1) digital advertising services (such as those on search engines and social media platforms); 2) subscription-based services (including music and video streaming subscriptions); 3) services rendered electronically; and 4) transactions made on electronic commerce (e-commerce) platforms. The bill would require suppliers of digital services, network orchestrators, and e-commerce platforms to establish a resident agent or representative office to act as a withholding agent in the Philippines. On the other hand, the bill also recognizes entities in the digital commerce ecosystem called "network orchestrators". These include ride-hailing companies (e.g. Grab, Angkas), rental platforms (e.g. AirBnB), and other persons that link customers and service providers within a network system (e.g. payment

⁶² Taxation of Payments for Software, Revenue Memorandum Circular No. 44-05, September 1, 2005.

⁶³ Reiterating the Tax Treatment of Certain Persons Engaged in the Business of Land Transportation, Revenue Memorandum Circular No. 70-2015, October 29, 2015, p. 1.

⁶⁴ Key Informant Interview with Atty. Josephine Gomez, Assistant Revenue District Officer, Bureau of Internal Revenue, September 06, 2022 ("Gomez Interview"). On file with the PIDS.

gateways such as Maya or GCash). These entities will be required to withhold tax on the income derived by related actors in the network orchestrator system. If a non-resident renders digital services, or act as network orchestrators and/or as e-commerce platforms, it will be required to establish a representative office or resident agent in the Philippines. For tax purposes, revenues derived from the enumerated activities (network orchestration, rendering of digital services, operation of e-commerce platforms) will be considered revenues generated by the representative office or resident agent.

A more recent measure, HB 7425 has passed on third reading in Congress and seeks to amend Section 105 of the NIRC by taxing digital service providers that operate through online platforms. The proposal imposes a 12 percent VAT on digital transactions in the country. Foreign corporations selling digital services (Netflix, Spotify) will have to pay for and impose VAT on their services. Arguably, the measure does not propose a new tax or tax rate but merely proposes to increase income tax and VAT compliance by requiring network orchestrators and electronic commerce platforms to withhold those taxes by appointing them as withholding agents. Non-resident digital service providers with gross sales from the past year from the implementation of the proposed law above P3 million will be required to register for VAT. An initial estimate from the Department of Finance, projects P10.7 billion in additional revenues arising from the proposed law every year. Digital services include online licensing or software, updates and add-ons, website filters and firewalls, mobile applications, video games and online games, and webcasts and webinars. It also includes the provision of digital content (music, files, images, text, information); online advertising spaces; electronic marketplaces; search engine services; social networks; database and hosting; and online training. The bill was transmitted to the Senate but was not passed into law.

HB 4122, filed more recently under the 19th Congress, reiterates the approach of HB 7425 in imposing a 12 percent VAT on digital services. The scope of entities and transactions covered are identical to those enumerated in HB 7425. The new bill provides a new requirement for non-resident digital services - the appointment of a resident corporation as local tax agent to assist in compliance with the law. The proposed new tax follows the unilateral approaches taken by France, the UK, and Singapore. It relies on the existing tax base reliant on some physical nexus: Either a resident agent, or ultimately, the resident user who will ultimately bear the tax burden.

Like the measures passed by the UK, France, and Singapore, the proposed law is a unilateral measure. The effectiveness of tax collection would largely depend on how the non-resident provider can be incentivized to cooperate - i.e. whether the cost of cooperation is lower than participation in the local market. Since the non-resident provider may have no local presence to start with - it has no local office, no assets, and all aspects of its business interaction is carried out online - the BIR's usual toolset to compel taxpayers would not be available. It cannot force registration or reporting. It cannot even exercise visitation rights and inspection of accounts without cooperation from the non-resident provider's home jurisdiction. The only recourse it may have is to go straight to the terminal option and compel local internet service providers (ISP's) to block access to the provider's services. This in effect punishes the user, and is easily defeated at the level of the user by resorting to readily available means of routing around ISP blocking (e.g. virtual private networks).

While Congress finalizes a workable digital tax policy, the BIR is optimizing enforcement of existing tax law through administrative issuances. RMC 55-2013 provides the BIR's interpretation that subjects online business transactions to existing tax law, and reminds parties to online transactions of their tax obligations. Although the rule applies to all forms of online

transactions under the BIR's jurisdiction, the circular illustrates tax obligations for the following operators:

1. Online shopping and retailing - Refers to those who engage in direct buying and selling of goods and services without the use of an intermediary. The online shops of existing brick-and-mortar businesses, or brands that only sell online, fall under this category.
2. Online intermediary services - These are third parties that serve as conduits between trading parties, and receive commission for every transaction. Platforms like Lazada or Shopee, which allow businesses to set up online store fronts within their sites, can be considered online intermediary services.
3. Online advertisement/classified ads - Applies to firms whose business model depends on delivering marketing messages via the internet to attract customers. Social media sites (such as Facebook, Youtube) allow communications and delivery of media for free, but rely on monetizing audience and engagement by serving ads tailored to user behavior and preferences.
4. Online auctions - Are similar to online intermediary services in the sense that they are third party service providers that enable transactions between parties. However, closing of the transaction is based on the highest bidder. Auction platforms can receive a commission based on the purchase price, or impose a fixed subscription fee for use of their technology.

It should be noted that these categories are not necessarily exclusive. Technology enables convergence of these revenue models. An online auction platform can receive bids but also provide a "buy now" price for immediate purchase, in which case it would behave just like an online intermediary service. An online intermediary service that enables online storefronts for sellers can also sell products on its own account, in which case it may be considered an online shopping service. Finally, an online shopping platform can derive revenue not just from sales, but also leveraging its traffic and data collection on users to serve ads.

RMC 55-2013 relies on existing law for its scope of application and mode of tax administration. It is tied to the same system of registration and monitoring applicable to brick-and-mortar businesses under territorial jurisdiction. Thus: businesses involved in the digital commerce value chain are required to register with the BIR, apply for authority to print receipts, withhold creditable taxes, and file returns on their own income. It draws on the existing tax base, and does not apply to non-resident digital service providers - who are usually the market leaders and are the ones who extract more revenue from the local user base. While these rules may be valid in principle, it is difficult to imagine how these can be monitored and enforced at scale - even to residents of the Philippines. The ease through which online accounts and storefronts can be set up - often anonymously - with components of the process happening abroad - can present a significant enforcement challenge for the BIR.

RMC 60-2020 clarifies that Philippine tax law applies to all income whether or not the transactions are in digital form. It also reminds all persons earning income through digital means to ensure that their businesses are registered and tax compliant.⁶⁵ The circular notes that compliance is not limited to the e-commerce platforms and their partner sellers/merchants, "but also stakeholders involved such as payment gateways, delivery channels, internet service

⁶⁵ Bureau of Internal Revenue. 2020. Revenue Memorandum Circular No. 60-2020. https://www.bir.gov.ph/images/bir_files/internal_communications_2/RMCs/2020%20RMCs/RMC%20No.%2060-2020.pdf.

providers, and other facilitators.”⁶⁶ On the other hand, RMC 97-2021 clarifies the tax obligations of social media influencers. The circular states that influencers are liable to Income Tax and Percentage Tax or VAT. Further to this, the BIR has announced that it is investigating tax compliance of the top 250 “influencers” in the country.⁶⁷

3. Research Methodology

The functional model of law views legal text as a means of enacting policy or an expression of a policy preference. Policymakers are tasked to respond to a challenge through a new policy, usually expressed in legal text, that would structure actions, or express new preference. At the very least, the new policy can adjust the status quo to make the adverse situation more acceptable.

The taxation of digital transactions is one such challenge that the country’s policy makers have to respond to. As firms and consumers shift more of their activities online, the existing legal framework for taxation, primarily developed for “brick and mortar” businesses, may fail to capture the value in digital transactions.

From a universe of possible responses, policymakers have to select the most appropriate subject that will have to satisfy not only rational, economic considerations, but will also be appropriate based on social and political commitments.

While there are many proposals for tax law reform in the digital age, most of them are based on models from advanced economies. The literature is sparse when it comes to changes that would be appropriate for a country with the Philippines’ economic profile (a developing market, emphasis on service-based industries, and a net importer of finished goods).

This study will perform a gap analysis of the Philippines’ current tax regime, as far as it applies to digital transactions. The gaps will be based not only on shortcomings relative to models from the OECD, et al., but also on the experience of key stakeholders in the Philippine tax system.

The study aims to evaluate the country’s legal framework for taxing digital transactions. Specifically, the extent to which the provisions of the law can map onto the value of digital markets. This leads to the preliminary question of defining the market to which the tax laws can be applied. Taxes are aimed to capture the flow of value in transactions, and a market can be described as the aggregate set or network of transactions. Defining the market would enable the analysis to focus only on relevant transactions. The goal is to inform a tax policy that captures the growth and increased purchasing power in this sector, not impose new taxes on “traditional” sectors already subject to tax. This is also a matter of proper scoping and efficiency. The study can avoid examining the entire corpus of tax law and focus only on those legal provisions that are relevant to the taxation of digital transactions (either by direct reference or by implication).

However, “ring-fencing” digital commerce into a neat, singular definition for the purpose of analysis can be difficult.⁶⁸ There are many, often incompatible definitions because the concept can be approached from a variety of perspectives: from resource-based models that emphasize the use of technologies as the main criteria, to broader concepts that take into account structural

⁶⁶ Id., p.1.

⁶⁷ Rivas, R. 2021. BIR probes 250 social media influencers for tax compliance. <https://www.rappler.com/business/bir-probes-hundreds-social-media-influencers-tax-compliance/>.

⁶⁸ Cuenca, supra n 6.

changes to the economy.⁶⁹ Furthermore, as large swathes of the economy adopt new technology and business processes, what constitutes the digital economy expands from a core of the ICT firms responsible for the foundational goods and services of the sector to a “true digital economy” with business models that rely primarily on digital goods and service, potentially growing to the point where the economy in general uses ICT.⁷⁰

Instead of an ontologically complete definition of the digital economy, this study is adopting a functional model with sufficient resolution to identify the most relevant revenue models, the flows of value embedded in these, and the extent to which the existing tax regime fails to account for these flows of value. This study will build on a model of the digital economy as a value chain that involves multiple subsectors and actors⁷¹ - from the core ICT companies that provide enabling technologies, to key intermediaries (such as platform providers and logistics companies), to actors at the endpoint of transactions - buyers, sellers, and contractors such as drivers and delivery personnel.

Table 1. Proposed value chain model for digital economy

Functions	Infrastructure	Platform Design and Integration	Promotion	Payments	Fulfillment
Activities	Provisioning of Hardware, Software, Network Resources	Software development Operations (Seller Onboarding, Technical Support)	Advertising and marketing campaigns Data Analysis	Fund Transfer Settlement Insuring	Inventory and Warehousing Shipping Tracking
Actors	Telcos/ISP's Application/Content Hosting	E-Commerce Platform(B2B, B2C, C2C) Enabler Firms Contact Center	Advertising/Marketing/PR Firms Search Engines Ad Networks	“Traditional” Payment System Non Traditional Payment Systems - Independent Service	Logistics Companies - Cross Border Logistics, Package Forwarding Firms, Third Party Logistics, On-Demand Delivery Firms,

⁶⁹ Id., citing Bukht and Heeks. 2017.

⁷⁰ Id.

⁷¹ Serafica, R., M.A. Rosete, P.J. Camaro, and A.P. Salvanera. 2020. PCC issues paper on the Philippine digital commerce paper. PCC Issues Paper, no. 3. <https://www.phcc.gov.ph/wp-content/uploads/2020/07/PCC-Issues-Paper-2020-03-Issues-Paper-on-the-Philippine-Digital-Commerce-Market.pdf>.

			Research and Analytics Firms	Provider (Apple Pay, Paypal)	Fulfillment Service Firms
				Remittance Companies	Warehousing Companies
				Insurance Companies	
	Suppliers - Manufacturers, Wholesalers, Retailers				
	Buyers - Intermediate Buyers, Consumers Business Buyers				

Source: Author's compilation

The study will identify revenue models that are embedded within the value chain. In this regard, the study builds on the previous literature on documented revenue models (See Annex A for proposed revenue models). For each revenue model identified, the study will construct a notional use case of an end-to-end transaction, documenting all the actors and the flow of value between them. Take for example the revenue model adopted by E-Commerce platforms based on the sale and delivery of goods to retail consumers. A use case involving a User of a B2C E-Commerce platform such as Lazada who purchases physical goods online. A close inspection of all the transactions necessary and incidental to enact that use case will reveal the network of other actors and transactions in the ICT value chain, such as the telecommunications company that the User relies on for Internet connectivity, to the gateway used to transmit and settle payment, to the logistics companies and drivers involved in delivering the goods to the User's doorstep. Several flows of value can be mapped based on this use case alone: 1) the service fee paid by the User to the telecommunications company and 2) the payment for the goods processed through the payment gateway, which may have the following sub-component, such as the cost of the good, plus profit, due to the seller, the share of the E-Commerce platform, and the transaction fee of the payment gateway.

Table 2. Example use case for a revenue model (Sale and delivery of physical goods)

<i>Case: A User of an E-Commerce platform, using it to order consumer or retail goods</i>
Actions
The User connects to the internet through an information service provider or telecommunications company.

After establishing a connection to the internet, the User logs in to the E-commerce Platform.

- The User may need to submit personal information (name, address, payment information) to the E-Commerce Platform prior to login.

The User searches for preferred goods.

- The E-commerce Platform may also push suggested goods based on the User's preferences and prior interactions.

User selects the consumer/retail goods to be purchased.

- The User may need to compare several alternative versions or sellers of the goods.
- The User may need to communicate directly with the sellers of the products.

The User employs a payment system to pay for the consumer/retail goods.

- The User can pay through cash on delivery.
- The User can pay through a payment system provided by the E-Commerce platform.

The User receives delivery of the goods through a logistics/delivery company.

- The User may return the goods through a logistics/delivery company.

Source: Author's compilation

As a general rule, taxation usually does not apply to static aggregations of capital - but to flows of value. The payment of money from employer to employee is a flow that is subject to income tax (to be paid by the employee and withheld by the employer). VAT is based on the sale and consumption of certain goods, a flow of value between the consumer, who ultimately bears the tax burden, and the manufacturer or seller of the valuable goods. Even the capital gains tax is not a tax on capital per se but computed based on profits realized from the sale of an asset.

For each flow of value identified in each use case for a particular revenue model, the study will then determine: 1) Whether or not the transaction can have an international component; 2) The most appropriate legal characterization, for tax purposes of the flow of value; 3) The provisions of the tax law most applicable, if any, to the flow of value based on the legal characterization; and 4) The robustness of the applicable tax law, i.e., whether or not the tax law and the existing tax administration infrastructure can provide the following modalities of tax jurisdiction (See Annex B for an example of analysis for one flow of value based on the above use case):

1. Attribution to the source of revenue to local jurisdiction;
2. Computation of base and rate;
3. Surveillance mechanisms, such as data submissions, and audits); and
4. Enforcement mechanisms in case of delinquency.

The study will then identify and analyze the gaps in the local tax regime's ability to capture the flows of revenue and make tax administration unresponsive to the digital economy. These gaps may be organized based on the themes in the existing literature or based on critical business models and value chains.

4. Data Collection and Analysis

4.1. Capturing actors and flows of value

The researchers first organized the proposed list of revenue models based on the following categories:

1. Subscription - Requires the user or consumer to pay a recurring fixed or variable fee at regular intervals in exchange for regular receipt of goods or services;
2. Pay-As-You-Go - The user makes a one-time payment for the provision of a service, a right, or a tangible good;
3. Ad-Revenue - The publisher is paid based on the number of users that are served ads and/or their level of engagement;
4. Financing - The user avails of financial services (such as fundraising and extension of credit) and pays a fee or interest, or deposits money from which the platform profits from the float;
5. Commission - Usually applicable to multi-sided platforms that facilitate transactions for multiple buyers and sellers - the platform can take a share from all transactions;
6. Gaming/Gambling - The user pays a bet, and a payoff is conditioned on an uncertain outcome - based on luck or skill.

The researchers also took note of the variations in each of these revenue models, and examples for each variation. The subscription revenue model, for example, can be applied to media streaming platforms, such as Netflix. Many of the underlying technologies used by actors in the value chain also rely on this revenue model. Both end users and intermediaries (commerce platforms and payment systems) may use cloud technology as well as basic internet connectivity, which can be provisioned based on a subscription contract. At the same time, direct-to-consumer companies can deliver tangible goods such as food, clothing, or personal care consumables on a subscription basis.

The adoption of any of the above revenue models is not mutually exclusive. An actor in the value chain can adopt multiple revenue models and therefore be the nexus of multiple flows of value. For example, an e-commerce platform such as Lazada can:

1. Have a cut from all purchases that were mediated by its platform (Commission);
2. Receive fees for advertising (or preferential placement) of sellers in its platform (Ad-Revenue);
3. Operate an internal payment system that can extend credit to its users (Financing);

4. Conduct games and giveaways as part of a marketing campaign (Gaming);
5. Offer recurring delivery of goods and/or services based on a subscription contract (Subscription).

The study found 21 variations of these 5 revenue models (See Table 3 below), diverging along factors like the subject of the underlying contract (e.g., delivery of a tangible good, license to use a right, provision of a service), the number and/or typology of actors involved (e.g., the delivery of tangible goods will require a delivery service), as well as other contingencies that may be present in the revenue model (e.g., crowdfunding, as an investment will have a different risk model compared to a loan).

The researchers note that although there are many ways to compute the amount payable for transactions under an advertising-based revenue model, (e.g., based on each instance of product placement, or based on the number of views), there are no major structural differences between specific instances that would merit carving out sub-categories.

Table 3. Revenue models, implementation-based variations, examples

Revenue Model	Variation on Revenue Model	Examples
Subscription	Subscription for media content	Netflix, Apple TV
	Subscription for physical goods	Hello Fresh, Cratejoy
	Subscription to applications	Office 365, Zoho
	Provision of technology	Azure, AWS
	Access to information	LexisNexis, Bloomberg
Pay-As-You-Go	Licensing of media for consumption	iTunes, Sony Store
	Payment for applications	iOS App Store, Google Play Store
	Purchase and delivery of tangible goods	Lazada, Shopee, Amazon
	Provision of services	Task Rabbit, ODesk
	Rental of property	AirBnB, GetAround
	Ridesharing	Uber, Grab Car

Ad-Revenue	(No variations)	Google, Facebook Ad Services
Financing	Crowdfunding	Kickstarter, Indiegogo
	Peer-to-Peer Lending	Prosper, Lending Club
Commission	App Store	iOS App Store, Google Play Store
	Payment System	PayMaya, Gcash
	E-Commerce Platform	Lazada, Shopee, Amazon
	Service Platform	Taskus, Amazon Mechanical Turk
	Use of Assets	Rubberdesk, Uber
Gaming	Gambling	Ignition Casino, E-Sabong
	Microtransactions	Blizzard
	Loot Crates	Electronic Arts

Source: Author's compilation

For any particular variation of a revenue model, a subset of actors in the e-commerce value chain are linked to each other by flows of value. For any use case where the revenue model for the “Purchase and delivery of tangible goods” is exercised, there is the End User, who initiates the value chain by ordering the good from the Online Seller and sending a payment through a Payment Systems provider (such as Paymaya), which can keep the amount in escrow and remit to the E-Commerce Platform upon delivery. The E-Commerce Platform can then remit to the Online Seller (after taking its commission). Other intermediaries may also participate as origins or targets of flows of value: Technology Service Providers may provide critical technologies (storage, computation, and software) for both the E-Commerce Platform and the Payment Systems Provider. On the other hand, every actor in the value chain will subscribe to an Internet Service Provider for basic connectivity.

The researchers have isolated the usual actors involved in the transactions for Purchase and delivery of tangible goods, a variation of the Pay-As-You-Go revenue model:

Table 4. Actors involved in the revenue model variation - “Purchase and delivery of tangible goods”

Revenue Model Variation	Example	Actor
Purchase and delivery of tangible goods	Amazon, Lazada (Online Marketplace)	End-user
		Online Marketplace
		Online Seller
		Manufacturer
		Payment Systems Provider
		Technology Provider
		Internet Service Provider
		Advertiser
		Delivery Driver

Source: Author’s compilation

Each actor may be associated with several flows of value (either as its origin or its end-point). These flows can be enumerated based on: 1) Desk research and consultation with key informants; 2) Application interfaces (such as the cart and checkout options) of the actors websites; and 3) End user agreements upon signup. It should be noted that while the enumeration of these flows may not be exhaustive, the information collected from public sources may be sufficient to expose the structural properties of the flows within each revenue model.

Since every flow of value has an end-point (i.e., payment will always have a recipient), the researchers define a flow relative to its origin. In the case of an End-user participating in the “purchase and delivery of tangible goods” revenue model, there is a flow of value linking it to a Payment System Provider (through credit or initial deposit for remittance). The flows of value for the abovementioned revenue model are enumerated below:

Table 5. Actors and flows of value involved in the revenue model variation - “Purchase and delivery of tangible goods”

Revenue Model	Actors	Outward Flow of Value Related to Actor
Purchase and delivery of tangible goods – e.g., Amazon, Lazada (the Online Marketplace)	End-user (A1)	<ul style="list-style-type: none"> ● End-user pays through or (loans from) Payment Systems Provider (for Online Marketplace)
		<ul style="list-style-type: none"> ● End-user pays Internet Service Provider
	Online Marketplace (A2)	<ul style="list-style-type: none"> ● Online Marketplace pays Online Seller
		<ul style="list-style-type: none"> ● Online Marketplace pays Payment Systems Provider
		<ul style="list-style-type: none"> ● Online Marketplace pays Technology Provider
		<ul style="list-style-type: none"> ● Online Marketplace pays Internet Service Provider
		<ul style="list-style-type: none"> ● Online Marketplace pays through Payment Systems Provider (for Delivery Driver)
		<ul style="list-style-type: none"> ● Online Marketplace pays cashback (discount) to End-user
	Online Seller (A3)	<ul style="list-style-type: none"> ● Online Seller pays Advertiser
		<ul style="list-style-type: none"> ● Online Seller pays Manufacturer
	Manufacturer (A4)	
	Payment Systems Provider (A5)	<ul style="list-style-type: none"> ● Payment Systems Provider remits to Online Marketplace
		<ul style="list-style-type: none"> ● Payment Systems Provider remits to Internet Service Provider

		<ul style="list-style-type: none"> ● Payment Systems Provider remits to Delivery Driver
		<ul style="list-style-type: none"> ● Payment Systems Provider pays Internet Service Provider
	Technology Provider (A6)	<ul style="list-style-type: none"> ● Technology Provider pays Internet Service Provider
		<ul style="list-style-type: none"> ● Technology Provider pays Payment Systems Provider
	Internet Service Provider (A7)	<ul style="list-style-type: none"> ● Internet Service Provider pays Payment Services Provider
	Advertiser (A8)	<ul style="list-style-type: none"> ● Advertiser pays Online Marketplace
		<ul style="list-style-type: none"> ● Advertiser pays Online Seller
		<ul style="list-style-type: none"> ● Advertiser pays Internet Service Provider
	Delivery Driver (A9)	

Source: Author's compilation

4.2. Discovering network structure of actors and flows

Each actor in a given flow of value can be represented as $A_1...A_n$ in a 2-dimensional adjacency matrix and each flow, regardless of its amount or legal nature, can be abstracted into a discrete relationship r in the intersection between any two actors, with a value of 1 if there is a flow of value between the actors, and 0 if there is none.

Table 6. Adjacency matrix representation of the presence of flows of value in the revenue model variation - "Purchase and delivery of tangible goods" where r is any flow of value and $A_1...A_n$ is the set of actors participating in the value chain.

	A ₁	A ₂	A ₃	A ₄	A ₅	A ₆	A ₇	A ₈	A ₉
A ₁	-	0	0	0	1	0	1	0	0
A ₂	1	-	1	0	1	1	1	0	1
A ₃	0	0	-	1	0	0	0	1	0
A ₄	0	0	0	-	0	0	0	0	0

	A ₁	A ₂	A ₃	A ₄	A ₅	A ₆	A ₇	A ₈	A ₉
A ₅	0	1	0	0	-	0	1	0	1
A ₆	0	0	0	0	1	-	1	0	0
A ₇	0	0	0	0	1	0	-	0	0
A ₈	0	1	1	0	0	0	1	-	0
A ₉	0	0	0	0	0	0	0	0	-

Source: Author's computation

Legend:

A1 - End-user

A6 - Technology Provider

A2 - Online Marketplace

A7 - Internet Service Provider

A3 - Online Seller

A8 - Advertiser

A4 - Manufacturer (A4)

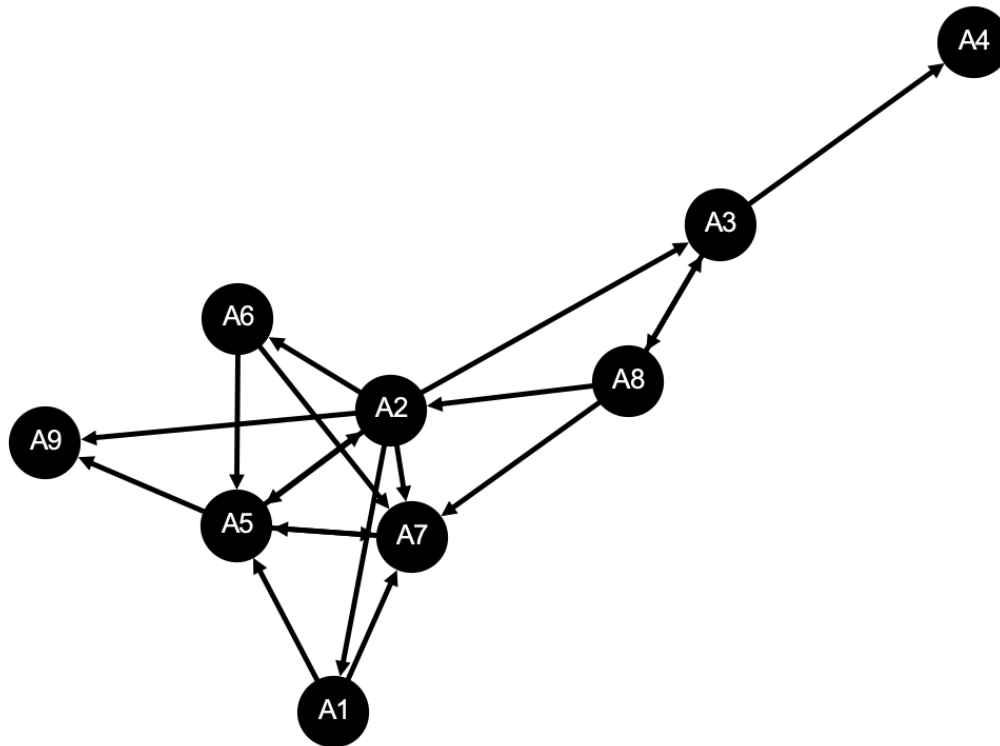
A9 - Delivery Driver

A5 - Payment Systems Provider (A5)

The same adjacency matrix can be represented visually as a graph structure - representing each actor as a node, and each flow of value between them as a line. Initially, this graph structure will only represent the presence and the direction of a flow of value. All the links will have the same weight (or "degree", in network parlance) and will originate from one node and terminate in another - in graph theoretic terms, it is a regular, directed graph. This rendering of the actors and the flows of value as a network makes it amenable to conduct both intuitive and mathematical analyses. This could provide not only a positive description of the flow of value along the value chain but could also be used to make normative evaluations to guide tax policy:

1. *Overall structure of the network* - The network of revenue flows may have a high degree of centralization, which means that taxation can be focused on actors at the center of the network;
2. *Important actors* - In addition to central actors, the graph can also identify those at the edge of networks, which are likely those who initiate the transactions or the ultimate beneficiary of the value flows;
3. *Critical paths* - Construction of tax policy (or implementing it through investigation and enforcement action) will involve traversing components of the network at the most optimal path to trace the flow of value.

Figure 1. Graph representation of the presence of flows of value for “Purchase and delivery of tangible goods”



Source: Author’s computation

Legend:

A1 - End-user

A2 - Online Marketplace

A3 - Online Seller

A4 - Manufacturer

A5 - Payment Systems Provider

A6 - Technology Provider

A7 - Internet Service Provider

A8 - Advertiser

A9 - Delivery Driver

Purposive sampling of revenue models and networks for analysis. From this data, it may be possible to derive the graph structure of all the revenue models previously enumerated. However, to simplify the analysis and presentation, adjacency matrices will only be made for the following revenue model variations: 1) Purchase and delivery of tangible goods; 2) Subscription for media content; and 3) Gaming and/or gambling - All of which share the same essential network structure.

This abstraction of all revenue models into three “exemplar networks” can be justified by the following points:

1. The three exemplars already cover all the categories of contractual subjects of the revenue models enumerated: tangible goods, intangible goods/services,
2. The advertisement revenue model can be folded into these exemplars by including the advertiser (and all related flows of value) in the network
3. The commissions-based revenue model can also be accounted for by the incoming flows of value to mediating platforms (like online marketplace, or media streaming provider)
4. The configuration of actors and flows or value for all the other revenue models - the number of actors, their relationships, are already reflected by the exemplars.

4.3. *Discovery of completeness of tax regime modalities*

Once the exemplar networks are identified, the researchers mapped each flow with modalities of constraint that are available in the tax regime. For each flow of value documented, the researchers found and matched the appropriate provision of tax law that relates to the flow of value through any of the following modalities discussed in Part III: 1) Attribution to the source of revenue to the local jurisdiction; 2) Computation of base and rate; 3) Surveillance mechanisms, such as data submissions, and audits; 4) Enforcement mechanisms in case of delinquency. Cumulatively, these modalities actualize taxation of a particular flow of value. As a practical matter, each must be present to make imposition of tax on an actor possible. Thus, the presence of a provision corresponding to each modality for every local recipient of the flow is encoded as a score of “1” in a new adjacency matrix. The total score corresponding to each flow can then be considered as a metric of the robustness (or completeness) of the tax regime corresponding to the flow of value under consideration. A score of “5” (4 points for all the modalities, plus the initial score of “1” representing the presence of a revenue flow) means that the tax regime completely covers the flow of value.

Table 7. Adjacency matrix representation of the robustness of tax regime in the revenue model variation - “Purchase and delivery of tangible goods” where r is any flow of value and A1...An is the set of actors participating in the value chain, where all parties are based in the Philippines

	A ₁	A ₂	A ₃	A ₄	A ₅	A ₆	A ₇	A ₈	A ₉
A ₁	-	0	0	0	5	0	5	0	0
A ₂	5	-	5	0	5	5	5	0	5
A ₃	0	0	-	5	0	0	0	5	0
A ₄	0	0	0	-	0	0	0	0	0
A ₅	0	5	0	0	-	0	5	0	5
A ₆	0	0	0	0	5	-	5	0	0
A ₇	0	0	0	0	5	0	-	0	0
A ₈	0	5	5	0	0	0	5	-	0
A ₉	0	0	0	0	0	0	0	0	-

Source: Author’s compilation

Legend:

A1 - End-user

A2 - Online Marketplace

A3 - Online Seller

A4 - Manufacturer

A5 - Payment Systems Provider

A6 - Technology Provider

A7 - Internet Service Provider

A8 - Advertiser

A9 - Delivery Driver

This will generate a directed, weighted graph of the flows for the above revenue model. The graph reflects not only the presence and direction of the flow, but also the extent to which the law covers the flow (and therefore the likelihood that the flow will be subject to taxation). Given that coverage for the modalities are complete for all the flows previously enumerated, the weighted graph should have the same structure as Figure 1, but with different weights attached to each link.

The above analysis only holds for the assumption that all recipients of the flows of value are local persons or entities. However, the primary problem in the taxation of the digital economy is the cross-border nature of transactions and actors. To introduce an international component to the model, the researchers also took into consideration the applicable modalities of taxation provided by the Philippine's tax treaty with the United States. This means that for each of the exemplar networks, data was collected under the assumption that any of the relevant actors can be based in the U.S.

Purposive sampling of U.S. based online platforms. Consideration of every foreign actor covered by every tax treaty will result in multiplication of the frames of analysis. Not only are there multiple tax treaties that could cover actors in multiple jurisdictions, there can be multiple network models depending on how many actors operate abroad. Instead of going through every network permutation, the researchers will focus on scenarios where the platform (the Media Provider, the Online Marketplace, or the Gaming Platform) is based in the U.S. This constraint aligns with the assumption embedded in most proposals for tax reforms that online platforms are an important subject of taxation. This is also supported by their central location in the network of revenue flows. On the other hand, the study prioritizes analysis of online platforms located in the United States. This constraining assumption can be justified due to the choice of the U.S. as the corporate residence for most of these major online platforms (or their enabling technological service providers).

However, this means a possible multiplication of the frames of analysis, since the researchers will need to account for changes in a network should only one (or a combination) of the actors be based in the U.S. Instead of going through every network permutation, the researchers will focus on the scenario.

Evaluation of the existing rules applicable to a U.S.-based online platform (such as Netflix or Amazon) yields the following adjacency matrix:

Table 8. Adjacency matrix representation of the robustness of tax regime in the revenue model variation - “Purchase and delivery of tangible goods” where r is any flow of value and A1...An is the set of actors participating in the value chain, where the online platform is based in the US

	A ₁	A ₂	A ₃	A ₄	A ₅	A ₆	A ₇	A ₈	A ₉
A ₁	-	0	0	0	5	0	5	0	0
A ₂	1	-	1	0	1	1	1	0	1
A ₃	0	0	-	5	0	0	0	5	0
A ₄	0	0	0	-	0	0	0	0	0
A ₅	0	1	0	0	-	0	5	0	5
A ₆	0	0	0	0	5	-	5	0	0
A ₇	0	0	0	0	5	0	-	0	0
A ₈	0	1	5	0	0	0	5	-	0
A ₉	0	0	0	0	0	0	0	0	-

Source: Author’s computation

Legend:

A1 - End-user

A6 - Technology Provider

A2 - Online Marketplace

A7 - Internet Service Provider

A3 - Online Seller

A8 - Advertiser

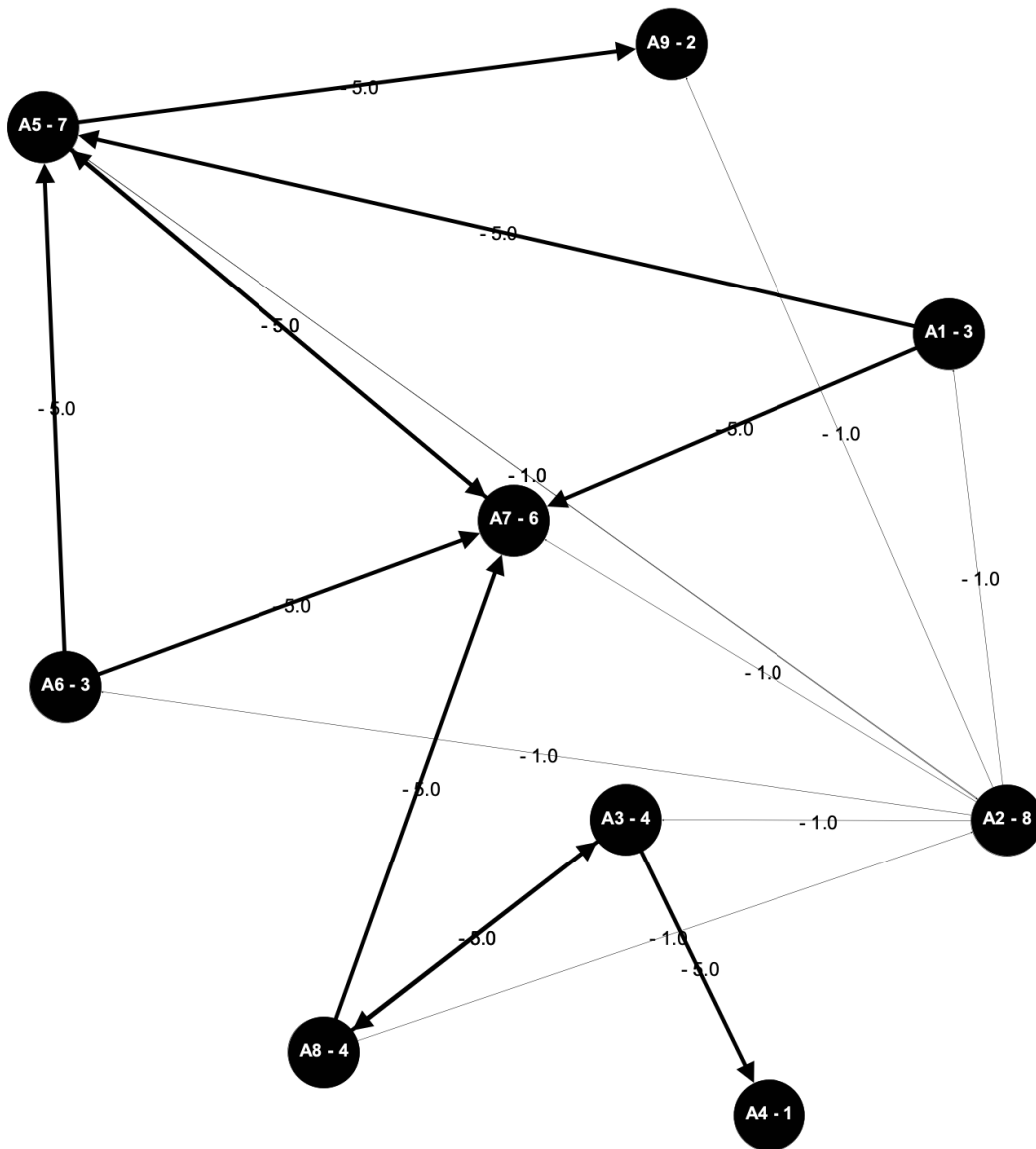
A4 - Manufacturer

A9 - Delivery Driver

A5 - Payment Systems Provider

This can be rendered into a graph with the same network structure of value flows for the selected revenue model. Although this is structurally the same as the previous graph, the placement and placing of its components have been rearranged to increase visibility of the following labels: The degree count for each node (located inside the node, separated from the node name by a dash), as well as the weight of each connection, representing the robustness of the local tax regime relative to the revenue flow.

Figure 2. Weighted, directional network of value flows reflecting robustness of tax law applicable to the flow



Source: Author's computation

Legend:

A1 - End-user

A2 - Online Marketplace

A3 - Online Seller

A4 - Manufacturer

A5 - Payment Systems Provider

A6 - Technology Provider

A7 - Internet Service Provider

A8 - Advertiser

A9 - Delivery Driver

5. Findings and Recommendations

5.1. Centrality of platforms

Platforms - such as online marketplaces, streaming services, and gaming sites - occupy a central place in the network of value flows. In the case of the online marketplace considered in Figure 2, two network measures are of interest: 1. Its “closeness centrality”, which is a node’s inverse average distance from all other nodes⁷² and 2. Its “betweenness centrality”, the extent to which the node lies on the shortest path between all other nodes.⁷³ The online marketplace in the above analysis has a closeness centrality of 0.8, the highest for the entire network. This suggests that this node is poised to readily acquire and distribute information and resources relative to others in the network.⁷⁴ On the other hand, the online platform has the highest level of betweenness centrality at 25. This can be interpreted as a high degree of prestige and influence in the network, under the assumption that other actors in the network will gravitate towards the shortest path.⁷⁵

The digital platform’s location in this structure aligns with the intuitive notion (as expressed in proposed reforms) that platforms should be subject to additional tax obligations. Given the increased wealth and power of these online platforms, governments can make the policy call of subjecting them to a greater tax burden.

On the other hand, a platform’s location in the network is characterized by both inflows (from end-users and advertisers) and outflows (to the sources of its offerings, as well as the providers of underlying functionality and connectivity). This suggests that in addition to being the ultimate recipient of value in its own right, a platform is also an intermediary - passing forward payments to individual online sellers, as well the ultimate sources of the goods and services offered. Flows of value can also correspond with flows of information and control. This makes them uniquely positioned to contribute in other ways - online marketplaces and platforms can be considered withholding agents - precomputing the tax payable by its users, and remitting the tax due to the BIR. Payment systems providers are also centralized actors that largely act as intermediaries, and can provide some information as to the income and purchases of actors in the network.

Currently, the increasing importance and power of platforms, and the actual modalities required to make tax law meaningful are not sufficiently addressed by the proposed revisions. The tax liability is deployed as a VAT that will be borne by users, the actors at the edge of the network. Users are the points where flows of value initiate and terminate, and from a collection and enforcement perspective it is easier to subject them to an additional tax burden. There is some recognition of the inward flow of information to platforms by drafting so-called digital service providers (including non-resident digital service providers) to assess, collect, and remit the VAT from their users.

⁷² A node’s distance is a function of the number of links required to traverse it from another node. The higher a node’s closeness centrality (e.g., closer to a perfect closeness centrality of 1.0) the shorter its distance from all other nodes. See Neo4j. Closeness centrality. <https://neo4j.com/docs/graph-data-science/current/algorithms/closeness-centrality/>.

⁷³ There are several algorithms for calculating a node *n*’s betweenness centrality, all of them involve computing the number of shortest paths from one given set of nodes to another, and then determining the number of those shortest paths that pass through *n*. See Neo4j. Betweenness centrality. <https://neo4j.com/docs/graph-data-science/current/algorithms/betweenness-centrality/>.

⁷⁴ Borgatti, S. 2005. Centrality and network flow *Social Networks* 27 (2005):55-71. <http://www.analytictech.com/borgatti/papers/centflow.pdf>.

⁷⁵ Krebs, V. 2002. Mapping networks of terrorist cells *Connections* 24 (2002):43-52. <http://www.orgnet.com/MappingTerroristNetworks.pdf>.

Although the draft law attributes income derived by non-resident digital services from local users as taxable income, it does not provide details as to how other modalities of tax law can be implemented for such actors. It is based on non-resident services registering themselves into a system. The law does not specify how non-resident digital services can be made to comply - either with initial registration or subsequent tax obligations. Due to the distributed, international nature of the Internet, and without legal and practical tools to make jurisdiction meaningful, no local legislation can adequately capture revenue from online transactions.

5.2. *Disparity of tax coverage*

The matrix in Table 7 shows that there is already a robust legal coverage for taxing the online transactions of local actors. Recently, the BIR has released interpretative issuances that align online transactions with existing tax laws, such as RMC 60-2020 for online sellers and RMC 25-2022 for “e-sabong operators.” RMC 60-2020 is mostly concerned with the revenue received by online sellers, that is, operators of individual “stores” hosted in an online market platform, rather than the revenue centralized by the online market platform itself. On the other hand, RMC 25-2022 clarifies how existing tax law applies to e-sabong platforms operating locally, i.e., a) a franchise tax based on the PAGCOR gaming franchise extended to the e-sabong operator b) regular income tax, and c) VAT.

These issuances are based on existing laws - they only clarify how the current tax regime can apply to online transactions of local actors. They do not impose new tax obligations or new methods of collecting and enforcing tax liabilities.

Despite these developments, there remains little to no legal coverage for platforms that are located abroad in either of these issuances. This is attributable to the territorial nature of tax law. Tax treaties, such as the one executed with the United States, exist to precisely exclude the income of foreign companies from national tax jurisdiction - even if the revenue is derived from users residing in the Philippines. In the above network analysis, this is reflected in the attenuated lines that connect the digital platforms to the rest of the network. The weighted degree of its node - in this case a measure of the robustness and applicability of the local tax regime to its revenue flows - is low compared to the rest of the network. With a weighted degree of 8, the digital platform ranks as the third lowest, higher only than the delivery driver (6) and the manufacturer of the goods (5). This suggests that despite the above mentioned centrality of the digital platform, it is underutilized as a focal point of tax administration.

The OECD framework can address this imbalance, providing for attribution to the source state where the users are located and provides for formulas for determining the tax liability of online platforms - even if these are non-residents of the taxing jurisdiction. However, it does not have details as to how local tax authorities can operationalize this new taxation authority. Specifically, information sharing, payment, security mechanisms that will allow local tax authorities to conduct computation, surveillance, and collection and execution - all the modalities for a full and robust tax regime.

5.3. *Recommendations for Reform*

Based on the findings on the structure of digital commerce value chain, and its possible interactions with both current and proposed tax regimes, the following policy prescriptions are recommended:

Optimizing existing tax authority over platforms

The State's current toolset for tax administration was developed and optimized for brick-and-mortar businesses that can be fixed into physical places. In the virtualized, and necessarily cross-border world of digital transactions, the effectiveness of these measures are limited. The ease through which online accounts can be set up and deployed as digital storefronts, often anonymously, by users operating from home, and through platforms that operate abroad, provide a practical limit to the BIR's enforcement powers. Given the extensiveness of the digital commerce value chain, and the variety of transactions involved tax administration will depend on the BIR's limited ability to take on the additional computational and logistical burden.⁷⁶ Nevertheless, there are steps that can be taken to optimize existing tax authority for those junctures in the value chain: At the level of platforms or payment systems can be deputized as withholding agents of the income of online sellers or the value added-tax due from users. Congress can pass legislation that specifically concerns the central role of online platforms and payment systems, providing additional tax liabilities or requiring them to act as withholding agents, or to provide data required for the determination of the tax liability of related actors and transactions. Concentrating on these key participants can allow tax administration efforts to scale, since each of these centralized nodes can provide information and control over a significant number of users. Policy makers expect digital platforms - even those based abroad - to be compliant with these additional tax obligations. Despite being isolated from local jurisdiction, international corporations are cooperative since they prefer to have continued access to their local users and partners (such as payment systems, logistics) without legal and reputational complications.⁷⁷

Digital-ready tax administration

To verify compliance with the withholding and remittance functions however, the BIR will need to obtain some awareness over both transaction data (users, sales) and logic (procedures and algorithms) of these platforms. This will be analogous to the level of access that the BIR has over point-of-sales systems. There is, however, a difference in scale and sophistication that will require the BIR to upgrade its knowledge base. Centralized digital platforms would have a higher volume of transaction data spread across more users. These systems would have more functionality compared to on-site POS systems, and could be distributed across several machines. These conditions will require the BIR to have greater competence for understanding online systems (at the network, hardware, and software level), as well as validating and processing voluminous data sets.

Expanded scope for investigation and liability

Sophisticated data analysis may reveal that certain behavioral patterns that may not have apparent connection with tax irregularities will nevertheless correlate with the latter and require further investigation. Such behavioral patterns may not square with traditional legal

⁷⁶ Gomez Interview, *supra* note 60.

⁷⁷ Key Informant Interview with Usec. Mark Joven, Head, Department of Finance International Finance Group, September 23, 2022 and November 30, 2022 ("Joven Interview"). On file with the PIDS.

requirements that would require evidence of some overt act, or a fully-formed theory of causation that will qualify as the “probable cause” required before even starting investigations. Probabilistic signals coming from the analysis of very large data sets may not be fully explainable as legal liability at the outset, but can be the starting point of investigations. This will require, in addition to clarificatory rules, a cultural shift for prosecutors and judges. Additional training on both the promises and perils of these analytical tools can be accommodated within the framework of Mandatory Continuing Legal Education (for practitioners) and the Philippine Judicial Academy (for judges).

Engagement at the international level

Optimizing the local tax base and passing unilateral measures can only go so far. Even assuming that the BIR can scale its tax mapping and inspection operations to include private residences without raising constitutional objections - there is the question as to whether or not it can apply the same to non-residents. In this case it will be a matter not just of maximizing tax collection, but of equity and long term-development: Local users and the country’s nascent digital commerce sector bear the tax burden while their foreign counterparts evade liability. Non-resident providers - usually large multinational corporations - are the ones that have gained the most from digital markets while minimizing the tax impact of their activities. Beyond the immediate need of expanding the tax base and raising new revenue, there is growing political pressure to curb the power of “big tech” and require them to pay their fair share. Imposing unilateral measures on non-residents through local legislation alone, however, will depend on the non-resident’s (and their home jurisdiction’s) incentives to cooperate with tax administration. Barring that, cooperation may be secured through Philippines willingness and capacity to use the blunt tool of complete denial of market access - a move the effectiveness of which is dependent on the value of the local market, and our trading position relative to the non-resident provider’s home state. Cross-border tax administration will depend on a baseline of international cooperation, which can be secured either through: Renegotiation of bilateral tax treaties with countries where online platforms are sited, carving out an exception to the territoriality principle for a certain class of actors and online transactions. Unless smaller economies find additional leverage, or combine their negotiating power - such bilateral treaties can only offer limited gains. The Philippines should continue to explore multilateral options for the reallocation of taxing rights as well addressing BEPS. These include regional tax treaties (e.g., at the ASEAN level) and the OECD framework treaty. Efforts at negotiating and crafting the provisions should take into account the Philippines’ trading power relative to other countries (especially countries where platforms are located), and its comparative ability to exercise jurisdiction. Policymakers acknowledge that there are significant challenges to this approach to tax reform. Each country has developed its tax regime based on idiosyncrasies of its history, political and economic system, and relative bargaining power. National legislatures cannot be expected to easily revisit the commitments and compromises they have already navigated (often at great political cost).⁷⁸ For example, the OECD framework proposes the reduction of corporate income taxes to 15%. Since the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act only recently lowered the Philippine corporate income tax from 30% to 25%. A further reduction to 15% is an aggressive target that may not be fiscally and politically feasible. To make the multilateral approach more feasible, the Philippines can consider an incremental approach: Entering into an OECD Framework-like agreement with regional blocs (ASEAN, EU) and negotiating as an organization to counterbalance the larger

⁷⁸ Id. Usec Joven also points out that tax law implicates issues of fairness, as well as the sovereignty of states. For these reasons, tax law tends to be “sticky” and resistant to change.

economies. It can also limit the scope of initial multilateral agreements to subjects that can enhance tax administration without implicating the political aspects of tax law - such as information sharing between tax authorities.

Building upon earlier work from PIDS, this study proceeds to map and evaluate the legal aspect of the digital taxation problem. It adopts a model of the digital commerce market as businesses that are linked along a value chain. For any given digital transaction, revenue flows from users to intermediaries (platforms, payment systems) to beneficiaries (manufacturers, IP right owners) and other supporting participants (logistics companies and drivers). The study mapped the likely transactions and the flows of notional value chains: 1. For the purchase and delivery of physical goods; 2. Access to media streaming services; 3. Gambling and/or gaming. Mapping these transactions reveal a prototypical network structure of participants and value flows. The study then evaluates the extent to which existing tax laws can capture these value flows: That is, the extent to which the text of the law 1. Attributes to the source of revenue to local jurisdiction; 2. Computes the base and rate; 3. Surveillance mechanisms, such as data submissions, and audits); and 4. Enforcement mechanisms in case of delinquency. The analysis reveals a common structure to digital commerce value chains - one defined by features such as the centrality of platforms and payment systems. It also surfaced gaps in existing tax policy. Based on this analysis, as validated and enriched through key informant interviews, the researchers put forward an agenda for reforming Philippine tax law and policy.

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7. Annex A. Revenue Models for Online Businesses

- I. Subscription - user pays a recurring fixed fee (for delivery of goods and services):
 - A. For access to digital content
 - 1. Media subscription services - Netflix, Spotify
 - 2. News or magazine subscription - New York Times, Inquirer
 - B. Subscription for physical goods - Hello Fresh
 - C. Subscription to applications - Google Workspace, Headspace
 - D. Provision of technology (bandwidth, computation, storage) - AWS, Azure, Google Cloud
 - E. Access to information
 - 1. Database subscription - Westlaw, Lexis Nexis
 - 2. Access to user information
 - a) Profile and behavioral info (usually for serving ads - e.g. Facebook and Google)
 - b) Contact information for direct solicitation and promotion - Melissa
- II. Pay-per-view (or pay as you go)
 - A. Payment for media
 - 1. Buy or rent movies, albums - iTunes
 - 2. Licensing of IP - photos, videos, fonts and other design elements - Behance, Adobe
 - B. Pay per view access to documents - Scribd
 - C. Payment for apps - Apple App Store
 - D. Purchase and delivery of tangible goods - Amazon, Lazada
 - E. Delivery of services
 - 1. Freelance work - ODesk
 - 2. Ridesharing - Grab
- III. Ad-revenue Model
 - A. Payment based on number of clicks or views - Youtube
 - B. Preferential treatment of content (boosting) - Facebook
 - C. Affiliate links or codes - Podcasters
 - D. Sponsorship of content - Vloggers
 - E. Product placement in content
 - 1. Influencer use of product
 - 2. Use of product in fictional narrative

- IV. Percentage of online transactions (commission based)
 - A. App store
 - 1. Apple and Google app stores for mobile
 - 2. Steam Store for games
 - B. Payment systems
 - 1. Convenience or service charges - on the retailer side
 - 2. Financial charges - on the buyer side
 - 3. Interest on float
 - C. E-commerce platforms
 - D. Service platforms
 - 1. Ride hailing - Grab
 - 2. Delivery - Grab, Foodpanda
- V. Gaming
 - A. Gambling
 - 1. Chance-based - Bingo, roulette
 - 2. Skills-based - Horse races, cockfights, and poker
 - B. Micro-transactions - Ubisoft
 - C. Loot crates - Electronic Arts
- VI. Donation/pay-what-you-want
- VII. Special cases:
 - A. Cryptocurrencies
 - B. NFT's

Notes

1. Businesses can take a hybrid, multi-tiered revenue model, e.g. offer a free version of their offerings, with tiered pricing for additional features
2. Multi-sided markets can involve multiple revenue streams, e.g., a social media site can:
 - a. Receive a share of advertising revenue displayed on its users accounts
 - b. Get additional fees to boost content
 - c. Get a percentage of user-to-user transactions

8. Annex B. Sample Revenue Flow Analysis

Use Case	Transaction	Cross Border Issues	Flow of Value	Tax Treatment	Attribution	Computation	Surveillance	Enforcement
A User of an E-Commerce platform, using it to order consumer or retail goods	The User connects to the internet through an information service provider or telecommunications company	Requires connectivity equipment from provider to be installed within the jurisdiction Telecommunications companies are considered public utilities and are subject to nationality requirements under the law	The User pays a monthly service/subscription fee to the telecommunications company	A VAT for services to be paid by the User	The taxable incident is the purchase of services by the User from the Telecommunications companies. Input tax evidenced by a VAT invoice or official receipt shall be creditable against the output tax for purchase of services on which a value-added tax has been actually paid (SEC. 110 [A] (b), NIRC)	There shall be levied, assessed and collected, a value-added tax equivalent to twelve percent (12%) of gross receipts derived from the sale or exchange of services, including the use or lease of properties. (SEC. 108 [A], NIRC)	A VAT-registered person shall issue: (1) A VAT invoice for every sale, barter or exchange of goods or properties; and (2) A VAT official receipt for every lease of goods or properties, and for every sale, barter or exchange of services. (SEC. 113 [A], NIRC) The following	If a person who is not a VAT-registered person issues an invoice or receipt showing his Taxpayer Identification Number (TIN), followed by the word "VAT", the issuer shall, in addition to any liability to other percentage taxes, be liable to: (1) The tax imposed in Section 106 or 108 (12%) without the benefit of any input tax credit; and (2) A 50% surcharge

							<p>information shall be indicated in the VAT invoice or VAT official receipt:</p> <p>(1) A statement that the seller is a VAT-registered person, followed by his Taxpayer's Identification Number (TIN); and</p> <p>(2) The total amount which the purchaser pays or is obligated to pay to the seller with the indication that such amount includes the</p>	<p>under Section 248(B) (25% or 50%) of this Code (SEC. 113 [D], NIRC)</p>
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							<p>value-added tax. Provided, that:</p> <p>(a) The amount of the tax shall be known as a separate item in the invoice or receipt; xxxxxx</p> <p>(3) The date of transaction, quantity, unit cost and description of the goods or properties or nature of the service; and</p> <p>(4) In the case of sales in the amount of One thousand pesos (P1,000) or more where the sale or transfer is</p>	
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							<p>made to a VAT-registered person, the name, business style, if any, address and Taxpayer Identification Number (TIN) of the purchaser, customer or client. (SEC. 113 [B], NIRC)</p> <p>In addition to the regular accounting records required, a subsidiary sales journal and subsidiary purchase journal shall be maintained on which the daily sales and purchases are recorded. The</p>	
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							subsidiary journals shall contain such information as may be required by the Secretary of Finance. (SEC. 113 [C], NIRC)	
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				<p>An income tax to be paid by the telecommunications provider</p>	<p>The taxable incident is the providing of services (taxable services), by the Telecommunication companies to The User.</p> <p>Telecommunications companies are public utilities required to be registered under Philippine law. Accordingly, services they render inside <i>and</i> outside of the country [Sec. 22(B), NIRC in relation to Sec. 27] are subject to corporate income tax.</p>	<p><u>Normal Corporate Income Tax (NCIT)</u></p> <p>NCIT for domestic corporations (DC) is computed as follows:</p> <p>[Taxable Income x Tax Rate]</p> <p>Currently, the tax rate for DCs is generally at 25%, as amended by the <i>CREATE Law</i>. However, if the DC has net taxable income of not more than P5M and assets not more than P100M, a lower tax rate of 20% is</p>	<p>Every corporation is required to file the following ITRs:</p> <ul style="list-style-type: none"> in duplicate a <u>quarterly summary declaration</u> of its gross income and deductions on a cumulative basis for the preceding quarter or quarters upon which the income tax [Sec. 75, NIRC] a final adjustment return covering the total taxable income for the preceding calendar or fiscal year [Sec. 76, NIRC] <p>Other</p>	<p>Failure to pay will lead to three possible penalties:</p> <ol style="list-style-type: none"> A one time surcharge of either 25% or 50% of the basic tax [Sec. 248, NIRC] 12% annual interest [Sec. 249, NIRC as amended by <i>TRAIN Law</i>] one-time compromise penalty in lieu of criminal liability [RMO 1907]
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						<p>imposed.</p> <p>Taxable Income is computed as follows:</p> <p>(Gross Receipts - Cost of Services - Sales Returns, Discounts, and Allowances - Deductions)</p> <p><u>Minimum Corporate Income Tax (MCIT)</u></p> <p>Note however that in the event that the MCIT is greater than the NCIT, beginning the fourth year of operations onwards, the former will be</p>	<p>circumstances of filing:</p> <ul style="list-style-type: none"> • <u>Place</u> of filing- filed with the authorized agent banks or Revenue District Officer or Collection Agent or duly authorized Treasurer of the city or municipality having jurisdiction over the location of the principal office of the corporation filing the return or place where its main books of accounts and other 	
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						<p>imposed [Sec. 27, NIRC].</p> <p>MCIT is computed as follows:</p> <p>[Gross Income x 2%*]</p> <p>*<i>CREATE Law</i> provides that from July 1, 2020 to July 30, 2023, MCIT rate is at 1%</p>	<p>data from which the return is prepared are kept. [Sec. 77(A), NIRC]</p> <ul style="list-style-type: none"> • Time of Filing the Income Tax Return. — The corporate quarterly declaration shall be filed within sixty (60) days following the close of each of the first three (3) quarters of the taxable year. The final adjustment return shall be filed on or before the fifteenth (15th) day of April, or on 	
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							or before the fifteenth (15th) day of the fourth (4th) month following the close of the fiscal year, as the case may be. [Sec. 77(B), NIRC]	
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