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Digital Services Taxes: Multilateral and Unilateral Efforts and an Overview of Recent Economic Models

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Abstract

This paper aims to describe the state of multilateral and unilateral efforts to tax digital services; summarize the state of economic analysis on digital services taxes; and provide an overview of where the Philippines stands in relation to other countries in digital service taxation. On-going efforts by other countries on digital taxation may have an impact on tax structure in the Philippines. The Philippines is currently drafting a law imposing VAT on these services, which is overdue and which may still be refined in some ways, but rationales exist as well for proposing other digital service taxes (DSTs), especially on revenue streams of large nonresident digital platforms. To do this, the country must update its tax laws further to account for the peculiarities of digital businesses. Economic models that explore the impact and incidence of DSTs are in nascent stages of development, but offer good insight for policymakers. The key is to recognize that digital platforms are 2-sided markets. In such markets, users on one side of the market can create value for participants on the other side. Digital platforms can capitalize on network externalities created by both sides (for instance, among users and advertisers) as well as scale economies and earn location-specific rents, which is one basis for DST taxation. Given these traits of 2-sided digital markets, traditional outcomes of taxation in one-sided market models may not apply. The paper ends by discussing open and partially addressed policy questions that need to be resolved soon.

Keywords: Digital service taxation, two-sided markets, taxation, tax law

JEL Codes: H2, H22, K34

I. Introduction

This paper serves the following objectives:

1) To describe the state of multilateral and unilateral efforts to tax digital services
2) To summarize the state of economic analysis on digital services taxes
3) To explore the normative grounds for taxing digital services based on economic theory
4) To provide an overview of where the Philippines stands in relation to other countries in digital service taxation

In the latest SONA, President Ferdinand Marcos Jr. referred to taxes on digital services as among the potential sources of revenues for his administration. Past Congresses have passed bills on the subject, but there are no existing laws that specifically cater to the taxation of digital

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services. This paper aims to review the latest bill aiming to tax digital services and survey the literature.

In the latest SONA, President Ferdinand Marcos Jr. referred to taxes on digital services as among the potential sources of revenues for his administration. Past Congresses have passed bills on the subject, but there are no existing laws that specifically cater to the taxation of digital services. This paper aims to review the latest bill aiming to tax digital services, House Bill No. 7425

The following section will describe the multilateral effort to tax digital services. Sections after this will describe the unilateral effort to tax digital services, which predates the multilateral effort. The separate efforts to tax digital services country by country have also been accompanied by the development of and application of economic theory to rationalize taxation of such services without physical presence. It turns out that standard economic logic can be used to justify taxation of digital services across market jurisdictions without need for physical or permanent establishment.

Digital services taxes in the world today include the VAT and taxes on other digital revenue streams. According to Mullins (2022), digital space taxes apart from VAT can be categorized into: (a) DST - a direct tax on income from the digital services (the name of the tax may vary in each country); and (b) withholding taxes - withholding tax on payments to a foreign supplier of digital services. This may be achieved by expanding the definition of royalties subject to withholding tax to cover payments for certain digital services. Application of the VAT and DST on the same revenue streams is possible – they are not mutually exclusive (some theoretical papers in the literature examine how the two taxes interact with one another – more on this later). Hence, countries which aim to impose both VAT and DST on digital services must prepare their legal and administrative frameworks to accommodate these kinds of taxes.

Majority of countries with a discrete digital tax apply a withholding tax on payments to nonresidents for digital services. The next sections describe efforts to tax digital services in different parts of the world and discuss the emerging theories of digital taxation.

II. General Description of Multilateral Efforts to Tax Digital Services

This section presents a very general view of the multilateral efforts to tax digital services. The objective is to merely introduce and motivate the subject. For greater detail, one is referred to papers written by the OECD on BEPS 2.0 (2019, 2020, 2021) and also to Navarro (2021).

The OECD, in concert with the G20 group of countries, within its program for addressing activities related to tax base erosion and profit shifting (BEPS), has been spearheading multilateral efforts to tax digital services since 2015. The latest BEPS effort (named the Inclusive Framework for BEPS 2.0) is defined by a 2-pillar strategy for taxing digital services. Broadly, BEPS 2.0 aims to protect tax bases around the world, reduce tax competition and discourage tax arbitrage by firms. Digital taxation is addressed by BEPS 2.0 because a substantial portion of the creation of value in digital platforms has been hereto for created by users in countries where digital platforms do not presently have a physical presence or "permanent establishment". Since having a permanent

establishment in a market jurisdiction (a nexus) is a precondition for taxation in the traditional sense, then digital businesses are usually not taxed in places where their users are located. Hence, the BEPS 2.0 process aims to redefine the nexus of taxation in its rules.

Using thresholds and exclusions, the 2 pillars define the type and size of enterprises that are to be taxed, determine the allocable tax base by formula and set the tax rates to be applied to the bases. Countries that adopt these rules are expected to in turn repeal or amend some of their tax laws so as not to be inconsistent with BEPS 2.0. The aim is to reduce the intensity of tax competition across countries, level the playing field across enterprises and reduce the extent of tax uncertainty for them.

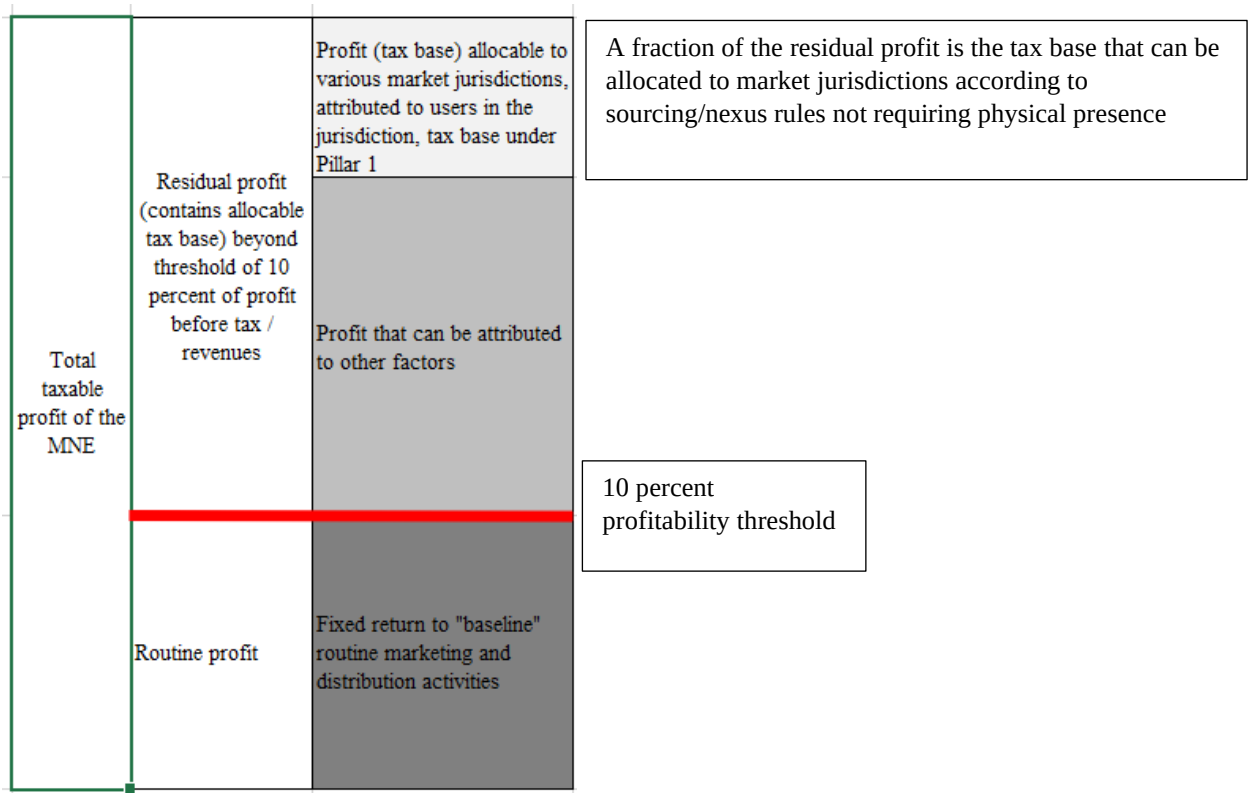
Pillar 1

Pillar One of BEPS 2.0 realigns sovereign taxing rights more closely with local market engagement of large multinational enterprises through the application of nexus rules (generally, a nexus for tax purposes exists for multiplatform digital service providers wherever platform users create added value for them, even if the platform has no physical establishment there). Determining the nexus of taxation then allows one to apply rules that then allow for the attribution of revenues treated as deriving from a particular market jurisdiction. Hence, a portion of profits of the largest and most profitable groups is allocated to these market jurisdictions via a sourcing rule. The general principle is that there are reasonable grounds to tax residual profit in jurisdictions where goods and services are used or consumed.

Under Pillar 1, the tax base is derived in a multi-filter, multi-step process. A size threshold criterion is applied as the scope of the tax regime will be limited to large multinational enterprises (groups with greater than €20 billion in worldwide revenues). Next, the tax base will be derived for those enterprises in-scope. To the adjusted profit before-tax of the in-scope firms, a threshold rule is then applied to derive the unadjusted tax base. The unadjusted taxable base for each in-scope firm is the value of any profit before tax above or in excess of 10 percent of revenues.
Next, the allocable tax base is determined by multiplying the unadjusted taxable base or excess profit amount by 25 percent. The resulting aggregate tax figure is then allocated across market jurisdictions using a sourcing rule (e.g., on basis of the number of users creating value for the firm in a market jurisdiction). This step allocates taxable profits to market jurisdictions irrespective of any physical presence in those jurisdictions. The allocated tax base to the jurisdiction will then be taxed in accordance with the rates and scheme in Pillar 2.

The business enterprise paying the tax will be entitled to tax relief via credit or exemption. In this way, Pillar 2 reduces or eliminates instances of double taxation. The pillar also reinforces tax certainty for investors by introducing mechanisms for dispute prevention and resolution.

Figure 1



Pillar 2

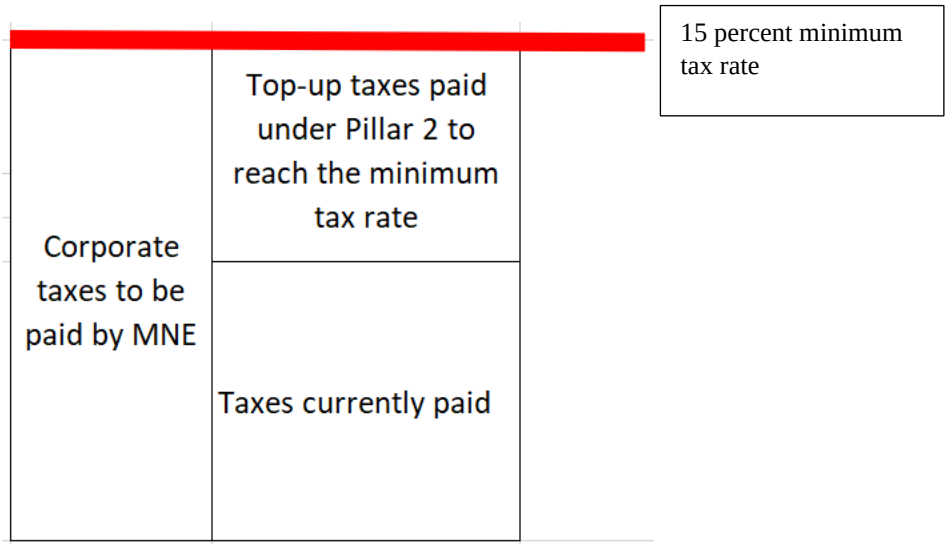
According to Pillar 2 rules, countries would have the right to tax back profit that is currently taxed below a minimum rate. Countries would have the right to apply additional rules to top-up the tax until the effective rate equals the minimum rate. Large multinational enterprises around the world will be subjected to a (global) minimum effective tax rate of 15 percent within each jurisdiction.

Pillar 2 focuses on three rules. The first two are interlocking domestic rules (collectively known as the Global anti-Base Erosion Rules (GloBE) rules). The first GloBE rule is the Income Inclusion Rule (IIR). A minimum effective tax rate of 15% is imposed on the allocable base within each jurisdiction. If the effective tax rate falls under 15 percent, a top-up tax will need to be calculated and paid. The second GloBE rule is the Undertaxed Payment Rule (UTPR), which denies deductions or requires an equivalent adjustment if the income of a constituent entity is not subjected to tax under the IIR – this serves to backstop to the IIR where it is not applicable. Either of the GloBE rules can serve as basis for the top-up tax.

Lastly, a treaty-based rule (the Subject to Tax Rule (STTR)) allows source jurisdictions to impose limited source-based taxation on related party payments subject to tax below a minimum

rate. For instance, STTR allows source jurisdictions to withhold tax on certain types of intragroup payments (e.g., royalties) when such payments are not subject to the minimum tax rate. The STTR will be creditable under the GloBE rules (hence, it is applied first). The tax on US GILTI (global intangible low-taxed income) is assumed to be applicable and will coexist with Pillar 2.

Figure 2



The scheme in Figure 2 above will be applicable jurisdiction by jurisdiction.

Global intangible low-taxed income, called GILTI, is a class of income that is earned abroad by U.S.-controlled foreign corporations (CFCs). GILTI is subject to special treatment under the U.S. tax code. The U.S. tax on GILTI is intended to prevent erosion of the U.S. tax base by discouraging US-based MNEs from shifting their profits on easily moved assets, such as intellectual property (IP) rights, from the U.S. to foreign jurisdictions with tax rates below U.S. rates.

Given this singular minimum rate of 15 percent for each jurisdiction, the explicit goal of Pillar 2 is to disincentivize tax competition of the type that drives cross-country tax rates closer to zero. No tax will be allocated to countries with an effective tax rate below the minimum rate of 15 percent. Hence, this should reduce the propensity by MNEs to shift profits to lower tax jurisdictions. Meanwhile, low tax jurisdictions will be constrained to raise their effective tax rates, lest the tax be collected anyway by jurisdictions higher up the chain of ownership.

The Philippines is currently not a part of the signatory to the OECD Inclusive Framework. But it is urgent that the country at least attempt to reckon or estimate the costs and benefits of being part of it. And also to analyze closely what it means for us:

1) If the Philippines adopts BEPS 2.0, it may not be able to apply its conventional tax incentives under CREATE for certain sectors. It may be constrained to tax some industries that currently benefit from tax breaks but lower taxes collected from other sectors. Hence,

whether BEPS 2.0 is revenue-neutral or far from it is not known. It is not clear whether the objective of BEPS 2.0 is to eliminate all tax incentives. On the other hand, by eliminating some of the inefficiencies associated with the low tax elements of the domestic tax regime and potentially mobilizing revenues from BEPS 2.0, the country can benefit on net basis.

2) Adoption of BEPS 2.0 may also increase compliance costs for firms and the government. Although at this stage, rules can still be simplified.

3) Adoption on multilateral basis of BEPS 2.0 can lead to higher taxes on large, profit-shifting MNEs are increased, and the impact on their behavior is yet unknown. On the other hand, unilateral efforts to tax them can lead to retaliatory action.

4) If the Philippines does not adopt BEPS 2.0, it will continue being unable to tax digital services, revenues and profits generated by large MNEs unless it adopts its own unilateral system of taxation for these.

5) BEPS 2.0 does not seem to cover VAT on transactions, only DST. So, can countries continue to charge indirect taxes on transactions on large MNE digital platforms?

6) Potential equity issues: BEPS 2.0 covers large MNEs, but not smaller digital platforms below the income threshold. These enterprises will continue to be subjected to the rules of the domestic tax system in their respective jurisdictions.

7) The broader picture: BEPS 2.0 only excludes 2 sectors (financial services and extractive sectors). Therefore, it also covers a large variety of sectors other than the digital services. Therefore, not only might BEPS 2.0 affect the relative competitiveness of digital sector in the Philippines, it may affect the broader tax competitiveness of our entire economy. More on this below.

8) Accelerated digitalization, reduction in fiscal space due to the covid crisis and growing public dissatisfaction with tax avoidance are likely to reinforce efforts at imposing unilateral tax measures in the absence of a consensus-based solution.

The scope of covered businesses has moved far from the original intention of highly digitalized business models. Extractives and regulated financial services are exempt, but other industries are generally in scope. The IF statement provided much certainty with respect to Pillar One, but many details remain outstanding. The expectation is that the rules will be finalized in 2022 and take effect beginning in 2023.

The prospect of a multilateral effort to impose a minimum tax on a broad set of industries (not just in digital services) in BEPS 2.0 Pillar 2 means that countries that rely on low tax strategies to attract investment face the prospect of having the extra profits created in their jurisdictions clawed back in BEPS 2.0 minimum taxes imposed by other jurisdictions at higher levels (typically at the ultimate parent company level) (KPMG, 2021).

Hence, if a taxpayer benefits from tax incentives which result in an effective tax rate (ETR) below 15 percent, then the efficacy of the tax incentive is neutralized because another jurisdiction is bound to apply a top up tax at the group level to comply with BEPS 2.0 Pillar 2.

The lower is the effective tax rate created by the low-tax jurisdiction, the greater may be the tax claw back in another jurisdiction upstream. Hence, BEPS 2.0 is expected to counteract the most generous of tax incentives - the imposition of tax holidays and other tax exemptions in special economic zones. Enhanced deductions and tax credits for certain qualifying activities, on the other hand, may be treated as added income, so these may not necessarily pull the effective tax rate down.

III. Unilateral Efforts to Tax Digital Services and the Underlying Economics of These Taxes

The previous section discussed multilateral efforts to tax large MNEs. The next sections discuss the following: (a) efforts to rationalize DST; (b) theories behind analyzing the incidence of digital taxation (c) efforts to more cleanly classify activities in digital space, which accompanies efforts to impose digital service taxes, or DSTs; and (d) the proposed DST in the Philippines and efforts in other parts of Asia.

There is a nascent literature discussing the economic rationale behind DST. Several authors have analyzed the correspondence between taxation of digital services, which are mostly (if not all) intangible, and the taxation of tangible goods and services. The literature acknowledges the profound differences among them and the potential difficulties in applying conventional tax principles to digital services. The biggest challenges to DST are the following:

1) The definition of a permanent establishment, for purposes of all kinds of taxation, as
2) The establishment of the jurisdiction where consumption takes place
3) Identifying the proper payment channels

These 3 issues will be addressed later in the paper. Identifying the basis for imposing DST across countries has also been an issue. Wei Cui (2019) noted that independent of multilateral moves to tax digital services, countries have been imposing DST on these services on their own. By imposing DST on their own, countries are explicitly allocating/appropriating taxing rights on these services to themselves. Is there a rationale for these moves by countries?

Wei Cui argues that digital platforms earn Location-Specific Rents (LSR) under circumstances similar to those that arise when mining natural resources. He contends that this confers the right of the country in which users of the platform are located to tax these digital platform corporations. In economics, rent is any payment in return for action that exceeds the amount required for that action to be undertaken. Economic rent can be thought of as ‘unearned income’. This is defined as any return earned from producing a good or service that exceed the costs required to produce it.

Cui argues that digital platforms, akin to extractive industries generate economic rents which are location-specific (i.e., are tied to some resource that is specific to a market jurisdiction and therefore has immobile qualities). Hence, there is a strong economic argument for taxing them. Economic rents from these digital platforms arise from their monopoly power in specific applications. These platforms have, after initial investment, reached a point where their marginal costs equal zero in production (they have achieved scale efficiencies).

In situations where capital is immobile, taxing economic rents is non-distortionary. However, when capital is mobile across market jurisdictions, taxing economic rents can distort location decisions EXCEPT when these decisions involve location-specific factors.

Cui motivates his analysis of LSR by appealing to recent economic models of digital platforms, which are modeled as two-sided markets/platforms. In a two-sided market model, a platform provides a venue for two sets of interdependent customers to interact or find each other. The platform can charge a price to each set of potential users for providing this service. Since the two sets of customers are interdependent on each other in some way, the number of users on both sides is important for the success of the platform: e.g., the product or service provided by the platform is consumed jointly by two sets customers. Therefore, each type of customer values the service more if the other type of customer also buys the service. Users on both sides benefit from externalities facilitated by the platform. Platform businesses facilitate matchmaking and interaction across the two sets of customers. The greater the number of customers they have on the two sides, the more likely transactions will be concluded, and the more the profits they realize. Two-sided markets are typical of the internet economy.

Customers (in any of the two sets) across multiple jurisdictions are essentially immobile since the digital platform can access them and provide services through broadband internet at close to or at zero marginal cost. Since the interaction between the two sets of customers bring them mutual benefit, it makes sense for the platform provider to seek large numbers of users on both sides. This is also beneficial to the platform, since its marginal costs get closer to zero as more users join in.

Since two-sided markets in digital services exploit network and scale economies to achieve efficiency in the service of matchmaking and many of the largest digital service providers have grown their user bases to very large numbers, extending across multiple market jurisdictions, Cui argues that they earn LSR and may be taxed jurisdiction by jurisdiction on this basis. **Similar to extractive taxes, if taxing rights are assigned to the jurisdiction of an immobile, location-specific factor - users - the tax on economic rent provides no incentive for relocation by any of the parties involved. Platforms rely on broadband services to reach users. Hence, users – the "factor" involved in value creation for platforms - do not have an incentive to be mobile. Neither does the platform developer have to be physically mobile to extract LSR. Many real-world platforms conform to this stylized model. The two sets of customers in the two-market model may consist of (not exhaustive) users and advertisers, users and other users, consumer-producers and other consumer-producers.**

In addition to the LSR arguments for taxation, large cross-border digital platforms have natural monopoly like features, which also allow them to earn rents. While they can have very

high development costs, but once running in digital space, the marginal costs of operation are close to zero.

Cui and Hashimzade (2021) argue that the following attributes of digital markets make them very different from the conventional markets for extractive LSR:

a) technologies enable digital platforms to earn LSR remotely, which arise (only) because of the active participation of platform users in these remote locations.

b) The tax base is decoupled from the stream of payments. Many digital platforms provide free access to users in exchange for their personal data and this enables value creation for other users in the other side of the market and for the platform itself. The fact that the user-enablers of LSR reside in jurisdictions remote from the digital service provider is the rationale for these jurisdictions to levy the DST.

c) Even if the digital service provider is mobile, its intermediate input in monetization, users, are not.

In this way, Cui and Hashimzade provide another approach to allocating sovereign taxing power. One based on LSR.

In their model, Cui and Hashimzade (2021) show that when marginal cost is non-zero, the incidence of a tax on platform revenue falls on the platform and the advertisers/producers. However, the effect on consumers is ambiguous.

The authors also reckon that countries may be willing to trade-off tax/cost passthrough to domestic users as a reasonable price to pay for capturing some of the platform rent. However, incidence effects are complex in two-sided markets. This issue is addressed further in the next section.

IV. Incidence of Taxes in Electronic Platforms

Discussion of incidence of digital taxation will be first motivated by a discussion of two-sided markets or platforms. Two-sided digital platforms are called such because they serve as electronic venues for matching and connecting two groups of customers (typically consumers and sellers). The market is two-sided in the sense that the digital platform facilitates mutual search, discovery and matching of consumers and sellers through advertising and enabling of exchange and payments.

Evans (2003) defines a two-sided market platform as one where there are: (a) two distinct groups of customers; (b) positive network externalities (from at least one of the groups to the other), and (c) an intermediary that internalizes the externalities between the groups. In the digital platform case, the intermediary is the digital platform.

Two-sided digital platforms maximize their profits by facilitating value creation through the exploitation of mutually-reinforcing externalities between these groups. The digital platform

typically prices its value-creation services in consideration of both types of customers and the externalities generated among themselves when they interact in the platform.

For instance, users of a particular digital platform can be charged a subscription fee, but joining the platform can give them access to a growing number of sellers who of goods and services. The sellers themselves advertise on the digital platform and are charged for it (usually on a per click basis, or when a match between them and a buyer is consummated on the digital platform). Advertising can be a nuisance to users on a digital platform (a negative externality) or perceived as a benefit (a positive externality) by users. Meanwhile advertisers benefit from an increase in users of the digital platform (a positive externality).

Much of the literature on the incidence of digital service taxes focus on the DST. The VAT is usually assumed to be levied. Hence, there can also be interactions between the two taxes. Where DST is introduced, the discussion often focuses on whether it should be in ad valorem or specific per unit tax.

In Kind, Koethenbuerger and Schjlelderup (KKS, 2006, 2008, 2010a, 2010b), the authors explore the consequence of levying ad valorem or unit taxes on various tax bases associated with monopoly 2-sided firm market platforms. As discussed above, network effects and demand complementarities alter the results from traditional one-sided markets. They show how an increase in ad valorem tax on one side of the market may result in overproduction (compared to the social optimum), with an increase in output on both sides of the market. They show that ad valorem taxes do not necessarily dominate unit taxes as they do in a standard environment in terms of tax revenues or welfare.

If there are positive spillovers across groups in a 2-sided market, both goods will be underprovided in a competitive market. In contrast, a monopoly platform may overproduce both goods. Hence, if both sides of the market can be taxed, ad valorem and unit taxes can be used to achieve the social optimum. However, a firm always reduces output of a good which is subject to an increased unit tax. This is the only way the firm can reduce its tax burden.

In KKS, a higher VAT on one good reduces the end-user price of that good and increases sales on both sides of the market. This happens if the value for the platform of attracting an extra user exceeds the marginal cost of serving the extra user. Hence, unlike a firm operating in a one-sided market, a two-sided platform firm can reduce its tax burden by shifting revenue to the side of the market where the tax rate is unchanged. This action is profitable for the platform if the marginal costs of the more heavily taxed good are smaller than the size of the indirect network effect from the other side of the market.

Hence, it may be profitable for the platform to charge a lower price for the good (say, subscriptions) before a tax is levied. This increases the number of users, allowing the media platform to sell more of good on the other side of the market, say advertising, and make a higher profit (than if it increased the price and reduced the output of subscriptions).

In general, the KKS results demonstrate that consumers of the more heavily taxed good will buy more of the good at a lower price. Thus, in a two-sided market, an increase in an ad

valorem tax may, under certain conditions, lead to lower prices for both goods as well as to higher sales. In this way, a unit tax is better able to reduce output closer to optimal level.

Anderson and Jullien (2016) and Shi (2018) build on the KKS approach with model of monopoly 2-sided platform. In their work, a rise in ad valorem tax on advertising lowers the number of ads. It also leads to increases in subscription prices. Hence, subscription levels fall with an increase in the tax on ads. Platform profit also falls. Overall, welfare in society falls as the surpluses of consumers and advertisers fall. Shi explores extensions of the baseline monopoly 2-sided platform case to the case of pure ad-finance (2-sided platform which is free to consumers). In the case of consumers not liking ads, they have: an increase in the ad valorem tax on ads reducing the number of ads and raises the price of ads. Hence, subscription level also rises with the tax. The impact on advertiser welfare is unclear.

Bourreau, Caillaud and De Nijs (2016, BCD) also adopt the 2-sided monopoly platform. However, similar to Cui and Hashimzade (2019), they consider the role played by users' personal data as a potential tax base. Data collection increases the quality of platform service to users and the value to advertisers. Their model suggests that ad valorem taxes may dominate other taxes in terms of tax revenues because they can mitigate the tax base interdependence effect. They consider ad valorem taxes on advertising revenues, user subscriptions and taxes imposed on personal data collected by platform on users (assumed to be paid by the platform). The analysis pf BCD shows that a small tax on data collection may reduce the volume of sales and hence lower indirect tax revenues. It may also lead platforms to switch business models and start collecting subscription fees from users. In BCD, an ad valorem tax on advertising revenues is superior to a specific tax on data. The specific tax on users' personal data does not increase tax revenues is VAT rate is too high. Taxes on data collection may reduce the volume of sales and hence lower indirect tax revenues.

In their 2017 and 2020 papers on digital taxation prepared for the IMF, Aslam and Shah suggest that given the still nascent research in the area, the efficiency effects of digital services taxes are still not clear cut. DST is likely to be passed onto the price of taxed services and it can also become a source pf production inefficiency. On the other hand, (1) If the marginal cost of providing the taxed service is low, then the digital services tax acts like a tax on the firm's quasi-rents - rents that are exclusive of costs sunk in establishing the business. The main impact may of the DST may not be on current pricing but on future investment; (2) The user participation test means that the DST applies within two-sided market paradigms. While the potential revenue from digital services taxes is significant, their efficiency effects remain unclear.

The work by BCD in 2016 and Shi (2018) furthers the analysis of taxation of two-sided monopolistic platforms. Since their baseline model includes a value-added tax (VAT) imposed on various transactions in the model, it seems like a good basis to start to analyze the proposed digital tax bill in the Philippines (House Bill 7425). In the model by BCD, VAT can be imposed on sales by sellers of goods and services on digital platforms and subscription fees charged by digital platforms on users (who can either be prospective consumers or sellers on these platforms). BCD then explore the consequences of further imposing ad valorem and other taxes on the use by the platform of personal data extracted from users.

One of the key variables in the BCD model is one reflecting the quantity of personal data willingly disclosed by users to the platform. The maximum value of this variable is determined by the marginal utility of privacy and the net surplus received by users, a function of the unit price charged by the platform to sellers for each click, which represents a match between consumer/buyer and seller on the platform. A slight tweaking of the expression for the quantity of personal data willingly disclosed by platform users can make it sensitive to the levying of a VAT on subscription fees. The quantity of personal data disclosed plays a role in increasing: the quality of the digital platform service; the probability that advertising will hit targeted users; the marginal disutility of disclosures; and the operating costs of the digital platform. It is reasonable to think that VAT imposed on the price of subscription will negatively affect the quantity of personal data willingly disclosed by platform users.

The current proposed legal model of digital taxation in the Philippines starts imposing VAT on goods and services sold on online marketplace platforms and on services sold by the platform itself to users and advertisers. By imposing VAT on goods and services sold online, the Philippines corrects the current asymmetric VAT treatment between goods and services sold online and those sold in conventional brick and mortar settings. This asymmetry should be corrected on equity grounds and to reduce leakages from the VAT system.

The Philippines proposed law, House Bill 7452, does not go beyond imposing VAT on services associated with the platform. **Thus, it should be clear that the Philippines is not yet at the point where it levies digital service taxes (DSTs).** Hence, a basic version of the BCD model could be applicable in the Philippines case. Other versions of the basic model are discussed by Shi (2018) and Anderson and Jullien (2016). Shi (2018) has a very good discussion of the state of research in the area of digital taxation and a summary of the consequences of taxation. **Notwithstanding all this, it still seems like these models might be applicable but on a limited sense. The reasons are that the Philippines is but one among many countries in the world that do businesses with large cross-border digital platforms and marketplaces. Hence, there is no guarantee that the latter will respond in the particular profit-maximizing manner indicated by the models if the Philippines legislates digital taxes. Furthermore, the models still do not account for the possibility of more general equilibrium effects in the domestic nondigital space. Models of tax incidence in digital space still do not account for possible interactions between digital and conventional tax space (e.g., in response to digital taxes (VAT or DST), taxed parties may also shift activities from digital to non-digital space). If prices of ads or goods or services increase because of a tax, some advertisers may revert back to traditional channels of advertising and purchases.**

Morever, since many digital markets are two-sided, one should be aware of the following interactions and effects when VAT is imposed. A VAT on user subscriptions to a digital platform may reduce the number of subscribers to a platform will lower subscriber volume in the BCD model and hence reduce data disclosed. Reduction in platform subscribers may also reduce the number of ads sold by the platform since ad revenues are realized per user click.

Apart from the negative effect on ads of a VAT-induced reduction in subscribers, a VAT on advertisements may also reduce the number of ads sold by the platform. The reduction in platform ad sales reduces VAT collections.

Note that introducing a VAT on one end of a two-sided digital market will have possible direct and indirect effects on the other side of the market. On the other hand, it may also be optimal for digital platforms to respond to digital VAT by changing its price and fee structure (on ads and on users).

Hence, a more general equilibrium analysis of tax incidence is required (both for the VAT and DST). It therefore follows that the outcomes of current theoretical papers must still be viewed with caution as the development of models in the literature is in its nascent stages.

With all these in mind, we can now envision in a qualified way how 2-sided digital markets would react to a VAT imposed on digital transactions. Where none was imposed before (as in the case of the Philippines), a VAT simultaneously imposed on subscriptions by users and sales of ads and sellers on the platform now may have the following effects via the model of BCD. Given the theories discussed above, the following effects cannot be ruled out in the application of a VAT on digital services in the Philippines.

1) It can reduce user participation and also the quantity of personal data disclosed by users to the platform and likely the number of users as well;
2) It can reduce the value of personalized services delivered by the platform to consumers;
3) It can reduce sales and the expected profits of sellers on the platform;
4) It can reduce the profits of the digital platform;
5) It can reduce the quality of the digital platform service;
6) It can reduce the probability that advertising on the platform will hit targeted users (since less personal information will be made available as the cost of subscription rises);
7) *It can reduce the marginal disutility of disclosures (since people disclose less information);*
8) *It can reduce the operating costs of the digital platform; and*
9) *It can reduce tax expenditures and revenue leakages on VAT.*
10) *It can also induce consumers/users/sellers to shift back to advertising on conventional platforms and buying from conventional markets.*

Note the interrelationships between the effects above. Effects (1) to (6) work to reduce the tax base for the VAT, but (8), (9) and even (10) work to raise it. Also note that the quantity of personal data disclosed by the user to the platform will also be sensitive to (a negative function of) the rate of VAT imposed on the subscription fee. Notwithstanding (1) to (6) above, it is highly likely that significantly positive VAT revenues will be collected because of the sheer number of users/consumers and sellers of the most well-known platforms and given how ingrained use of social media platforms are in the Philippines. It is also likely that the supply of personal data by most users to platforms is expected to be relatively insensitive to the VAT, so that value creation will likely continue unabated even after VAT is imposed. **Furthermore, the generation of new VAT on revenues from the platform may be sufficiently strong reason for a country to pass**

HB 7425. Apart from that, there are also strong equity reasons for levying a VAT on digital transactions.[2]

If, in addition to VAT, the Philippines starts levying DST on digital transactions, then following effects may occur. The digital platform could increase the price of subscription to the platform and the price of advertising. Hence, the number of ads on and subscriber levels to the platform decline. Consumer and advertiser surplus decline. Profit of the digital platform also declines. Social surplus declines. Hence, a tax on ads hurts all parties and society as a whole. Although ads decline, prices rise for consumers. The monopolist platform internalizes some of the externalities and a tax reduces its incentive to engage more consumers.

V. Classifying activities and monetization strategies in digital space, which accompanies efforts to impose digital service taxes, or DSTs and VAT

A logical preparatory exercise to taxing digital services is to classify strategies and schemes for monetization. Some of the recent literature has been very helpful in identifying and classifying the various business models and monetization strategies employed by digital platforms. Identification of these is an important step towards applying taxes on digital service transactions and on the platforms themselves.

In their recent book, Lucas-Mas and Junquera-Varela (2021) focus on what they deem as. "tax-disruptive digital business models". In the tax-disruptive business model, digital platforms

a) Distribute/sell digital content online/via the internet;
b) Grant online access to users of digital content;
c) That are multisided in nature (multisided digital platforms) grant online access to users of digital content and connect these users to one another.

In each of the cases above, the access to digital services is made accessible through payment to the digital service provider or platform of a final price or fee. Tax-disruptive business models are extremely flexible and can involve rich variations in the modalities above based on the nature of transactions, number of and geo-location of users and counterparties, approach to monetization, type of digital content, payment, and distribution scheme.

The authors consider these models tax-disruptive because technological advances in broadband capacity and speeds, data compression and transfer, user verification, security and customization ability allow digital service providers to enhance and improve modes of communication, content development, distribution, automation, counterparty risk-sharing and payments over traditional business models.

Furthermore, the structure of many of these digital businesses allow for their own users to create and enhance the value of digital services production through favorable network effects as

[2] In India, the Equalization Levy, an ad valorem tax based on annual value of digital transactions, was imposed in 2016 on equity grounds, as nonresident digital advertising platforms weren't being taxed on income, but resident digital advertising platforms were.

increased user participation can generate positive externalities for other users and enhance the value of the business. The reliance on users for new or additional value creation imply that these businesses thrive on capturing the benefits of scale economies, agglomeration, and network effects. Because of this, the number and nature of users can be a significant determinant of monetization strategies.

The technological improvements and enhanced capabilities of digital businesses allow them to eliminate, alter and/or modify elements of traditional business models that are the basis for conventional taxation. Hence, they also complicate tax administration and enforcement. The frictions between new digital business paradigms and traditional taxation have become, in addition to the need to tap new revenue sources, important drivers of global efforts to legislate digital service taxes (DST's) to upgrade tax laws to allow them to adapt to new realities.

Lucas-Mas and Junquera-Varela (2021) have attempted developed a fairly neat taxonomy of tax-disruptive digital business models. According to the authors, the following are the most common user-centered monetization strategies:

a) Sale of users' demographic data (race, gender, economic status, level of education, family status, income level, employment)
b) Sale of users' behavioral data (values, personality, attitudes, opinions, lifestyles, interests)
c) Sale of users' activity data (browser history, purchase history, recent activity)
d) Sale of user-targeted advertising (based on user traits and preferences)
e) Sale of user-created content (blogs, reviews, opinions, databases, media file sharing)
f) Appropriation of user-developed intangibles (video games' fan-made content, collective translations, server emulators)
g) Sale of the digital business (exit) after its value has been enhanced by the contributions of users in exchange for free-of-charge access to digital content and digital platforms

Table 1 shows the identified tax-disruptive digital business models, rationales for taxation by their primary motives (market-seeking or resource-seeking or other) and their proposed treatment in Philippine legislation. The table in the Appendix lists specific examples of platforms per type. The middle column in Table 1 discusses the economic rationale for taxing such models. This includes the generation of location specific rent (LSR) (which suggests that the tax base is relatively immobile and that the motive to supply the service digitally in specific jurisdictions leads to LSR). In addition, a market-seeking motive may also strengthen the argument for taxation – the motive to supply the service in various markets is the primary motive for developing the for-profit digital service.

Table 1: Digital business models and how they can be taxed

Class	**Economic rationale for taxation**	**Possible taxes in the Philippines**
Sale of nonuser digital content	Market- and resource-seeking (taxation of location-specific rent)	VAT, DST

Licensing of nonuser digital content	Market- and resource-seeking (taxation of location-specific rent)	VAT, DST
Subscription to nonuser digital content	Market- and resource-seeking (taxation of location-specific rent)	VAT, DST
Virtual banking	Market-seeking	Corporate income tax (CIT); not covered by proposed legislation in the Philippines
Virtual insurance	Market-seeking	CIT; not covered by proposed legislation in the Philippines
Online gambling	Market-seeking	CIT; not covered by proposed legislation in the Philippines
Sale of user-related data and digital content	Market- and resource-seeking (taxation of location-specific rent)	VAT, DST. User data is not covered by proposed legislation in the Philippines
Online user-targeted advertising	Market- and resource-seeking (taxation of location-specific rent)	VAT, DST
Sale of user-related goodwill	Market- and resource-seeking (taxation of location-specific rent)	

Source: Lucas-Mas and Junquera-Varela (2021) and this author

VI. Implementing VAT on digital services and DST in the Philippines and in other countries

Brondolo and Konza (BK, 2021) of the International Monetary Fund (IMF) provide a good summary of current global practices for implementing VAT on digital services and platforms. BK discuss the challenges of applying the destination principle on the VAT to cross-border transactions on digital platforms. The destination principle refers to the collection of the VAT in the jurisdiction where final consumption occurs. Hence, imports into a jurisdiction are taxed via VAT in the same way as domestic supplies while exports are zero-rated with refunds of VAT paid on intermediate inputs used to produce exports.

The intangible nature of digital services complicates the application of the destination principle across borders. This is because customs organizations are usually designed to collect VAT *on tangible physical products as they cross the border*. In the case of digital services, these are intangible in nature so customs cannot observe services crossing virtual space. Moreover, suppliers of digital services that deliver these cross-border do not have a physical presence in the importing country. Hence, the large increase in trade in cross-border digital services has led to concern about increasing VAT leakages in digital space. The intangible nature of digital services also demands that new tax administration paradigms must be developed to address these.

Table 2: How House Bill 7425 compares to criteria for application of VAT

Criteria	Language in House Bill 7425	Issues
Scope of services included	Goods, services, marketing advertising, subscription, user access fees, licensing fees, load for games, add ons and enhancements for games	Does not seem to cover sale of user personal data Includes payment service platforms What about foreign newspapers and periodicals delivered digitally? Economist, Fortune, Time, Bloomberg, etc. physical delivery of these is subject to VAT
Requirement of nonresident operator to register for VAT purposes register, charge and pay VAT in the importing country	**SEC. 105-A. *PERSONS LIABLE IN DIGITAL OR ELECTRONIC TRANSACTIONS*. – THE NONRESIDENT DIGITAL SERVICE PROVIDER IS LIABLE FOR ASSESSING, COLLECTING, AND REMITTING THE VALUE-ADDED TAX ON THE TRANSACTIONS THAT GO THROUGH ITS PLATFORM.**	What about resident digital firms and marketplace platforms?
Requirement for digital marketplaces to register	Same as above	Helps Philippines allocate taxing rights
Will digital marketplaces collect VAT on suppliers who use their platform?	***PERSONS LIABLE IN DIGITAL OR ELECTRONIC TRANSACTIONS*** **– THE NONRESIDENT DIGITAL SERVICE PROVIDER IS LIABLE FOR ASSESSING, COLLECTING, AND REMITTING THE VALUE-ADDED TAX ON THE TRANSACTIONS THAT GO THROUGH ITS PLATFORM.**	Are sellers of supplies on online marketplace platforms VATable on goods or services sold? Operators of online platforms should be responsible for remitting VAT on goods and services sold online and across borders

		But no details yet on how to do this How will resident digital platforms be taxed? Are they currently being treated in accordance with the current tax code and TRAIN and CREATE?
Use of location proxy to establish taxing rights	*Payment proxy.* R*esidence proxy* A*ccess proxy* **FOR THIS PURPOSE, THE TERM 'BUYER' REFERS TO ANY PERSON WHO RESIDES OR CONSUMES TAXABLE DIGITAL SERVICES (FROM A PAYMENT, RESIDENCE OR ACCESS PROXY ADDRESS) IN THE PHILIPPINES FROM A DIGITAL SERVICE PROVIDER EITHER FOR PERSONAL CONSUMPTION, OR FOR TRADE OR BUSINESS PURPOSES. THE TERM "DIGITAL SERVICE" REFERS TO ANY SERVICE THAT IS DELIVERED OR SUBSCRIBED OVER THE INTERNET OR OTHER ELECTRONIC NETWORK AND WHICH CANNOT BE OBTAINED WITHOUT THE USE OF INFORMATION TECHNOLOGY AND WHERE THE DELIVERY OF THE SERVICE MAY BE AUTOMATED.**	No specific proxies mentioned in bill to help establish, define and allocate taxing rights May be useful to mention such proxies in the bill already Based on HB7425, it is possible for foreigners to consume VATable digital services in the Philippines
Input taxes on nonresident digital service providers shall not be creditable against VAT payments	Sec 110 "**NOTWITHSTANDING THE FOREGOING, NO CREDITABLE INPUT TAX SHALL BE CLAIMED BY NONRESIDENT DIGITAL SERVICE PROVIDERS.**	
Threshold for registration	**ANY NONRESIDENT DIGITAL SERVICE PROVIDER WHO, IN**	Is P 3 million the appropriate threshold?

	THE COURSE OF TRADE OR BUSINESS, ENGAGES IN THE SALE OR EXCHANGE OF DIGITAL SERVICES DEFINED UNDER THIS ACT, SHALL BE LIABLE TO REGISTER FOR VALUE-ADDED TAX IF: "**(A) THE GROSS SALES OR RECEIPTS OF SUCH DIGITAL SERVICE BUSINESS FOR THE PAST TWELVE (12) MONTHS BEFORE THE DATE OF FILING OF VAT RETURN, OTHER THAN THOSE THAT ARE EXEMPT UNDER SECTION 109(A) TO (BB), HAVE EXCEEDED THREE MILLION PESOS (P3,000,000); OR** "**(B) THERE ARE REASONABLE GROUNDS TO BELIEVE THAT THE GROSS SALES OR RECEIPTS OF THE DIGITAL SERVICE BUSINESS FOR THE NEXT TWELVE (12) MONTHS FROM THE DATE OF FILING OF VAT RETURN, OTHER THAN THOSE THAT ARE EXEMPT UNDER SECTION 109(A) TO (BB), WILL EXCEED THREE MILLION PESOS (P3,000,000);**	
Reporting and compliance requirements	Sec 113 "**(D) NOTWITHSTANDING SUBSECTION (A), A VAT-REGISTERED NONRESIDENT DIGITAL SERVICE PROVIDER MAY ISSUE AN ELECTRONIC INVOICE OR RECEIPT, SUBJECT TO THE RULES AND REGULATIONS TO BE**	

	PRESCRIBED BY THE SECRETARY OF FINANCE UPON THE RECOMMENDATION OF THE COMMISSIONER OF INTERNAL REVENUE.	
Collection and remitting to tax authorities	Sec 114	Not clear from law how payment to BIR of VAT collections will be made by registered platforms

Source: House Bill 7425 and this author

Under a typical destination-based VAT applied to tangible goods, VAT charging, collecting and remitting agents are resident in the importing country - either customs at the border or VAT-registered domestic sellers of imported final consumption goods. On the other hand, according to BK, nonresident digital platforms are being required to register to have a physical presence in foreign countries (that imports digital services), to charge and remit VAT on their sales of services to the country where consumers are located.

The administrative system that has emerged out of these efforts in digital space is referred to as the vendor collection method. The usual application of this method requires countries to first define the scope of their digital VAT regime; develop modes to allow nonresident businesses to register, charge and pay VAT in the importing country; and develop compliance mechanisms. A country may start with applying VAT to digital services, then later on expand the scope of VAT to include all cross-border exchange of nondigital, intangible services.

The general approach also includes allocating tax rights over remotely-delivered digital and other services, to countries where the final consumer has his or her usual residence. The taxing rights are typically allocated by nonresident suppliers on the basis of a presumption that purchasers who do not provide VAT registration information are final consumers **in jurisdictions identified by their proxies for their addresses.** Penalties can apply to purchasers who misrepresent their VAT status in order to avoid the tax.

According to BK, nonresident suppliers can use payment, residence, and access *proxies* to determine the consumer's usual country of residence and apply that country's VAT to the transaction. Several countries' laws require that two pieces of non-contradictory evidence be obtained by the supplier to establish jurisdiction of residence. Other countries require the supplier to act reasonably reckoning jurisdiction.

Proxy-based evidence can help in allocating taxing rights. A possible *payment proxy* could be credit card information or bank account used for payment or location-related information obtained from third party payment intermediaries. A possible *residence proxy* could be the billing or home address supplied in the order. A possible *access proxy* could include the IP address, mobile telephone country code of the SIM card used, location of the purchaser's fixed telephone landline.

The following is a possible application. A Filipino resident visits Singapore and purchases and downloads a movie digitally from overseas Company A, which is registered in Singapore's vendor collection system. The customer's IP address (an access proxy) indicates that he/she belongs in Singapore. However, the customer's billing address (a residence proxy) indicates that he/she belongs in Philippines which matches with credit card information (a payment proxy) provided by the customer. The two pieces of matching information becomes the basis for Company A to conclude that the customer belongs to the Philippines and does not charge Singapore's GST on the sale of the movie. It charges Philippine VAT on the sale of the movie and remits this to the Philippines. Note that this represents a special application of the destination principle. Correct application of the proxies may be verified during an audit.

Registration

Under the typical vendor system, nonresident businesses will be required to register in countries where the value of digital services they supply to final consumers exceed or are expected to exceed a prescribed amount or threshold within a 12-month period. This is often the threshold for domestic VAT registration. In the Philippines, the threshold is 3 million pesos.

Digital marketplaces are also now commonly required by countries to register and collect VAT both for their own supplies and those of other suppliers who make their sales through their digital marketplace platform. In the economic models discussed above, the **digital marketplaces** are examples of two-sided platforms. Requiring the **digital marketplaces to register increases efficiency and effectiveness of the vendor collection regime. The marketplaces may also be** required to account for and collect VAT for their underlying suppliers. Digital marketplaces may sum up their own sales of services and those of underlying suppliers to reckon their VAT obligations. Hence, the marketplace becomes the de facto supplier acting on behalf of the other suppliers using it as a platform for selling goods and services. Thus, it is accountable for VAT on all supplies transacted through their platform.

The vendor collection method typically provides simplified registration procedures and information requirements for non-resident businesses. To simplify VAT procedures in digital space, non-resident businesses are typically not allowed to claim input tax credits on their supplies purchased in the importing country. However, they are allowed to charge and remit the VAT payable on its supplies (sales) of imported digital services into that country.

The VAT filing procedures for non-resident suppliers of cross-border services should be simplified to minimize administrative and compliance costs. Filing frequency is commonly on a quarterly basis, though it can also be monthly, particularly for larger taxpayers. **The time at which the non-resident supplier becomes liable for VAT is typically based on accrual accounting principles.** In most cases, liability for VAT arises at the earliest of either the time the payment for the supply is received or an invoice is issued. **Payment of VAT is due at the same time as the simplified VAT return and made as easy as possible by allowing a range of commercial payment options.**

BK also point out that certain countries adopting the vendor collection model now require certain **nonresident businesses to charge VAT on their supplies of low-value imported goods**

to final consumers and remit their collections to the importing country. This also helps facilitate release of goods from customs. The VCM therefore also aims to achieve more equal tax treatment between domestic retailers (who charge VAT) and nonresident suppliers (who are exempted from charging VAT) on the same low-value goods.

By collecting the tax from suppliers upstream at the point of sale, the vendor collection model provides a cost-effective way of administering VAT on low-value imported goods.

Digital Service Taxes (DST)

Mullins (2022) and Cebreiro-Gómez, Clavey, Estevão, Leigh-Pemberton and Stewart (2021) **provide good summaries of digital taxes, including VAT and DSTs in the Asian region and other parts of the world. Table 3 lists the status of digital taxation in select Asian countries including the Philippines. When compared to Asian and ASEAN counterparts on basis of digital tax laws and other indicators of capacity to tax digital space, one may conclude Philippines has a relatively less developed system for digital taxes. However, many of the Asian regimes are also relatively new. The Philippines is one of the few countries in Asia still without a VAT on foreign suppliers of digital goods and services.** Table 4 lists DSTs in select Asian countries similar to the Philippines. Based on the information on Tables 3 and 4, it should be clear that the Philippines does not have developed rules for imposing VAT digitally and has no framework for imposing DST as well. India was the first country to impose a DST on nonresident digital services. This was called the equalization levy, which was introduced in India in 2016 at a rate of 6% on advertising revenues. The levy was expanded in 2020 to cover e-commerce but at a tax rate of 2%.

Mullins also points out that an important step in enhancing capacity to tax digitally is in legislating the definition of permanent establishment (PE) to account for cases where firms have no physical presence, but are present digitally in a country. Among countries similar to the Philippines in structure and income, Indonesia and India currently have these defined in their laws. Indonesia has expanded its domestic PE definitions (nexus rules) to cover "virtual PEs". This means that foreign e-commerce providers will potentially be subject to Indonesian corporate income taxes.

Table 3: Status of digital taxation in select Asian countries

	Member of Inclusive Framework (IF)	**Digital PE**	**Discrete Digital Tax (DST or WHT)**	**Cross-Border VAT**
Indonesia	x	x	x	x
Malaysia	x		x	x
Philippines				P
Singapore	x			X

Thailand	x		x	X
Vietnam	x		x	X
India	x	x	x	

Source: Mullins (2022)

Notes: DST = digital services tax, IF = Inclusive Framework, NA = not applicable, P = proposed, PE = permanent establishment, VAT = value-added tax, WHT = withholding tax.

Given that the Philippines is at this point exploring the upgrade of its VAT regime for digital transactions, it might also be a good time to evaluate the merits of introducing DST for other aspects of digital transactions. Expanding and enhancing the scope of taxation to cover these are justified on the basis of various practical, theoretical and revenue grounds. Along the way, however, the country must be aware of the implications of efforts being undertaken in other parts of the world and also incremental progress in economic research regarding the effects of such taxes.

Table 4: Select DST in Asian region

Country	Status and date	Type	Rate	Scope	Threshold	Payment obligation
India	Implemented April 2020	EL	2	Revenues received by nonresidents for online provision or facilitation of sales of goods and services to the Indian market, advertising targeted at Indian users, and sale of data collected from Indian users	Companies generating India-based digital services revenue > INR 20 million in a financial year	Paid by nonresident e-commerce operators.
India	Implemented March 2016	EL	6	Revenues received by nonresidents for online advertising services supplied to Indian residents	Aggregate payments to nonresident > INR 100,000 in a financial year	Charged and withheld by resident payors
Malaysia	Implemented May 2019	WHT	6	All income from e-commerce transactions deemed to be derived in Malaysia	Companies generating revenue from consumers in Malaysia >500,000 RMB/ year	Paid by nonresident digital service providers
Indonesia	Primary Law Enacted March 2020	ETT	Not Specified	Revenue received by nonresidents from e-commerce sales to Indonesian consumers, when the digital PE cannot be applied due to the provision of a tax treaty	The digital PE conditions will be met by exceeding thresholds for (i) group consolidated gross turnover; (ii) sales in Indonesia; and (iii) active digital media users in Indonesia	Paid by nonresident digital service providers

Note: DST = Digital Services Tax, EL = Equalization Levy, ETT = Electronic Transactions Tax, WHT = withholding tax
Source: Mullins (2022)

VII. Conclusion

The Philippines is currently working on a law to impose VAT on digital services. It is one of the few countries in Asia within its income class that does not a have such a VAT framework so it is overdue in this respect. Hence, there are justifiable equity, efficiency, and revenue considerations for moving forward on this activity. VAT on digital services may only be part of the story. The Philippines also has the option to impose DST on digital transactions, independently of the VAT. Rationales exist as well for proposing other digital service taxes (DSTs), especially on revenue streams of large nonresident digital platforms. To do this, the country must update its tax laws further to account for the peculiarities of digital businesses. Enhancements may be made to laws covering all digital businesses (resident and nonresident). This includes refining permanent establishment and nexus rules (as emphasized in DST laws in other countries) and also setting up guidelines for isolating the jurisdiction of consumption in digital space.

Work on different aspects of DST is evolving in different parts of the world, on different levels and at different speeds. Countries have gone ahead and legislated their own DSTs, but a multilateral framework is being prepared by the OECD. The multilateral framework is still quite complicated, hence mutual agreement might not be forthcoming immediately. If the multilateral framework on BEPS 2.0 is ratified, there will be implications for tax incentive regimes in other countries. A country that agrees to ratify BEPS 2.0, however, will have to abolish many of its DSTs. This, even if there are strong economic arguments for levying DSTs based on location-specific rents earned by large digital businesses.

Despite recent advances in the analysis of the economic structure of 2-sided markets, which can be applied to digital platforms, the theory of taxation of digital platforms has not come up with solid consensus as yet with respect to the incidence of taxation. Nevertheless, some recent avenues of inquiry look promising and certain behavioral responses of market participants to digital taxation seem plausible. Many of the large digital platforms are 2-sided markets which can capitalize on network externalities created by both sides as well as scale economies and earn location-specific rents. In this case, traditional outcomes of taxation in one-sided market models may not apply. The ability to generate location-specific rents or LSR is also the rationale for taxing them on certain revenue streams.

Despite the advances in theory, however, even newer models do not account for the possible interaction between digital marketplaces and traditional marketplaces of the brick-and-mortar type. Hence, their outcomes are useful for policy guidance, but additional analysis is required to get a more complete view of the effects of VAT or DST.

House Bill 7425 is also compared against emerging VAT and DST practices around the world. Since the bill itself is work in progress, it remains to be seen if the final version will conform closely with global practices. This paper observes some difference between the bill and global VAT practice.

Given that the Philippines is at this point exploring the upgrade of its VAT regime for digital transactions, it might also be a good time to evaluate the merits of introducing DST for other aspects of digital transactions. Expanding and enhancing the scope of taxation to cover these

are justified on the basis of various practical, theoretical and revenue grounds. Along the way, however, the country must be aware of the implications of efforts being undertaken in other parts of the world and also incremental progress in economic research regarding the effects of such taxes. These developments may shed light on our own domestic efforts to tax digital services and may also impact our domestic tax structure.

Given the myriad of topics discussed, the following are open policy questions for resolution for the country:

1) What is the impact of the OECD Inclusive Framework (IF) on our tax structure and incentives? Should the Philippines sign up to it? What are the costs and benefits of doing so?

2) Beyond exploring multilateral efforts at taxing digital space, there is economic rationale (discussed in this paper) for applying digital service taxes (DST, beyond the value-added tax) unilaterally. If the Philippines decides to impose its own DSTs, what tax bases can be considered (e.g., revenue streams, sale of user data, number of domestic users, etc.)? What mix of taxes can be applied and what is the incidence of these taxes? What is the potential revenue to be generated from these? Current economic models of digital taxation can accommodate analysis of specific and ad valorem taxes on select digital tax bases.

3) What is the potential effect of DST on nonresident platforms and digital taxes in general, on nondigital commerce space and the structure of taxes on nondigital commerce?

4) Given that economic modeling of digital space, including taxation of it, is new, how can existing models be updated and enhanced to make them more useful for policymakers?

5) Are tax laws on our resident digital firms appropriate? How will they be affected by DST if legislated?

6) How can Philippine tax law and tax administration be enhanced to be more responsive to the needs of the digital age. This paper and some recent research by multilateral financial institutions provides some guidance on the former. Part of the answer is refining permanent establishment and nexus rules (as emphasized in DST laws in other countries) and also setting up guidelines for isolating the jurisdiction of consumption in digital space. Some suggestions for the latter have been made in this paper.

7) The market for digital services is but a subset of the broader market for the trade in services, the largest sector in the Philippine economy. Is our tax regime for domestic and cross-border trade in services appropriate? What enhancements can be made to tax law and tax administration in this regard?

Much of the advances in digital taxation in the last decade have come in the form of allocating cross-jurisdictional taxing rights. The Philippines must be more active in this area because there are strong economic and practical arguments for doing so. E-commerce is here to stay and has only developed more quickly because of the pandemic.

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Appendix

Classification and Examples of Digital Platform Schemes

	Content Related								
1	Kindle Store	Apple iTunes Store					Apple TV and music		
2	Microsoft	IBM	Cisco	Oracle			**Accenture**		
3	Netflix	Spotify	Amazon Prime				**Disneyplus**	Appleplay	**NBA**
	Regulated Activities								
4	First Direct	ING Direct	Revolut				Virtual banks		
5	ZhongAn	Bowtie Insurance					Virtual insurance companies		
6	Bet365	Bwin	Betfair	888					
	Multisided Platforms								
7	Amazon	Uber	Airbnb	Booking	eBay		**Lazada**		
	Alibaba	Tencent	Expedia	crowdfunding platforms			**Shopee**		
	online poker						**Grab**		
7a	**Gaming portals**						**League of Legends. Etc**		
	User-related								
8	Facebook	Instagram	Twitter				**Tiktok**	**Gaming portals**	**Kumu**
9	Google Ads	Amazon	Linkedln	Alibaba			**Tiktok**		
	YouTube	FB	Reddit						

10	Instagram	Linkedln	WhatsApp						
	Skype	Waze	YouTube	Fitbit	**Viber**				
	Sale of big data								