Chapter 9

Digital Platforms and International Taxation in Asia

Rolando Avendano and Peter Rosenkranz

9.1. Introduction

The rise of the digital economy has fundamentally transformed how many companies conduct their operations, multinational corporations in particular.[1] The heavy reliance on data and information and communication technologies, increasingly mobile business processes, and the central role of digital intermediation platforms has underscored the importance of digitally intensive companies to Asian economies. By providing the infrastructure for digital adoption, technological multinational corporations have outgrown their counterparts in other sectors, gained dominance in their own segments, and become hubs for other sectors in the digital economy.

While gaining dominance, technological multinational corporations have also exacerbated the risks to national tax systems. Technological multinational corporations have enjoyed exceptional growth thanks to their reliance on intangibles, such as know-how and intellectual property, strong liquidity, and spending capacity. They can operate in multiple countries without need for physical presence and are more prone to market concentration. Given their business models and financial profiles, technological multinational corporations may also have more incentives to artificially lower taxable income and exploit corporate tax structures to avoid paying their share of income tax.

1 This chapter was prepared as a background paper for ADB (2021). The authors are grateful to Cyn-Young Park, Go Nagata, Aurore Arcambal, Satoru Yamadera, Bruno da Silva, and Ryan Jacildo for helpful comments and suggestions, and thank Monica Melchor for her excellent research assistance. This study was presented at the virtual ADB-ADBI Conference on Digital Platforms in June 2020. The authors are also thankful to the participants of the seminar for their comments and suggestions.

International efforts to respond to this scenario reflect the need to adapt corporate income tax rules and ensure economic activity and value creation. The Organisation for Economic Co-operation and Development (OECD)/G20 Inclusive Framework on Base Erosion Profit Shifting (BEPS) provided a platform for governments to develop standards and instruments to reduce tax avoidance. Other efforts have since been undertaken to improve the coherence of international tax rules. In October 2021, 136 jurisdictions reached a historical agreement on global tax reform on large multinationals. The agreement ensures that multinationals, regardless of their sector, pay 15% in tax in the countries where they operate. Together with achieving minimum taxation on income, the agreement will considerably reduce the incentives of multinational corporations to shift profits to low-tax jurisdictions and strengthen the transparency and predictability for tax administrations and companies.

Regional and international cooperation will be needed to modernize the international tax framework. As a multilateral solution for an agreement on tax rules is reached, international cooperation will be essential for designing and implementing the reforms in domestic and international tax frameworks. Areas for cooperation include knowledge sharing on tax policy and domestic resource mobilization, improving exchange of information for tax purposes, technical assistance for modernizing tax administrations, and collaboration in the implementation of a global minimum tax solution.

9.2. Trends and Challenges of Digitalization in Taxation and International Tax Cooperation and Impact of COVID-19

The consolidation of digital platforms in Asia has accelerated in recent years. Digital platforms are transforming economic structures and disrupting markets. Regional companies like Alibaba, Tencent, and rapidly expanding examples such as Gojek have successfully created businesses and reinvented market arrangements, creating new business models that generate and capture value. Together with digital platforms, there is a spectrum of intermediary structures within the scope of firms operating in the digital economy, with various implications for the formulation of tax policy.

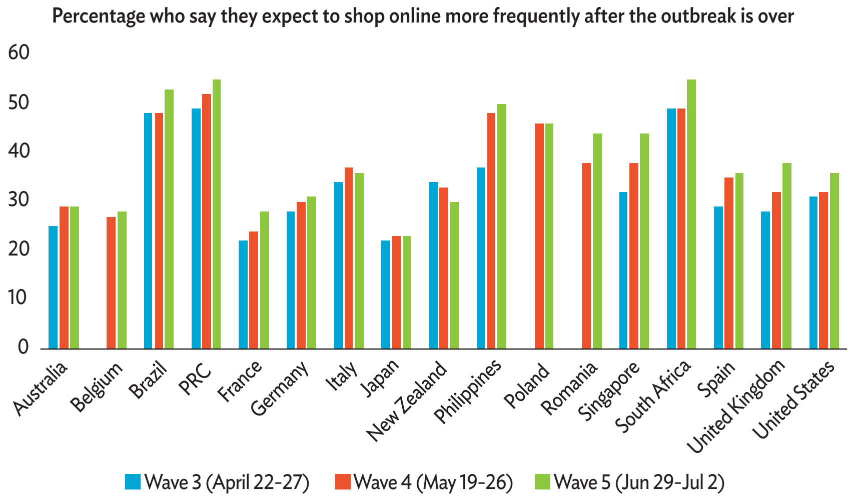
The digital economy presents challenges for the design of international tax systems, given the lower significance of physical presence and uncertainty about adequately accounting for business income. The evolving nature of business processes in the current economic climate has rendered many international tax rules outdated. The digital economy poses three major challenges. First, technological progress and the expanded scope for businesses to operate in an area without a physical presence prompts questions about whether rules centered on physical presence (nexus rules) remain appropriate. Concretely, tax offices in the region do not always have the tools nor the guidelines for revising regulations on permanent establishment status.[2] Second, the extensive use of data and the ability of companies to monetize this raises questions about whether data and the value they generate are appropriately captured for tax purposes. Third, advances in digital products and service delivery have made it more difficult to properly characterize income under newer business models.

As Asian economies rely more on digital products and services, this will bring challenges and opportunities for national tax systems. Most economic sectors are shifting toward a business model dominated by digital functions and capabilities (the "digital asymptote"), underscoring issues for determining economic and physical presence, intangibles, and user-generated value (Aslam and Shah 2020). While a larger share of the digital economy poses numerous challenges, as mentioned above, it can also result in greater traceability and thus more efficient tax systems.

The COVID-19 pandemic has fueled the rise of the digital economy, facilitating widespread adoption and utilization of digital technologies while introducing changes to the corporate landscape. Survey data suggest consumers expect the elevated engagement with digital processes to persist beyond the pandemic. In the People's Republic of China (PRC), over half of respondents have indicated that they will continue to shop more online than before the pandemic (Figure 9.1). Digital payment transactions have also increased sharply in Asia since the COVID-19 outbreak, while tech giants such as Amazon have increased hiring to cope with higher demand. As some

2 A permanent establishment broadly denotes the place in a country at or through which a firm carries out its business activities. The concept of a permanent establishment is important when considering the extent to which profits of a firm based on a jurisdiction can be taxed in another jurisdiction. Tax treaties generally provide that the business profits of a foreign enterprise are taxable in a state only to the extent that the foreign enterprise has in that state a permanent establishment to which the profits are attributable. The definition of permanent establishment is therefore crucial in determining whether a nonresident enterprise must pay income tax in another state (OECD 2018).

Figure 9.1: Trends in E-Commerce Consumer Behavior Post-COVID-19, 2020



PRC = People's Republic of China.
Source: Global Web Index (2020). *Coronavirus Research: July 2020, Multi-Market Research Wave 5*. https://www.globalwebindex.com/.

platforms have consolidated their positions during the pandemic, such as Alibaba, they are facing competition from emerging players, such as start-up Pinduoduo. The pandemic could have long-lasting impact on the corporate landscape. On the other hand, the crisis could increase firm concentration, with multinationals becoming even more dominant. The pandemic has also raised questions about the applicability of existing tax regimes, such as cross-border components of taxing rights under tax treaty rules and rising tax exemptions due to disruptions to firms' daily operations and constraints related to workforce availability.

Empirical assessments of the effect of base erosion practices suggest a negative impact on tax revenues—a dynamic which growing digitalization may have underscored. Jansky and Palansky (2019) find that annual tax revenue losses triggered by profit-shifting activities amount to $125 billion.[3]

[3] This estimate of $125 billion in corporate revenue losses aligns with the lower bound of similar studies by Tørsløv Wier, and Zucman (2018); Cobham and Jansky (2018, 2019); and Clausing (2016).

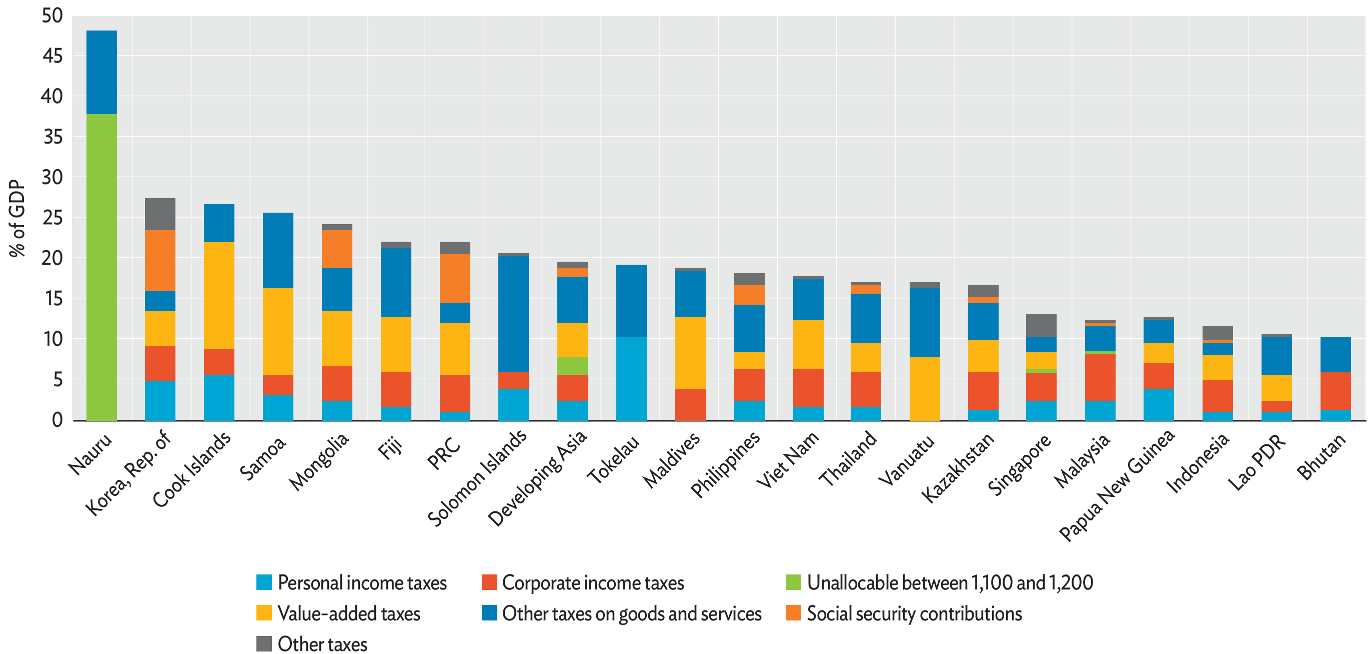
In their analysis of foreign direct investment (FDI) data of 79 countries, they find that low-income and lower middle-income economies experience the greatest losses in corporate tax revenue, both as a proportion of gross domestic product (GDP) and of total tax revenue. Johansson et al. (2017) estimate \$100–\$240 billion in annual revenue losses (or 4% to 10% of global corporate tax revenues). Further, Bradbury, Hanappi, and Moore (2018) find a wide range of losses—from \$80 billion to \$647 billion annually—in their meta-analysis examining efforts to estimate the fiscal impact of FDI-related BEPS. Overall, these exercises suggest that the losses in tax revenue triggered by profit-shifting activities are sizable, with the potential to escalate in line with growing economic digitalization triggered by the pandemic. On the other hand, the OECD two-pillar plan for the reform of international taxation[4] is projected to have a potential annual global net revenue gain of up to \$100 billion, or 4% of global income tax revenues, according to initial forecasts.[5] While effects stemming from Pillar 1 would primarily relate to a reallocation of taxable profits, the impact of Pillar 2 through its proposed global minimum tax would translate to an increase in corporate income tax revenues (OECD 2020a).

Policy makers in the region need to consider how enhanced international taxation can help mobilize domestic tax revenues and address development gaps. With big variation between countries, domestic tax collection in developing Asia remains low relative to the OECD average (Figure 9.2). In 21 Asian economies for which comparable data is available, tax revenues as a share of GDP were lower than the OECD average in 2019 (OECD 2021). Value-added taxes still account for a large share of tax revenues, while statutory corporate income tax rates diverge across countries. The uneven composition highlights the different tax revenue profiles and implications relative to the digital economy. These figures are also a reminder of the importance of broadening the tax base and enhancing tax compliance. Strengthening international tax cooperation to increase domestic tax revenues should be important, both in view of a swift recovery from the pandemic and to meet the long-term objective of achieving the Sustainable Development Goals in Asia and the Pacific.

4 These two complementary pillars consist of Pillar 1 considering the reallocation of taxation rights and Pillar 2 on a global anti-base erosion mechanism. The first seeks to modify the allocation of taxing rights through comprehensive and concurrent review of profit allocation and nexus rules. The second is concerned with remaining BEPS issues and minimum taxation.

5 In addition to accounting for the effects of these reforms, this estimate considers the United States' Global Intangible Low-Taxed Income regime. After excluding this regime, the estimated potential annual net revenue gain would amount to \$80 billion, or 3.2% of global corporate income tax revenues (OECD 2020d).

Figure 9.2: Tax-to-GDP Ratios in Developing Asian Economies, 2019

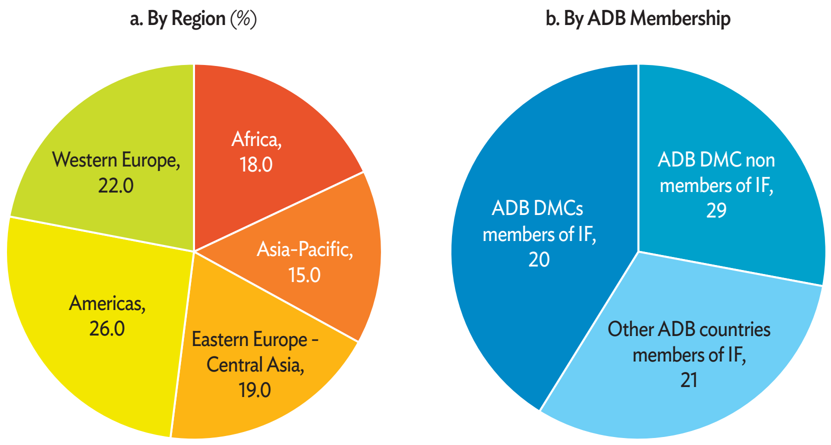


GDP = gross domestic product, PRC = People's Republic of China, Lao PDR = Lao People's Democratic Republic.
Note: The averages for Organisation for Economic Co-operation and Development (OECD) (37 countries) are unweighted. Data for Australia, Japan, the Republic of Korea, New Zealand, and the OECD average are taken from Revenue Statistics 2020 (OECD 2020b). 2018 data are used for Australia, Japan, and the OECD average.
Source: OECD (2021), Revenue Statistics - Asian and Pacific Economies: Comparative tables, OECD Tax Statistics database (accessed September 2021).

9.3. Progress in Regional and Global Initiatives to Address the Tax Challenges of the Digital Economy

Progress is considerable in the Inclusive Framework on BEPS to tackle tax and digitalization issues in recent years.[6] While efforts to reach a multilateral solution to the tax challenges of the digital economy, participation from Asia and the Pacific economies can improve. As of October 2021, 20 Asian Development Bank (ADB) developing member countries (DMCs) had joined the BEPS Inclusive Framework (Figure 9.3). The Inclusive Framework has a commitment from all members to work on (i) nexus and (ii) profit allocation rules that would consider the impacts of digitalization, relating to the principle of aligning profits with economic activities and value creation (OECD 2019a).

Figure 9.3: Regional Composition of the OECD/G20 Inclusive Framework on BEPS



ADB = Asian Development Bank, BEPS = base erosion and profit shifting, DMC = developing member country, G20 = Group of Twenty, IF = OECD/G20 Inclusive Framework on BEPS, OECD = Organisation for Economic Co-operation and Development.
Source: OECD (2021), Addressing the tax challenges arising from digitalization of the economy. July 2021. https://www.oecd.org/tax/beps/brochure-addressing-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-july-2021.pdf.

6 The OECD/G20 Inclusive Framework on BEPS was established to ensure interested countries and jurisdictions, including developing economies, can participate on an equal footing in the development of standards on BEPS-related issues. Besides OECD and G20 countries, the inclusive framework includes international organizations as well as regional tax organizations.

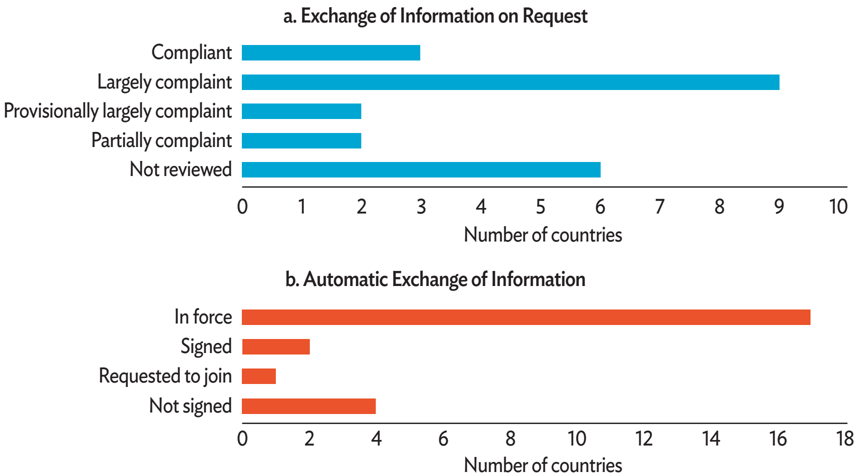
The multilateral agreement approved in 2021 is based on two complementary pillars, one to revisit allocations specified by profit and nexus rules (Pillar One), and another one to consider a global anti-base-erosion mechanism—in particular, a global minimum tax (Pillar Two). Another important area of work refers to the challenges of collecting value-added tax (VAT) on online sales of services and intangibles by foreign vendors, which was addressed in the 2015 BEPS Action 1 and reinforced since. Together with these initiatives, international guidelines are being developed, as presented below, to ensure that digital platforms hold full and sole liability for the assessment, collection, and remittance of VAT/goods and services tax (GST) for sales they facilitate online.

Asia's commitment to automatic exchange of information, an important step to curb tax evasion, has shown some progress. As of October 2021, 27 Asian DMCs have joined the Global Forum on Transparency and Exchange of Information for Tax Purposes. While still an ongoing regional effort, tax authorities are taking steps in adopting strong mechanisms for information exchange. Exchange of information agreements represent an important instrument for tracking and assessing transactions across borders. The peer review process evaluates jurisdictions' compliance with the international standard of transparency and exchange of information on request. Asian developing countries have seen progress in some areas surrounding the exchange of information on request and automatic exchange of information (Figure 9.4). The region has pursued progress in this area, including strengthening tax agreements, double taxation treaties, and other exchange of information mechanisms (Figure 9.5).

In response to calls for a global reporting system for digital platforms, the OECD recently developed model rules for reporting by platform operators. The rules are designed for digital platforms to collect information on the income realized by operators and to report the information to tax authorities (OECD 2020c).[7] The model rules have various objectives: to ensure that tax administrations get timely access on high-quality and relevant information on digital transactions, to promote standardization of reporting rules between jurisdictions and help platforms comply with reporting obligations, to promote international cooperation between tax administrations, and to develop a reporting regime that can be used for other tax-related purposes.

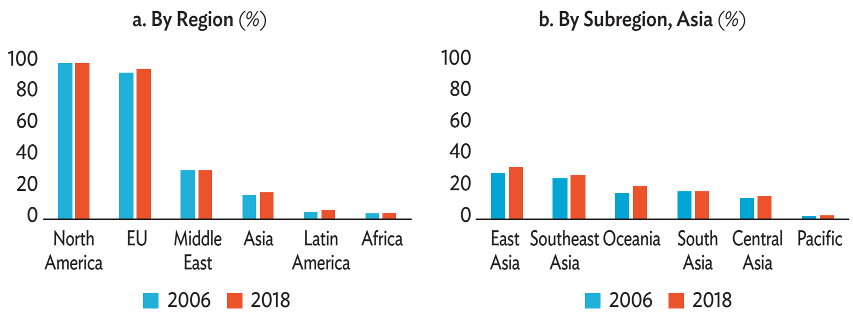
7 The design of model rules for platforms encompasses three broad dimensions. First, a targeted scope, focusing on accommodation, transport, and other personal services. Second, a broader scope of platform operators and sellers to ensure that as many relevant transactions as possible are being reported. Third, due diligence and reporting rules to warrant accuracy while avoiding overburdening procedures.

Figure 9.4: Compliance with Exchange of Information Standards in Developing Asia



Note: In panel (a), compliance refers to automatic exchange of information on request, which includes relevant information for the administration or enforcement of the domestic tax laws of a requesting party. In panel (b), compliance refers to the common reporting standard regarding financial accounts on a global level, between tax authorities.
Source: Authors, based on OECD's International Tax Cooperation Map. https://www.oecd.org/tax/international-tax-co-operation-map.htm (accessed July 2020).

Figure 9.5: Proportion of Regional Economies with Signed Double Taxation Treaty



EU = European Union.
Note: Values computed as the average of the indicator in all countries belonging to a region. For instance, the value for Asia in 2006 is an average of the values for all countries in Asia for the year 2006.
Sources: ADB Asia-Pacific Regional Cooperation and Integration Index, based on data from United Nations Conference on Trade and Development. Investment Policy Hub. https://investmentpolicy.unctad.org/international-investment-agreements; and International Bureau of Fiscal Documentation. Tax Treaty Database (both accessed December 2020).

The model rules could provide a framework for involving digital platforms and be complemented by an international legal framework to support the automatic exchange of information between jurisdictions. In parallel, a number of countries in the region are considering extending VAT to capture e-commerce and digital services, which could have significant impact on tax revenue for tax administrations (IMF 2021).

ADB's support to strengthen regional tax systems during the pandemic has focused on improving tax policy and assisting tax administrations in the region. ADB has promoted a holistic approach on tax relief by recommending deferring, lowering, or temporarily waiving taxes to stabilize the economy. At the same time, in collaboration with OECD, ADB is helping DMCs introduce VAT systems on digitalized and cross-border transactions. Support for strengthening tax administrations is offered in several areas: (i) ensuring that operational risks in core business processes of tax administrations are managed during the pandemic, (ii) enhancing compliance risk management, and (iii) supporting digital transformation of tax administrations.

A world reshaped by the pandemic requires addressing domestic resource mobilization with a wider perspective. First, it is important to balance raising tax revenues with promoting investments that contribute to robust recovery from the pandemic. Second, leveraging tax policy measures are needed to support strong growth and improve development outcomes. This also includes adopting a progressive tax system and promoting carbon or other environmental taxes to promote a green recovery. Lastly, it is crucial to protect the tax base from the tax challenges of the digital economy.

In line with these efforts, ADB announced the establishment of the Asia Pacific Tax Hub in 2020. The hub, launched in May 2021, aims to provide an open and inclusive platform for strategic policy dialogue, institutional and capacity development, information exchange through dialogue among DMCs, and knowledge sharing and collaboration and development coordination across partners. Through these aims, the hub hopes to assist developing countries in the region to define differentiated domestic resource mobilization and international tax cooperation goals that take due consideration of their respective country circumstances and level of development (ADB 2020).

9.4. Case Studies in Asia

While global initiatives for addressing tax challenges of the digital economy have made significant progress, the majority of Asian countries have implemented domestic tax reforms in the interim to address challenges in digitalization. Case studies of platform giants in the PRC illustrate challenges in the taxation of digital platforms, which may offer important lessons to other countries in the region, in addition to recent experiences of Asian economies in improving their tax systems in response to digitalization. While domestic measures can help alleviate challenges and support needed domestic resource mobilization in the interim, international coordination and cooperation will eventually be crucial in the digital economy.

Big Tech: Issues, Challenges, and Lessons Learned

The growth of the digital economy across developing Asia and in the PRC has been unprecedented. E-commerce accounted for over a third of retail sales in the PRC in 2019—relative to a little over a 10% in the United States—comprising over half of the global total in that year , and is estimated to reach over 60% in 2022 (Turley and Leung 2019). The platform giants—Baidu, Alibaba, and Tencent—have played a large role in these trends, with the latter two named among the top 10 global companies by market capitalization in March of 2019 (PricewaterhouseCoopers 2019).

Baidu, Alibaba, and Tencent have played a critical role in the rapidly expanding digital economy of the PRC. For instance, the Alibaba e-commerce platform features 10 million active sellers and accounts for 60% of the local e-commerce market. The Tencent and Alibaba digital ecosystems feature *superapps* allowing activities ranging from entertainment and retail to health and education. Baidu, Alibaba, and Tencent command considerable volumes of data that allow them to help partner firms better target their offerings, optimize placement of stores, and streamline supply chains (Turley, Ho, and Leung 2018). As these firms expand to neighboring South Asian and Southeast Asian markets, their geographic reach is growing, allowing e-commerce platforms to become increasingly regional (Turley and Leung 2019). The rapid growth and dominant role of *Alipay* (Alibaba) and *WeChat Pay* (Tencent) in Chinese retail payment systems have prompted the People's Bank of China to consider establishing its own retail (central bank) digital currency, which is being piloted since November 2020.

The challenges these Big Tech firms pose to tax systems span regulatory issues, questions over how to classify digital platforms, and difficulties embedded in tax collection. Institutional constraints have emerged as regulatory frameworks have not kept pace with rapid developments in the digital economy, prompting mismatches between the regulatory classification of ride sharing or transport services, for instance, and the classification for tax purposes. There is also uncertainty whether to treat platforms as either brokers or principals, muddling the nature of the requirements to meet tax obligations, likely contributing to the existing low compliance levels among vendors. The direction domestic policy on platforms and tax collection will take is also yet to be defined. Ambiguities surrounding cross-border transactions raise further complications for taxation, including limited classifications for outbound payments outlined in foreign exchange rules, difficulties in determining whether the consumption of imported digital services occurred beyond PRC borders, and insufficient guidance on permanent establishment—in particular, limited regulations governing mirror servers or user interfaces (Turley and Leung 2019).

The operational structure of Big Tech firms further challenges tax systems. Some may choose to operate under a variable interest entity structure. Under this setup, part of the organization would be located in an offshore holding company, while an onshore or domestic counterpart manages essential key operations. Such an arrangement, though legally sound, would allow transfer of substantial amounts of value outside borders, possibly undermining the domestic country's tax base. These arrangements highlight important challenges to the BEPS Action Plan and draw attention to controversial practices, including use of tax havens, internal transfer pricing, and distortion of the concept of permanent establishment. And while the BEPS Action Plan outlines measures to mitigate such practices, it lacks clear guidelines for implementation or enforcement. Such risks underline the need for clear policies or guidance on variable interest entity structures and measures to address them (Larson 2018).

Selected Examples of Measures to Improve Taxation in the Digital Era in Asia

Permanent Establishment Status

To counter the limitations of permanent establishment guidelines, India has introduced amendments to its domestic nexus rules to accommodate the concept of significant economic presence and account for digital economic activity. In 2019, India adopted a broader definition of the nexus for corporate income tax purposes (OECD 2018). This expanded definition allowed consideration of significant economic presence and enabled taxation of nonresident corporation profits regardless of the extent of the corporation's physical presence in the taxing jurisdiction. Under this amendment, the significant economic presence can be grounded on either: (i) a threshold based on local revenue or (ii) a threshold based on number of local users (OECD 2018). The first allows significant economic presence of a nonresident enterprise to be established if the aggregated payments from goods, services, or property by a nonresident in India exceed a specified amount in a given year. The second allows significant economic presence to be established if the number of local users exceeds a specific target. The two criteria, moreover, account for digital economic activity, including the download of data or software in the transactions covered under the first criterion and encompassing the engagement of users through digital means under the second (OECD 2018).

In Australia, the Multinational Anti-Avoidance Law seeks to deter permanent establishment avoidance by nonresident enterprises belonging to large multinational enterprises. The measure targets a particular trade structure whereby an overseas ("billing") company employs locally based workers (typically a local subsidiary) to provide goods and services to final customers in Australia while limiting the tax levied on the multinational enterprise group in Australia. In practice, such an arrangement is often available to companies offering digital goods and services. Such structures are liable to a reallocation of income after consideration of permanent establishment terms as well as a penalty comprising a proportion of the avoided tax. This measure is expected to generate an additional $77 million in annual corporate tax by increasing Australia's tax base by $5.4 billion annually (OECD 2018).

Improving Domestic Tax Systems and Resource Mobilization

In Malaysia, Singapore, and other countries, electronic systems are used to enhance tax compliance. Malaysia, Singapore, and other jurisdictions have tapped into electronic processes to issue pre-filled returns for some or all sources of personal income. These countries have taken a "deemed acceptance" approach of pre-filled returns following a certain length of time following the notice period (OECD 2018).

Several Asian countries have made progress in the adoption of a VAT in goods and services taxes in relation to cross-border transactions. Table 9.1 illustrates that a number of Asian countries adhere to international standards for VAT/GST guidelines, which is particularly relevant for high-value cross-border transactions in order to broaden the domestic tax base and consequently facilitate domestic resource mobilization.

Additional examples of domestic tax reforms taken by Asian economies include the expansion of the scope of withholding taxes in Malaysia and the Philippines. The two countries have taken steps to broaden royalties, expanding their scope to include payments for the right to use digital images, sound transmissions, and other software (Terada-Hagiwara, Gonzales, and Wang 2019).

As the digital economy grew strongly during the COVID-19 pandemic, the Philippines proposed a VAT and income tax for digital platforms. As public spending is growing, digital transactions are booming and the economy is contracting, such a tax aims at relieving budgetary pressure and enhancing domestic resource mobilization. The main addressees of this proposed tax would be multinational Big Tech companies, such as e-commerce platforms, media service providers, as well as ride-hailing companies, whose services would be subject to VAT. Further, nonresidents providing digital services in the country would be required to establish a local office and thus be subject to income tax.

Table 9.1: Progress in Select Asian Economies in Addressing the Challenges of the Digital Economy
(BEPS Action 1)

Jurisdiction	Cross-Border B2C Supplies of Services and Intangibles		Low-Value Imports
	Applies Principles of the International VAT/GST Guidelines on Cross-Border B2C Supplies of Services and Intangibles	Simplified Registration and Collection Mechanisms	Implementation of Mechanism for Collecting VAT/GST on imports of Low-Value Goods from Online Trade
Hong Kong, China	...	...	...
India	Yes[a]	Yes	No
Indonesia	Under consideration	...	No
Japan	Yes[b]	Yes	No
Kazakhstan	No	No	
Malaysia	Yes[c]	No	...
Philippines	Under consideration	No	No
PRC	Yes[d]	No	No
Republic of Korea	Yes[b]	Yes	No
Singapore	Yes	Yes	Under consideration
Sri Lanka	No	No	
Taipei,China	Yes	Yes	
Thailand	Under consideration		No
Viet Nam	Yes[e]	No	

B2C = business-to-consumer, GST = goods and services tax, PRC = People's Republic of China, VAT = value-added tax.
[a] Adoption of actions based on guidelines in 2017.
[b] Adoption of actions based on guidelines in 2015.
[c] Services tax policy on digital services.
[d] Adoption of actions based on guidelines in 2009.
[e] Adoption of actions based on guidelines in 2020.
Source: ADB (2021).

9.5. Policy Considerations[8]

Many of the key features of the digital economy raise risks for tax policy design, necessitating careful examination by policy makers. Multinational companies can disproportionately benefit from opportunities within national tax and legal systems to artificially reduce or remove tax obligations in different jurisdictions across the entire supply chain. Measures therefore need to be taken to ensure core activities of multinational firms do not gain inappropriately from exceptions from permanent establishment status. Among the key features of the digital economy with implications for tax policy are the central role of intangibles. The growing pervasiveness of data in business operations and the fragmentation of global production networks have also allowed other firms, in particular digitally driven firms, to benefit from these conditions. A further key characteristic posing risk is the ability of digital firms to centralize operations from remote locations and their growing capacity to conduct business activities with minimal personnel, allowing businesses to fragment their operations to avoid taxes.

The predominance of digital transactions could also offer opportunities to national tax authorities. In many cases, the increasing use of digital platforms for economic purposes could significantly facilitate the traceability of taxable transactions. In contrast to cash transactions, digital transactions can be traceable and information can be shared among concerned tax authorities. Tax authorities in some countries have introduced tax credits and other incentives to promote the use of electronic payments. Current discussions on the implementation of VAT/GST guidelines for online sales illustrate the importance of information sharing among platforms and tax authorities. There is, however, a significant gap in the capacity of tax administrations, both technological and operational, to implement these practices. Communication with digital platforms and businesses on their fiscal obligations will also be important if a cooperative compliance model is to be implemented in the future.

8 This chapter was initially a background paper for the theme chapter of the ADB Asian Economic Integration Report 2021 on *Making Digital Platforms Work for Asia and the Pacific* (ADB 2021). The policy considerations outlined in this section served as inputs to those discussed in the theme chapter.

Proposed measures to address the tax challenges of digitalization include active participation in international forums, adoption of domestic measures in the interim, collection of VAT for customer-to-customer transactions, and improvement in tax administration capacity. While the multilateral agreement on tax rules is implemented, measures that countries can take include active participation in international forums for tax matters and the adoption of domestic measures that comply with a country's international obligations in the interim. A VAT imposed on customer-to-customer transactions can be considered. Yet, while domestic measures can be effective to some extent, a proliferation of unilateral approaches, such as the introduction of a digital services tax, might not be a sustainable approach in the long term. Providing a level playing field among national tax systems in the region is therefore necessary for reducing tax competition and potential loopholes in the future. Importantly, improvements in tax administration capacity for both cross-border and domestic e-commerce transactions can be adopted, including the digitalization of tax invoices; the creation of a centralized and uniform tax administration system; and the introduction of risk-based management, self-assessment, and tax audits to facilitate the collection of tax information and the reduction in compliance costs for taxpayers (Terada-Hagiwara, Gonzales, and Wang 2019).

As regional trade agreements gradually include more elaborate provisions on digital trade and data flows, coordination on the implementation of the Inclusive Framework on BEPS two-pillar solution will be important in the future. Around 27% of the 275 existing regional trade agreements in the World Trade Organization (WTO) explicitly address e-commerce issues, ranging from customs duties, consumer protection, and data privacy (WTO 2017). From this group, about one-third specifies a right to impose an internal tax or charge on digital products. As these agreements include further measures, Asian economies will need to incorporate them into their tax practices.

Measures to strengthen tax systems also need to balance implementation of new tax rules and possible impact on tax incentives for foreign investment inflows. Governments in Asia have been keen to attract foreign direct investment (FDI) for employment, technology adoption, and support to new sectors. They have traditionally balanced measures to attract international investors with the need to ensure a fair share of tax is collected from multinationals. FDI flows are particularly sensitive to corporate tax regimes. In the past, Asian economies, including Indonesia and Thailand, have introduced cuts in statutory tax rates and offered tax incentives to attract FDI. As in OECD economies, evidence in the region suggests that tax regimes, including statutory tax rates but also other tax provisions, are important in explaining FDI allocation (Devereux and Griffith 1998, Muthitacharoen 2019). The potential effects of the new international tax rules on tax incentive regimes will require further assessment in the near future.

Large-scale policy responses to the pandemic will inevitably increase sovereign debt, underpinning the need for efficient tax systems and addressing the tax challenges of the digital economy to assure public debt sustainability in the longer term. It is expected that the sovereign debt-to-GDP ratio in Asia's developing countries will increase 7 percentage points in 2020 over 2019.[9] With the prospect of a significant economic downturn, high debt levels not only pose considerable risks to Asian economies and financial markets but will also weigh on governments' future fiscal space. Consequently, to ensure public debt sustainability and maintain needed public spending post-pandemic, the taxation of the digital economy is even more important for domestic resource mobilization.

Regional and international cooperation and coordination are necessary elements underlying effective response in adapting to existing corporate tax frameworks. Such cooperation should expand beyond OECD and G20 member economies to encompass developing economies. This encapsulates knowledge sharing on the best practices in tax administration and the monitoring of new developments. The G20/OECD Inclusive Framework can facilitate and monitor the implementation of a global solution to end tax avoidance by technological companies. Critically, BEPS Action 1 on the Digital Economy may become a minimum standard in the future, and countries will be assessed on their progress regardless of their membership or participation. The reputational risk for countries is therefore important. Meanwhile, the region continues to strengthen the issue of tax agreements, double taxation treaties, and other mechanisms for exchanging tax information, including the promotion of a unique legal entity identifier for firms in the region. Regional policy forums (such as ASEAN/+3 and Asia-Pacific Economic Forum) and multilateral development banks (such as ADB) can help advance these efforts.

9 Based on the simple average of the difference in the 2020 and 2019 general government gross debt as percentage of GDP for ADB's developing member countries, using data from International Monetary Fund. World Economic Outlook October 2020 Database (accessed 19 November 2020). Does not include Mongolia and Palau as data are unavailable.

Meanwhile, the pandemic provides an opportunity for regional cooperation to regain reform momentum. ADB's recently established the Asia Pacific Tax Hub, geared to help countries strengthen domestic resource mobilization and international tax cooperation.

References

Asian Development Bank (ADB). 2020. Achieving the Sustainable Development Goals by Strengthening Domestic Resource Mobilization and International Tax Cooperation. Speech by ADB President Masatsugu Asakawa. 17 September. https://www.adb.org/news/speeches/achieving-sdgs-strengthening-domestic-resource-mobilization-masatsugu-asakawa.

ADB. 2021. *Asian Economic Integration Report 2021: Making Digital Platforms Work for Asia and the Pacific*. Manila. http://dx.doi.org/10.22617/TCS210048-2.

Aslam, A. and A. Shah. 2020. Tec(h)tonic Shifts: Taxing the "Digital Economy". *IMF Working Papers* WP/20/76. Washington, DC. https://www.imf.org/en/Publications/WP/Issues/2020/05/29/Tec-h-tonic-Shifts-Taxing-the-Digital-Economy-49363.

Bradbury, D., T. Hanappi, and A. Moore. 2018. Estimating the Fiscal Effects of Base Erosion and Profit Shifting: Data Availability and Analytical Issues. *Transnational Corporations*. 25 (2): pp. 91–106.

Clausing, K. A. 2016. The Effect of Profit Shifting on the Corporate Tax Base in the United States and Beyond. *National Tax Journal*. 69 (4): pp. 905–934. https://doi.org/10.17310/ntj.2016.4.09.

Cobham, A., and P. Janskỳ. 2018. Global Distribution of Revenue Loss from Corporate Tax Avoidance: Reestimation and Country Results. *Journal of International Development*. 30 (2): pp. 206–232. https://doi.org/10.1002/jid.3348.

Cobham, A., and P. Janskỳ. 2019. Measuring Misalignment: The Location of US Multinationals' Economic Activity Versus the Location of Their Profits. *Development Policy Review*. 37 (1): pp. 91–110. https://doi.org/10.1111/dpr.12315.

Devereux, M. and Griffith, R. 1998. Taxes and the Location of Production: Evidence from a Panel of US Multinationals. *Journal of Public Economics*. 68 (3): pp. 335–367.

International Monetary Fund (IMF). 2021. Digitalization and Taxation in Asia. *Departmental Paper* No 2021/017. Washington, DC. https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2021/09/13/Digitalization-and-Taxation-in-Asia-460120.

Janský, P. and M. Palansky. 2019. Estimating the Scale of Profit Shifting and Tax Revenue Losses Related to Foreign Direct Investment. *International Tax and Public Finance*. 26: 1048–1103. https://doi.org/10.1007/s10797-019-09547-8.

Johansson, A., O.B. Skeie, S. Sorbe, and C. Menon. 2017. Tax Planning by Multinational Firms: Firm-level Evidence from a Cross-Country Database. *OECD Economics Department Working Papers* 1355 (64). https://doi.org/10.1787/9ea89b4d-en.

KPMG. 2020. *Taxation of the Digitalized Economy: Developments Summary*. https://tax.kpmg.us/content/dam/tax/en/pdfs/2020/digitalized-economy-taxation-developments-summary.pdf.

Larson, M. 2018. Alibaba's VIE Structure and Erosion of BEPS Goals in China's E-commerce Industry. *Temple International and Comparative Law Journal*. 33 (1): pp. 201–241.

Muthitacharoen, A. 2019. Assessing the Importance of Taxation on Foreign Direct Investment: Evidence from Southeast Asian Developing Countries. *eJournal of Tax Research 2019*. 17 (1): pp. 63–82.

Organisation for Economic Co-operation and Development (OECD) 2017. International VAT/GST Guidelines. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264271401-en.

———. 2018. *Tax Challenges Arising from Digitalisation – Interim Report 2018: Inclusive Framework on BEPS*. OECD/G20 Base Erosion and Profit Shifting Project. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264293083-en.

———. 2019a. OECD/G20 Inclusive Framework on BEPS Progress report July 2018 – May 2019. https://www.oecd.org/tax/beps/inclusive-framework-on-beps-progress-report-july-2018-may-2019.htm; http://www.oecd.org/tax/the-role-of-digital-platforms-in-the-collection-of-vat-gst-on-online-sales-e0e2dd2d-en.htm.

———. 2020a. *Tax Challenges Arising from Digitalisation – Economic Impact Assessment.*

———. *Inclusive Framework on BEPS*. Paris: OECD Publishing. http://www.oecd.org/tax/beps/tax-challenges-arising-from-digitalisation-economic-impact-assessment-0e3cc2d4-en.htm.

———. 2020b. *Revenue Statistics in Asian and Pacific Economies 2020*. Paris: OECD Publishing. https://doi.org/10.1787/d47d0ae3-en.

———. 2020c. *Model Rules for Reporting by Platform Operators with respect to Sellers in the Sharing and Gig Economy*. Paris: OECD Publishing. www.oecd.org/tax/exchange-of-tax-information/model-rules-for-reporting-by-platform-operators-with-respect-to-sellers-in-the-sharing-and-gig-economy.htm.

———. (2021) Addressing the tax challenges arising from digitalization of the economy. July 2021. https://www.oecd.org/tax/beps/brochure-addressing-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-july-2021.pdf.

OECD/ADB. 2019. Regional Meeting on Tax and Digitalization for Asia and the Pacific. Asian Development Bank, Manila. https://www.oecd.org/tax/beps/co-chairs-statement-regional-meeting-manila-november-2019.pdf.

PricewaterhouseCoopers. 2019. *Global Top 100 Companies by Market Capitalisation.* https://www.pwc.com/gx/en/audit-services/publications/assets/global-top-100-companies-2019.pdf.

Terada-Hagiwara, A., K. Gonzales, and J. Wang. 2019. Taxation Challenges in a Digital Economy—The Case of the People's Republic of China. *ADB Briefs* 108. Manila. https://www.adb.org/sites/default/files/publication/504616/adb-brief-108-taxation-digital-economy-peoples-republic-china.pdf.

Tørsløv, T. R., L. S. Wier, and G. Zucman. 2018. The Missing Profits of Nations. *National Bureau of Economic Research Working Paper* No. 24701. https://doi.org/10.3386/w24701.

Turley, C., K. Ho, and S. Leung. 2018. A Sisyphean Task? – Tax Plays Catch Up with China's Rapid Digitalisation. *International Tax Review*. https://www.internationaltaxreview.com/article/b1f7n29dkqsyz8/a-sisyphean-task-tax-plays-catch-up-with-chinas-rapid-digitalisation.

Turley, C. and S. Leung. 2019. We Need to Talk About Platforms: Ongoing Tax Challenges in China. *International Tax Review*. https://www.internationaltaxreview.com/article/b1j8y77w953x5t/we-need-to-talk-about-platforms-ongoing-tax-challenges-in-china.

World Trade Organization (WTO). 2017. Provisions on Electronic Commerce in Regional Trade Agreements. *WTO Working Paper* ERSD-2017-11. WTO Economic Research and Statistics Division. https://www.wto.org/english/res_e/reser_e/ersd201711_e.pdf.