A COMPARATIVE ANALYSIS OF TAX ADMINISTRATION IN ASIA AND THE PACIFIC

SEVENTH EDITION

ASIAN DEVELOPMENT BANK

ADB

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Abbreviations

ADB	Asian Development Bank
AEOI	automatic exchange of information
AI	artificial intelligence
API	application programming interface
ATO	Australian Taxation Office
BEPS	base erosion and profit-shifting
CbC	country-by-country
CIT	corporate income tax
COVID-19	coronavirus disease
CRM	compliance risk management
CRS	Common Reporting Standard
DLT	distributed ledger technology
EXC (DOM)	excise (domestic suppliers)
EOI	exchange of information
EOIR	exchange of information on request
FTA	Forum on Tax Administration
FTE	full-time equivalent
FY	fiscal year
G20	Group of Twenty
GDP	gross domestic product
GF	Global Forum on Transparency and Exchange of Information for Tax Purposes
GNI	gross national income
GST	goods and services tax
HDI	Human Development Index (UNDP)
HNWI	high net worth individual
HRMC	His Majesty's Revenue and Customs (United Kingdom)
HWPG	high wealth private group
ICT	information and communication technology
IMF	International Monetary Fund
IOTA	Intra-European Organisation of Tax Administrations
IRAS	Inland Revenue Authority of Singapore

IRBM	Inland Revenue Board of Malaysia
IRN	Invoice Reference Number (India)
IRP	Invoice Registration Portal (India)
ISORA	International Survey on Revenue Administration
Lao PDR	Lao People's Democratic Republic
LTO	large taxpayer office
LTU	large taxpayer unit
MDMIN	multiple directorates in ministry (ISORA term)
MOF	ministry of finance
MTRS	medium-term revenue strategy
MVT	motor vehicle taxes
NBA	Next Best Actions
NFS	No-Filing Service
NTA	National Tax Agency
OECD	Organisation for Economic Co-operation and Development
OGS	other goods and services
OTH	other
QR	quick response
PAYE	pay as you earn
PCT	Platform for Collaboration on Tax
PIT	personal income tax
PNG	Papua New Guinea
POS	point of sale
PRC	People's Republic of China
PWT	property/wealth taxes
RA-FIT	Revenue Administration Fiscal Information Tool
RA-GAP	Revenue Administration Gap Analysis Program
ROK	Republic of Korea
RS	Revenue Service
SDG	Sustainable Development Goal
SDMIN	single directorate in ministry
SGATAR	Study Group on Asia-Pacific Tax Administration and Research
SMEs	small and medium-sized enterprises
SSC	social security contributions
TADAT	Tax Administration Diagnostic Assessment Tool
TIN	taxpayer identification number
UHNWI	ultra-high net worth individual
UNDP	United Nations Development Programme
USB	unified semiautonomous body (ISORA term)

USBB	unified semiautonomous body with board (ISORA term)
VAT	value-added tax
YA	year of assessment

Guide for Readers

About the International Survey on Revenue Administration

The International Survey on Revenue Administration (ISORA) collects comparable data on tax administration from revenue bodies around the world using questions and definitions agreed by four international organizations: the Inter-American Center of Tax Administrations, the International Monetary Fund (IMF), the Intra-European Organisation of Tax Administrations (IOTA), and the Organisation for Economic Co-operation and Development (OECD). The Asian Development Bank (ADB) contributes to the cooperative activities of these organizations in managing the ISORA process by assisting with the collection and review of tax administration survey data from selected member economies and by sharing these data on the common online database—the IMF's Revenue Administration Fiscal Information Tool (RA-FIT).

ISORA commenced in 2016 (so named because the data collection occurred in 2016) and covered fiscal years (FYs) 2014 and 2015. Data provided by 135 revenue bodies were included in the RA-FIT database. Further ISORAs were conducted in subsequent years: the table below sets out relevant details.

ISORA Cycles and Related Information

ISORA Cycle	Fiscal Years in Focus	Economies (number, globally)	ADB Comparative Series on Tax Administration	
			Edition	Number of ADB Members
2016	2014 and 2015	135	3rd	28
2018	2016 and 2017	159	4th	34
2020	2018 and 2019	159	5th	38
2021	2020	165	6th	40
2022	2021	165	7th	41

ADB = Asian Development Bank, ISORA= International Survey on Revenue Administration.

Following the completion of ISORA 2018, the reporting of data and its quality was reviewed, and ISORA partners engaged with ISORA 2018 participants to gather feedback on the survey process. Based on this review and the feedback received, the ISORA partners agreed on the need for a major revision of ISORA, to enhance data quality while reducing the burden on revenue bodies in completing the survey. Consequently, the survey has been split into two components:

(i) **An annual questionnaire.** This includes questions to which the responses are more likely to change every year. These are mainly a subset of the numeric data questions that were in ISORA 2016 and 2018, with some revisions to improve clarity. The annual questionnaire comprises approximately 20% of the questions that were included in ISORA 2018.

(ii)   **A periodic questionnaire.** This includes questions where responses are less likely to change in the short term between annual surveys, as well as new questions agreed by ISORA partners to deal with emerging issues of importance. The next periodic survey is planned to commence in late-2023 and will gather data related to FY2022. Current plans are to conduct the periodic questionnaire around every 4 years.

ISORA 2022

Survey Management

ISORA 2022 was launched in September 2022 and the associated survey and data capture processes were completed in March 2023. ISORA 2022 collected data for FY2021 from participating economies.

Most participating revenue bodies provided data online, using the IMF's RA-FIT, whereas a few revenue bodies in Asia and the Pacific prepared a paper-based survey that was processed by ADB, also using the RA-FIT system. Participation was voluntary and included 41 ADB member economies from Asia and the Pacific. ISORA partner organizations (i.e., the OECD, the IMF, and IOTA) and ADB supported participants by assisting them with the completion of ISORA. The 41 revenue bodies included in this report correspond to the revenue bodies in Asia and the Pacific that were supported by either ISORA partner organizations or ADB.

While all the ISORA-sourced data have been reviewed by officials of collaborating organizations and members' revenue bodies, neither ADB nor the partner organizations have formally validated these data. As such, the ISORA data displayed should be regarded as self-reported by revenue body officials in the economies concerned.

ADB Members Participating in ISORA 2022

	ADB Member Economies Included in This Report and Their ISORA Manager			
Region	OECD	IMF	IOTA	ADB
Central and West Asia (8)	Georgia		Armenia, Azerbaijan, Kazakhstan	The Kyrgyz Republic, Pakistan, Tajikistan, Uzbekistan
East Asia (6)	The People's Republic of China; Hong Kong, China; Japan; the Republic of Korea	Mongolia		Taipei,China
Pacific (11)	Australia, New Zealand	The Cook Islands, Fiji, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu		
South Asia (6)	India	Maldives		Bangladesh, Bhutan, Nepal, Sri Lanka
Southeast Asia (10)	Indonesia, Malaysia, Singapore, Thailand			Brunei Darussalam, Cambodia, the Lao PDR, the Philippines, Timor-Leste, Viet Nam

ADB = Asian Development Bank, IMF = International Monetary Fund, IOTA = Intra-European Organisation of Tax Administrations, ISORA = International Survey on Revenue Administration, Lao PDR = Lao People's Democratic Republic, OECD = Organisation for Economic Co-operation and Development.

Data Comparability and Quality

The bulk of data tabulated in this report have been obtained from ISORA 2022 (for FY2021), ISORA 2021 (for FY2020), and ISORA 2020 (conducted for FY2018 and FY2019). Several other data sources have been used to complement the data presented and analyses undertaken, and to correct gaps and obvious errors in the data reported. All tables and figures contained in the report identify the source of the data displayed, including several instances where gaps or errors in data reporting have been addressed. It should also be noted that some data (e.g., revenue collections) are subject to revisions after publication. As a result, some data may not correspond with what was reported in prior editions of this report.

Considerable care needs to be taken with international comparisons of revenue bodies' tax administration setups and performance-related data. Many factors influence the functioning of tax systems, including size and composition of the tax base; tax reforms; level of economic development; structure and openness of the economy; business cycle fluctuations; and rate of political, economic, and social development. All these factors and others are likely to be relevant to varying degrees to the observations and findings presented here, especially since the report covers a mix of advanced, emerging, and developing economies. The report provides a limited array of demographic, economic, and social indicators to give readers some background on the level of development of the economies reported in this series (Appendix Table A.2 Parts 1 and 2).

Further, in relation to revenue bodies responsible for both tax and customs administrations, it should be noted that the data in this publication generally refer only to the conduct of the tax administration activities of these bodies. The data may therefore not be directly comparable with key performance indicators used and published by these administrations as these latter may include both tax- and customs-related data.

ISORA Reporting on Tax Administration in India

Care should be taken when examining the data reported by India's tax officials over the fiscal years reported in this series. Data reported in ISORA for fiscal years up to FY2020 refer only to the administration of direct taxes. For FY2021, the data refer to the administration of both direct and indirect taxes, and for some aspects of ISORA also include customs administration. While the additional data reported by India's tax officials are very much welcomed, their inclusion in aggregate form for FY2021 means that comparisons with much of the aggregate data reported for prior years have limited value.

Important Terminology and Conventions Used in ISORA for This Report

The report uses a range of ISORA-related and other terminologies that have specific applications in a revenue administration context, and that may be unfamiliar to some readers. Further background information can be found at the ISORA portal. The report and its tabulations also reflect the application of various conventions and definitions to enhance the comparability of data between economies and to assist in their analysis. Several of these conventions are explained below.

Fiscal Year

For ISORA purposes and for this report, the year specified in any survey question and tabulation is the fiscal period *ending* in that year (e.g., fiscal periods ending any time in 2021 are all considered to be FY2021). An exception to this is Japan, where the term "fiscal year" refers to the fiscal year commencing in the year specified

(e.g., the fiscal period commencing on 1 April 2020 and ending on 31 March 2021 is deemed FY2020). Largely for historical and cultural reasons, Japan's National Tax Agency also reports on some aspects of its performance according to an "operation year," which runs from 1 July to 30 June (e.g., operation year 2020 refers to the period 1 July 2020 to 30 June 2021). Data compiled on an operation year basis and displayed in this report are specifically noted.

Appendix Table A.1 displays the fiscal year-end date for each economy reported in the series. These dates range from 31 March to 31 December, meaning that, for some economies, FY2020 will represent only 3 months of tax system performance in calendar year 2020; for others it will represent up to 9 months. This fact has important implications for understanding the extent to which the coronavirus disease may have affected tax administration operations and performance in FY2020, given the onset of the pandemic in early 2020.

Revenue Body

ADB uses the term "revenue body" to refer to the organization responsible for the administration and enforcement of central government laws that impose taxes and other charges, given the wide variety of revenues that may be subject to its administration (e.g., taxes, levies, excises, duties, charges, contributions, and some nontax revenues). In some economies, which the report highlights, the revenue body is also responsible for the collection of social security contributions and/or the administration of customs laws (Appendix Table A.1).

Total Tax Revenue Collections

Within this report, ADB presents several ratios for revenue bodies where the reported amount of "total tax revenue collections" is the denominator for the ratios computed. For ISORA and/or ADB's purposes, several conventions are followed in determining the total tax revenue collections of a national revenue body:

(i) **Taxes and nontax revenues.** In presenting internationally comparable data on tax revenues and tax ratios in this series, ADB generally follows the OECD system of tax classification and definition of taxes. A detailed description of the OECD's system of tax classification can be found in the annual publication *Revenue Statistics in Asia and the Pacific*.[1]

In the OECD classification system, the term "taxes" is confined to compulsory unrequited payments to the general government or to a supranational authority. Taxes are unrequited in the sense that benefits the government provides to taxpayers are not normally in proportion to their payments. The term "tax" does not include fines, penalties, and compulsory loans paid to government. The OECD's guide includes specific discussion on borderline cases between taxes and nontax revenues in relation to certain fees and charges, including royalties.

(ii) **Social security contributions (SSCs)**. In line with the OECD classification of taxes, compulsory SSC, as defined, paid to general government are treated as tax revenues when computing tax ratios. Several economies included in this report administer SSC regimes and some have allocated responsibility for collection to the national revenue body. In these cases, SSC revenues collected by the revenue body form part of its total tax revenue for ISORA comparative analysis purposes.

(iii) **Personal income tax.** ISORA partners use the term "personal income tax (PIT)" to refer to all income taxes collected on behalf of individuals. PIT covers taxes levied on all income including wages and salaries, dividends, interest, and other income (e.g., rentals or self-employment) a person earns throughout a year, including income where tax is withheld at source by third parties (e.g., employers and financial institutions).

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[1] OECD. 2023 *Revenue Statistics in Asia and the Pacific 2023: Strengthening Property Taxation in Asia* (Annex A. The OECD Classification of Taxes and Interpretative Guide). Paris: OECD. https://www.oecd.org/tax/tax-policy/revenue-statistics-in-asia-and-the-pacific-5902c320-en.htm.

(iv)   **Value-added tax (VAT).** For comparative analysis purposes, and in respect of economies that administer a VAT form of indirect tax, ADB's compilation of total tax revenue collections in this series includes VAT revenue from imported goods and services (even where a separate customs administration body collects this revenue), as well as VAT revenue from domestic goods and services, net of all refunds of excess VAT credits paid to taxpayers. This approach is adopted on the basis that the revenue body is generally regarded as having overall responsibility for administration of the VAT system, including the tax affairs of those businesses subject to VAT on their imported goods and services, and because the approach is consistent with that of both the IMF and the OECD in their respective assessments and analyses when evaluating the administration and performance of national revenue bodies.

(v)   **Excises (paid by domestic producers).** For ISORA purposes, excises paid by domestic producers are included in "total tax revenue collections" where the national revenue body is responsible for their administration. As Chapter 2 explains, not all economies adopt this practice, and responsibility for their administration typically rests with the separate customs administration.

Staff Usage

ISORA collects data from participating revenue bodies on staffing, including "numbers of staff employed" at the beginning and end of a fiscal year and "staff usage." For comparative purposes, data on staff usage are expressed on an annualized basis in terms of "full-time equivalents" (FTEs)—that is, one staff member employed full time for a full year.

Tax and Customs Administration Institutions

In several economies in Asia and the Pacific, governments have established a single institution/body to administer tax laws and fulfill traditional customs responsibilities (e.g., trade facilitation, border controls, and the collection of trade taxes). This form of institutional setup mirrors a practice adopted to varying degrees in other regions of the world (e.g., Africa and South America).

With ISORA's primary focus being on tax administration, the survey is designed to explicitly exclude all aspects of customs administration, including tax revenue from trade taxes (e.g., customs duties, excises on imports, and taxes on exports) and the human and financial resources required to conduct all related tasks. However, for ease of data-gathering, the data reported on the demographics of revenue bodies' workforces generally include staff engaged in customs administration for the revenue bodies concerned.

Report Structure

This edition of the series provides a snapshot of revenue bodies' setups, revenue collections, and operational performance, and uses data, analyses, and examples to highlight key trends and examples of good practice and performance measures and indicators. The report is structured around six chapters:

- Chapter 1 provides important contextual background to the economies included in the series.
- Chapter 2 briefly describes the institutional and organizational setups of revenue bodies included in the report and provides a snapshot of each economy's tax system and recent revenue collection performance.
- Chapter 3 draws attention to selected major developments in national tax administration.
- Chapter 4 outlines work to reflect likely future trends in the digitalization of tax administration and describes progress in selected areas of administration and technologies.

- Chapter 5 summarizes operational performance data for key areas of tax administration.
- Chapter 6 looks at revenue bodies' financial and human resources and, in addition, provides data on important demographic features of their workforces.

The final part of the report is an appendix setting out

- details of revenue bodies that participated in ISORA 2022 (Appendix Table A.1);
- a limited array of social, economic, and demographic data on the members featured in this report (Appendix Table A.2 Parts 1 and 2); and
- tables that include the ISORA responses of revenue bodies and other data from related research that are the subject of analysis in this report (Appendix Tables A.3 Part 1 to A.65).

Executive Summary

In contrasting the tax administration setups and performance of revenue bodies across Asia and the Pacific, the Asian Development Bank's comparative series on tax administration aims to assist senior officials of revenue bodies to assess the design and performance of their respective tax administration operations, recognizing that most administer a similar range of taxes. Drawing on data from the International Survey on Revenue Administration (ISORA 2022) and related research, this seventh edition in our series analyzes and contrasts the administrative setups and performance of revenue bodies in 41 economies across the region, up to fiscal year (FY) 2021, and draws attention to reform opportunities.

As the previous edition of this report highlighted, few economies in the region escaped the ravages of the coronavirus disease pandemic and for some the impacts on public finances were catastrophic. Even by the end of FY2021, many economies had not fully recovered, with aggregate tax collections still below pre-pandemic levels. Some economies were not well placed fiscally before the pandemic; for them, the reform challenges assumed even greater importance.

On a positive note, the data and observations set out in this report point to a variety of reform opportunities for those revenue bodies required to rebuild their tax revenue base and/or modernize their setups and operations. What is now required, if not already in place, is a comprehensive and sustained reform effort, using all of the resources, advice, and tools available, and taking account of the positive experiences of other revenue bodies.

The essential starting point for any major reform plan is a comprehensive diagnosis of the strengths and weaknesses of a revenue body's setup, capabilities, strategies, and performance. To this end, many revenue bodies in the region have already committed to an independent review of their administration using the Tax Administration Diagnostic Assessment Tool (TADAT). A small number have even signed up for repeat assessments.* In addition, revenue bodies are able to obtain technical assistance from international bodies and other providers to help them on their reform journeys. Revenue bodies with significant reform aspirations are strongly encouraged to make use of such resources if they have not already done so.

As previous editions of this report indicated, opportunities for institutional and organizational reform of tax administration continue to exist for many economies in the region. Specific areas include strengthening the degree of autonomy given to revenue bodies and addressing the limitations of organizational designs that give primacy to "tax-type" considerations, noting that most bodies have moved to a "functional" model of organization, supplemented by a small number of specialist "taxpayer segment" and "tax-type" units. Other priorities in this area include strengthening revenue body capacity to monitor high risk taxpayers by expanding the scope and resources of operational units and programs for administering large corporate taxpayers and

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* ADB. 2022a. *Asian Development Outlook 2022: Mobilizing Taxes for Development*. Manila. https://www.adb.org/publications/asian-development-outlook-2022#.

the growing numbers of high net wealth individuals in Asia and the Pacific, as highlighted in external research. Chapters 2 and 5 explore these issues.

Revenue bodies continue to expand their use of modern information and communication technology (ICT) systems and tools for routine operations (e.g., electronic filing and payments, prefilled tax returns, online taxpayer accounts) and there is a clear trend of increased usage. At the same time, there is also recognition that these "traditional technologies"—described in work by the Organisation for Economic Co-operation and Development (OECD) Forum on Tax Administration (FTA) as Tax Administration 2.0—have largely reached the limits of their capacity and capability. Considerable challenges remain for all revenue bodies in the form of residual compliance gaps; compliance burdens for taxpayers; delays and uncertainties associated with revenue bodies' downstream verification processes; and incongruities between aspects of tax administration operations and with other areas of government.

With an eye to the future, pioneering work by the FTA, promoted under the banner of *Tax Administration 3.0,* is underway to chart likely future directions in the ongoing digital transformation of tax administration. This work, outlined in Chapter 4, should be of interest to all revenue bodies.

International tax cooperation can help governments improve the fairness of tax burdens and build public trust. On this point, efforts to curb international tax avoidance and evasion continue to be in focus for most, but not all, economies with the imminent implementation of the "Two Pillar" solution (as part of the Base Erosion And Profit-Shifting Initiative) and continuation of the productive work of the Global Forum to fully implement the international standard for the automatic exchange of information in respect of nonresidents' financial accounts. Members are encouraged to actively continue their support of these efforts and reap the benefits of full cooperation. Chapter 3 briefly describes the progress being made and several recently reported achievements.

A feature of the tax systems operating across Asia and the Pacific is the high level of reliance on indirect taxes, in particular value-added tax (VAT)/goods and services tax (GST) systems that apply to general goods and services. VAT/GST was the primary source of the tax revenues collected in FY2021 for just over 50% of participating revenue bodies (Chapter 3). Related to this, increasing numbers of jurisdictions across the region have implemented, or announced their intention to implement, changes to their VAT regimes, to levy and collect VAT from digital platforms and other vendors in respect of their cross-border business-to-consumer sales. Several economies (e.g., Australia, Indonesia, and Thailand) have reported useful amounts of tax revenue from their respective initiatives—previously an untapped source of revenue—applying the OECD's International VAT/GST Guidelines, elaborated in the VAT Digital Toolkit for Asia-Pacific released in March 2022. Revenue bodies administering a VAT regime are strongly encouraged to explore this opportunity if they have not already done so.

The level of human and financial resources available for tax administration is also a key consideration in the context of designing and implementing a reform program, not to mention the day-to-day conduct of tax administration operations. Unfortunately, examination of ISORA reporting on resource usage for tax administration across the region highlights several important areas of concern:

- Applying several benchmarks to the data reported, analysis over the years has consistently highlighted enormous variations across the region in relative terms. Some of this disparity owes to differences in the mix and design of the taxes being administered, and affordability considerations. However, these factors do not appear to offer sufficient explanation for revenue bodies in some economies. This leads to a conclusion that there are simply not enough human and financial resources, including for ICT investments.

- In at least 20% of revenue bodies, staff resource usage for the critical functions of post-filing verification and enforced debt collection appears inadequate to support a balanced and effective program of work.

- Finally, some revenue bodies were unable to account for how their staff resources were deployed across broad categories of work and/or the level of their ICT investments. Knowledge gaps, especially where they relate to resource usage, inevitably contribute to poor decision-making.

Attention to these matters in the economies concerned could be highly beneficial.

Decisions concerning organizational priorities and resource allocations will also ideally have a solid base of operational performance-related data. Unfortunately, for several revenue bodies, there were many gaps in the reporting of performance-related data, suggesting weaknesses in the underlying management information systems used to monitor tax operations and evaluate performance. This deficiency was particularly evident in relation to the delivery of taxpayer services (e.g., online access to taxpayer accounts, digital assistance facilities, telephone inquiry services, in-person contacts at revenue body offices) that are essential to achieving high levels of taxpayer compliance, and verification activities. The scale of these apparent weaknesses is concerning and, unless they are remedied quickly at the level of individual revenue bodies, it is likely that critical areas of underperformance will go unaddressed.

This report, the seventh in our series, analyzes the administrative frameworks, functions, and performance of revenue bodies in selected economies across Asia and the Pacific. The data, analyses, and guidance provided in the report are based on the *International Survey on Revenue Administration (ISORA 2022) conducted in 2022–2023, and on revenue bodies' documents published by international organizations to improve tax administration.*

The objective of the series is to help revenue bodies and governments identify opportunities for enhancing the operation of their tax systems by sharing internationally comparable data on aspects of tax systems and their administration.

A. The Economies Included in This Report

This report presents data reported by national revenue bodies from 41 economies in Asia and the Pacific. Not all these revenue bodies featured in prior editions of the series. A limited array of demographic, social, and economic indicators is provided to broadly inform readers about the level of development of the economies included (Appendix Table A.2 Parts 1 and 2). Among other things, these indicators reveal the enormously varied demographic, social, and economic circumstances of the economies. For example:

- **Citizen population (2021).** The economies surveyed include the two most populous globally (i.e., India and the People's Republic of China [PRC]) and some of the smallest (e.g., the Cook Islands and Palau). Looking at the citizen population of all surveyed economies in 2021:
    - Four had a population exceeding 200 million, including two with a population over 1 billion.
    - Six had a population between 50 million and 200 million.
    - Nine had a population between 10 million and 50 million.
    - Eleven had a population between 1 million and 10 million.
    - Six had a population between 100,000 and 1 million.
    - Seven had a population of less than 100,000.
- **Gross national income (GNI) per capita (2021).** Levels of GNI per capita for 2021 vary by a multiple of over 50 across the region, ranging from just over $1,100 (in Tajikistan) to well over $50,000 (in Australia; Hong Kong, China; and Singapore). Compared with 2020, when GNI per capita had fallen in over 80% of surveyed economies compared with 2019, increases in GNI per capita were experienced in almost 70% of economies in 2021, although for many to a minor degree. This included nine economies where the increase exceeded 10% (i.e., Azerbaijan; Bangladesh; Maldives; Georgia; Hong Kong, China; Nauru; the People's Republic of China; Singapore; and Taipei,China).

It is also worth noting that a low GNI per capita does not necessarily equate to a low overall level of human development, as assessed for example by the United Nations Development Programme (UNDP) (see below). Despite their relatively low GNI per capita ratios, economies such as the Kyrgyz Republic, Tajikistan, and Uzbekistan all have Human Development Index (HDI) scores approaching or exceeding the *high classification threshold applied by UNDP in its ranking of economies.*

- **Growth rates of real domestic gross product (GDP).** Well over two-thirds of participating economies experienced declines in their rate of growth in real GDP in 2020, in large part because of the impacts of the coronavirus disease (COVID-19) pandemic. Shocks to growth were greatest in economies affected by the downturns in tourism-related activities across the region, with the most significant impacts being experienced in the Cook Islands, Fiji, Maldives, Palau, and Sri Lanka. On a more positive note, these declines were largely reversed in 2021, with over 90% of economies reporting positive rates of growth in real GDP.

- **COVID-19 cases and deaths.** The COVID-19 pandemic in 2020 and its continuation into 2021 had impacts on just about all economies in Asia and the Pacific, in some cases to a significant degree (Figure 1.1). Case rates exceeded over 1,000 per 100,000 citizens in over 50% of participating economies, and were at their highest in Armenia, Georgia, Maldives, and Mongolia. While just about all economies were able to keep rates of death below 100 per 100,000 citizens, sadly this was not the case in both Armenia and Georgia.

Figure 1.1: COVID-19 Reported Cases and Deaths, 2022

COVID-19 = coronavirus disease, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea.
Notes: Comprehensive data not available for People's Republic of China.
Source: ADB COVID-19 Policy Database (accessed 31 December 2022).
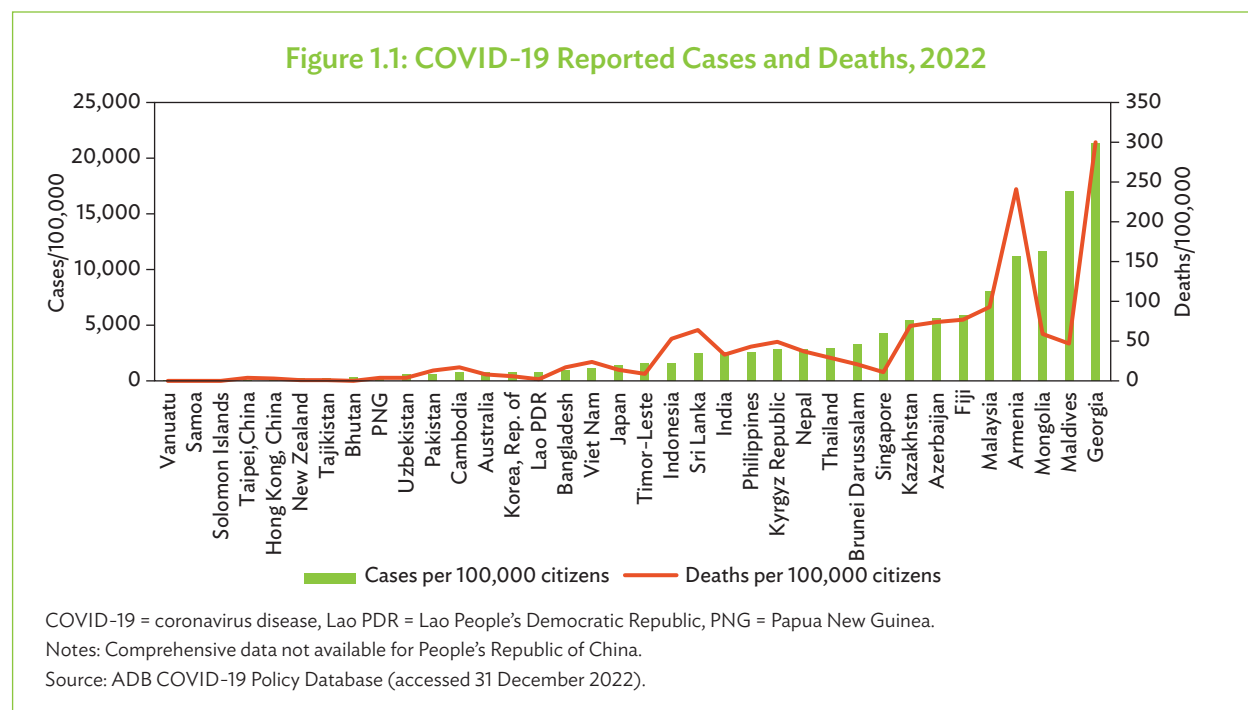
- **Overall human development (2021).** The HDI, compiled by UNDP, assesses the health, education, and income to provide a measure of human development that is comparable between economies. A value above 0.800 is classified as very high, one between 0.700 and 0.799 as high, one between 0.550 and 0.699 as medium, and anything below 0.550 as low. In its regular reporting, the UNDP ranks individual economies according to their respective ratings.

- Drawing on the latest published report on the HDI, 12 economies scored a medium rating and one is reported as low. On a positive note, significant improvements in the ranking of several economies can be observed over the 6 years, 2015–2021, including for Bangladesh, Georgia, the PRC, Sri Lanka, Tonga, and Uzbekistan.

Trust in government and perceptions of corruption. Most taxes are designed based on the principle that taxpayers will comply voluntarily with their tax obligations provided they receive quality services, and the revenue body is adequately equipped to detect and deter noncompliance. *Voluntary compliance with tax laws works best in an environment of trust—trust by citizens and business in government and its public sector agencies, and trust among fellow citizens and businesses that others are meeting all their tax obligations*. Data on perceived levels of corruption—taken as a proxy indicator of a lack of trust—provide some indication as to the likely state of health of an economy's environment for voluntary compliance with tax obligations.

The Corruption Perceptions Index, established and reported annually by Transparency International,[1] is a widely used ranking of corruption. It measures how corrupt each economy's public sector is perceived to be, according to experts and people's representatives. Each economy's score is a combination of at least 3 data sources drawn from 13 different corruption surveys and assessments. These data sources are collected by a variety of reputable institutions, including the World Bank and the World Economic Forum.

The data published for economies across Asia and the Pacific suggest that, while there have been some improvements in recent years—examples include Armenia, Kazakhstan, the Republic of Korea (ROK), Timor-Leste, Uzbekistan, and Viet Nam—challenges remain for many economies (Appendix Table A.2 Part 2). In its 2022 report, Transparency International noted that, while several nations were shown to be making advances in curbing petty corruption, grand corruption remained common in 2022 and the overall situation has barely improved in recent years.[2]

B. The Economic Outlook in Early 2023

After 2–3 years of difficult economic and social conditions experienced widely across Asia and the Pacific, most governments ended 2022 with hopes of a more stable and productive economic climate in 2023 and beyond as they sought to strengthen their fiscal positions and capabilities. As of early 2023, there were fair indications that this indeed could be the case for many economies across the region.

As highlighted in ADB's *Asian Development Outlook of April 2023*,[3] the 2023 year commenced with forecasts of promising rates growth across most economies, albeit with elevated levels of core inflation for some:

> Developing Asia's economies are reopening with impressive dynamism. Private consumption, investment, and services—including, hearteningly, tourism—are reviving now that the pandemic has largely passed. Growth is gathering pace after showing resilience last year amid weakened demand from advanced economies, lockdowns in the People's Republic of China (PRC), monetary policy tightening, and the Russian invasion of Ukraine.

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[1]   Transparency International. 2023. *Corruption Perceptions Index 2022*.
[2]   Transparency International. 2023. CPI 2022 for Asia Pacific: Basic Freedoms Restricted as Anti-Corruption Efforts Neglected.
[3]   Asian Development Bank (ADB). 2023. *Asian Development Outlook April 2023*. Manila.

The PRC's reopening after last year's lockdowns is brightening the outlook for both the region and the global economy. Regional growth is expected at 4.8% this year and next, with South Asia expected to grow faster than other regions. Growth in East Asia and Southeast Asia is benefiting from increased domestic demand, and growth in the Pacific from returning tourists. Headline inflation is gradually coming down to pre-pandemic levels—we forecast the rate for developing Asia at 4.2%, this year and 3.3% in 2024. Policymakers should nevertheless closely monitor price pressures which remain broad- based and elevated in several economies in the region.

Against the background of these positive signs, ADB's report does, however, contain reminders of the challenges that could stand in the way of the region's recovery. These include heightened financial stability risks, higher rates of interest and debt, and risks of global fracturing. Strong regional cooperation will continue to be critical to counter these uncertainties.

C. Mobilizing Taxes for Development

In *Asian Development Outlook 2022,* the Asian Development Bank (ADB) drew attention to the urgency of domestic resource mobilization for many economies across Asia and the Pacific.[4] Informed by substantial data and analysis, the report detailed a comprehensive menu of possible policy and administrative reforms. The suggested reforms continue to be relevant well into 2023, with many economies still in "recovery mode" after an extended period of relatively depressed economic activity.

In the area of tax administration, the 2022 report highlights several thematic areas warranting consideration for further reform, which are reiterated below, given their significance:

- reconfiguring governance arrangements, increasing revenue body autonomy, and strengthening core business processes;
- providing a strong enforcement environment (including extensive third-party information reporting and strong audit capacity);
- increasing tax administration oversight of selected businesses and taxpayers (i.e., those with the greatest tax potential);
- giving priority attention to simplifying administrative obligations, thereby reducing taxpayers' compliance obligations and making it easier for them to comply;
- providing adequate resources and ensuring the use of technology, an area of long-standing weakness across many revenue bodies across Asia and the Pacific;
- investing in modern digital technology applications to strengthen tax administration;
- implementing initiatives aimed at better understanding taxpayers' behaviors and improving their morale, thereby contributing to enhanced compliance and tax collection; and
- improving the use of communication channels to shape perceptions of enforcement capacity, improve morale, and influence tax compliance.

Referring to each of these areas, the ISORA data in this series are intended to help revenue body officials examine their capacity for conducting essential activities, and their performance compared with revenue bodies in similar economies, as well as providing ideas for further reform.

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4   ADB. 2022a. *Asian Development Outlook 2022: Mobilizing Taxes for Development*. Manila.

Institutional Setups, Responsibilities, and Tax Collections

Key Messages

- Opportunities for institutional and organizational reform of tax administration continue to exist for many economies in the region.
- Tax collections performance in fiscal year (FY) 2021, relative to FY2020 and FY2019, was mixed across the region, with economy-by-economy comparisons complicated by wide variations in the fiscal reporting periods of participating revenue bodies and unevenness in pandemic impacts. That qualification aside:
  - Tax collections in FY2021 exceeded FY2019 levels in around one-quarter of participating revenue bodies.
  - Tax collections in FY2021 grew strongly in several economies (for the most part located in the regions of Central and West Asia and South Asia).
  - Tax collections in FY2021 were at a level below performance in FY2019, the year preceding the pandemic, for over one-quarter of revenue bodies, reflecting ongoing depressed economic conditions and other impacts of the pandemic.
- There remains considerable unevenness in the overall tax effort across economies in Asia and the Pacific, with tax ratios for FY2021 ranging from just over 5% to 33%; of continuing concern is the large number of economies, including three with a total citizen population exceeding 660 million, where the tax ratio remains stuck below 15%, widely considered the minimum level required to achieve sustainable development objectives.

This chapter introduces readers to the revenue bodies included in this report. Specifically, it sets out brief information on their respective institutional setups for tax administration, and the taxes administered and their relative contribution to overall revenue collections. The final section of the chapter provides a summary of revenue collection performance up to FY2021, with an emphasis on the impacts of the COVID-19 pandemic.

A. Institutional Setups

Previous editions of this series went to some lengths to describe the features of the institutional setups in place for tax administration, along with their rationale, across Asia and the Pacific, and to set out guidance from international bodies on recommended good practice. These matters will be explored in further detail in ISORA 2023. For this edition, Box 2.1 sets out a brief reminder of the key elements of guidance on institutional setups and organizational structure. Some of the features highlighted are discussed briefly later in this report (e.g., the dedicated focus on the administration of large taxpayers).

Box 2.1: Recommended Practice—Institutional Setups for Revenue Administration

- There is a ***unified revenue body for the administration of direct and indirect taxes (including excises);*** where there is a regime for the collection of social security contributions, the revenue body is responsible for their collection and enforcement or, at a minimum, actively supporting other agencies responsible for these functions.

- The revenue body ***has adequate autonomy,*** particularly concerning organizational design, devising plans and objectives, managing budgets, and key aspects of human resource management (e.g., recruitment, promotions, and dismissals)

- The revenue body comprises ***all the functions necessary for effective administration of tax laws,*** including dedicated divisions for tax fraud investigations, internal audit, and internal affairs.

- The revenue body ***is structured primarily on a functional basis*** but also includes divisions and units to manage the compliance of different taxpayer segments, in particular large corporate taxpayers.

- The revenue body has an ***adequately resourced and empowered headquarters*** operation to oversee all aspects of administration conducted at the regional and local levels of its operations.

- Office networks for tax administration operations (e.g., service delivery, debt collection, verification) ***are designed to take account of viable critical mass and economic considerations, with specialist national and/or regional centers for some functions.***

- The revenue body ***provides advice on the implementation and operation of tax policy but is not primarily responsible for tax policy matters,*** which are seen to best fall within the province of a dedicated tax policy function within the ministry of finance or its equivalent.[a]

[a] Detailed consideration of developments and trends in the organization of ministries of finance can be found in IMF. 2015. The Evolving Functions and Organization of Finance Ministries. *IMF Working Paper.* WP/15/232. Washington, DC: IMF.

Source: Authors' compilation and emphasis.

ISORA and Institutional Setups

ISORA classifies the institutional setups most often observed for national tax administration into five categories, outlined in Table 2.1. Generally speaking, the main difference between the setups observed, both within the region and globally, turns on their respective levels of autonomy and the degree of independence they are given to perform their tax administration role (and any other roles that might be allocated to them).

Revenue body autonomy and independence can encompass many aspects but principally concerns the degree of authority granted in relation to aspects of financial and human resource management. Other factors that may be relevant include the scope and nature of taxes to be administered, the range of functions to be performed, and whether the revenue body has other roles not strictly related to the administration of tax laws (e.g., collection of nontax debts). These matters are all considered part of the periodic ISORA questionnaire, the next cycle of which will coincide with ISORA 2023. Readers interested in gaining a deeper understanding of these matters are directed to prior editions of ADB's comparative series reports.[5]

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[5]   For example, see the fourth edition and the fifth edition.

Table 2.1: ISORA Classification of Institutional Setups for Revenue Administration

Acronym	Description
SDMIN	**Single directorate in ministry**—revenue administration functions are the responsibility of a single organizational unit located within the structure of the ministry.
MDMIN	**Multiple directorates in ministry**—functions are the responsibility of multiple organizational units located within the structure of the ministry (often sharing necessary support functions such as information technology and human resource management).
USB	**Unified semiautonomous body**—functions, along with the necessary support (e.g., information technology and human resource management), are carried out by a unified semiautonomous body, the head of which reports to a government minister.
USBB	**Unified semiautonomous body with board**—functions, along with necessary support (e.g., information technology and human resource management), are carried out by a unified semiautonomous body, the head of which reports to a government minister and oversight body/board of management, which may include external persons.
OTH	**Other**—an institutional arrangement for which none of the above descriptions is appropriate.

Source: ISORA consolidated glossary of terms.

Appendix Table 1 identifies revenue bodies included in this report, and also displays the last reported type of institutional setup in place and whether the revenue body is responsible for the collection of social security contributions (SSCs) (where applicable) and the administration of customs laws. Table 2.2 summarizes these data.[6]

Table 2.2: Types of Institutional Setups in Place in Asia and the Pacific, FY2021

Measure	Type of Institutional Setup				
	Single Directorate in MOF	Multiple Organizational Units in MOF	Separate Unified Semiautonomous Body		Other
			No Independent Board	With Independent Board	
Overall no. (% of total)	13 (32%)	9 (23%)	10 (25%)	4 (10%)	5 (10%)
No. with SSC role	2	1	3	0	2
No. with customs role	1	4	3	1	2

FY = fiscal year, MOF = Ministry of Finance, SSC = social security contribution.
Sources: ISORA 2018; ISORA 2021; related research on revenue bodies' corporate documents.

In brief, there is a mix of institutional setups in place, with no single model dominant across Asia and the Pacific. Further details concerning the five economies included in the "other" category are:

(i)   **Bangladesh.** Responsibility for tax and customs policy and administration rests with the Internal Resources Division of the Ministry of Finance (MOF). A National Board of Revenue chaired by the Internal Resources Division secretary and supported by board members with executive responsibilities assists in the planning and direction of tax administration operations. ISORA 2018 data indicated that the board had limited authority and flexibility concerning the resolution of financial management issues, while authority in relation to aspects of human resource management was extensive. The National Board of Revenue's organizational structure features separate direct and indirect tax wings and a large taxpayer office.

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[6]   ISORA 2019.

(ii)   **India.** There are separate direct and indirect tax administrations, each with their own board, operating under a coordinating Department of Revenue. ISORA 2018 data, which were confined to the administration of direct taxes, indicated that its board had broad authority on aspects of financial management, although it was subject to a broad mix of limitations concerning aspects of human resource management (e.g., staff appointments and dismissals). As indicated in Chapter 1, commencing with ISORA 2022 (FY2021), data reported by Indian tax authorities and used in this report relate to the administration of both direct and indirect taxes.

(iii)   **Malaysia.** There are separate direct and indirect tax administrations, with direct taxes under the responsibility of the Inland Revenue Board of Malaysia (IRBM) while indirect taxes fall within the domain of the Royal Malaysian Customs Department. Only the IRBM is represented in this series. ISORA 2018 data indicated that the IRBM had broad authority over key aspects of financial and human resource management.

(iv)   **People's Republic of China.** The State Tax Administration is an independent agency of the State Council, reporting to the minister of taxation. It is an example of a highly integrated revenue administration institution, responsible for the administration and collection of all taxes (including subnational taxes since 2019) as well as SSC. ISORA 2018 data indicated that the State Tax Administration had broad authority over all key aspects of financial and human resource management.

(v)   **Tajikistan.** The revenue body, known as the Tax Committee, sits directly under the government (not under the MOF) and is headed by a chair appointed by the president. The leadership team also includes a first deputy chair and four deputy chairs. It is responsible for the collection of all taxes and SSC. ISORA 2018 data indicated that the Committee had broad authority over all key aspects of financial and human resource management.

The Collection of Social Security Contributions

Regimes of public SSC to raise revenue to support specific government welfare-related programs, such as for unemployment, health, and retirement benefits, exist in many economies around the world, most often in advanced economies. They are particularly common within Europe and the United Kingdom, North America, and Latin America and the Caribbean, where just about all governments have established public regimes, in many cases responsible for a large share of government revenue. Within Asia and the Pacific, SSC regimes are less common and, for some economies, relatively insignificant in terms of the amounts of revenues raised (Tables 2.3 and 2.4). The Organisation for Economic Co-operation and Development (OECD) Revenue Statistics publication in 2023 for economies in Asia and the Pacific[7] observed that, for the 28 economies included in its series, SSC accounted for a relatively small proportion of tax revenues and, on average, were well below the averages of Latin American and Caribbean economies (4.0% of GDP) and the OECD (8.9% of GDP in 2019.

Table 2.3: Administration of Social Security Contributions in Asia and the Pacific

SSC Collection and Enforcement Functions Are Performed by the Revenue Body	SSC Collection and Enforcement Functions Are Performed by a Separate Body
Armenia, Azerbaijan, the People's Republic of China, Kazakhstan, the Kyrgyz Republic, Nepal,[a] Pakistan,[a] Uzbekistan	Japan, the Republic of Korea, Malaysia, Mongolia, the Philippines, Thailand, Viet Nam

SSC = social security contribution.

[a]   These revenue bodies administer levies that have a social purpose and are reported in ISORA 2022 as SSC revenues.

Source: ISORA 2022.

Over the past few decades, governments in many economies around the world have sought to achieve greater operational effectiveness and efficiency in collecting SSC by integrating their collection with tax collection, under the administration of the main revenue body. The fifth edition of this series set out the rationale generally relied on for adoption of this integrated model of revenue collection, drawing largely on the work of the fiscal affairs area of the International Monetary Fund (IMF) fiscal affairs area in the early 2000s.[8] A more recent IMF report identifies the different levels of integration that can be achieved, updates the case for the integration of collection functions, identifies lessons from recent experience in making the transition to an integrated setup, and describes the high-level elements of a strategy for implementing integration.[9]

Within Asia and the Pacific, adoption of an integrated model for tax and SSC collection has been widespread among the economies of Central and West Asia (including Azerbaijan in 2018 and the Kyrgyz Republic in 2019) but is less frequently observed elsewhere in Asia and the Pacific (i.e., only in the PRC).

Customs Administration

Several governments in the region have aligned the administration of tax and customs operations within a single institution. Of the 41 economies participating in ISORA 2021, 11 have this form of institutional arrangement. While the topic has not been researched in depth, there appear to be three factors that, either singularly or in combination, explain this form of institutional setup: (i) the high proportion of revenue collected from trade taxes and duties, etc.; (ii) economies of scale considerations; and (iii) historical factors. Factors (i) and (ii) are likely to be most relevant in the case of many island economies in the Pacific (e.g., Fiji, Samoa, Tonga, and Vanuatu), where this form of institutional setup is in place, whereas factor (iii) appears to be relevant mostly in the case of Bangladesh and Pakistan, both members of the British Commonwealth and operating with an institutional setup along the lines of that seen in the United Kingdom up to 2004. The precise reasons for its adoption by governments in Armenia, Georgia, and Kazakhstan are not known.

B. The Organization of Tax Administration

The organizational setups for tax administration were last examined in depth in ISORA in 2019. As a result, it is not possible to provide a definitive summary of the current landscape or the perceived strengths and weaknesses of the setups currently in place across the region. However, monitoring by the authors of this series and the limited data gathered in ISORA 2022 point to the potential for reform and related benefits on several fronts by many revenue bodies.

Organizing Tax Administration around Functions

As found in 2019 and as is largely still the case, in several economies the organization of tax administration continues to be firmly built according to "tax-by-tax" principles, especially in South Asia. This forgoes the potential benefits of a more integrated approach to administering taxes whereby work is organized primarily on a "functional" basis, supported by "taxpayer" and "tax-by-tax" specialist units—in short a hybrid form of organizational structure.

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[8]   See the fifth edition.
[9]   IMF. 2021. *Integrating the Collection of Social Insurance Contributions and Personal Income Taxes.* Technical Notes and Manuals TNM/2021/008. Washington, DC: IMF.

At the time of preparing this report, only one revenue body was known to be building a case for reform: Bhutan's Department of Revenue and Customs was exploring the implications of moving from a regional to a functional structure and had a systemic review of its existing structures underway.

Large Taxpayer Units/Programs

Globally, many economies and their revenue bodies have benefited greatly from the establishment and operation of dedicated large taxpayer units and programs to manage the tax affairs of their largest corporate taxpayers, as strongly advocated by international bodies. However, as discussed in Chapter 5 of this report, in around 30% of participating revenue bodies, application of this approach to improving tax compliance either is absent or appears underutilized.

High Net Wealth Individuals Units/Programs

A similar and in some respects more serious observation concerns the tax affairs of wealthy individuals, in ISORA referred to as "high net wealth individuals (HNWIs)." *Despite reports of significant growth in both the numbers and the assets of these individuals globally and across Asia and the Pacific, dedicated programs to manage their tax affairs are a largely untried concept in tax administration across the revenue bodies in the region (Chapter 5).* While this issue may be a sensitive matter for some governments and administrations, the cause of voluntary compliance is clearly served when the largest potential taxpayers are seen to be subject to levels of scrutiny from their respective revenue bodies that are appropriate to their circumstances.

C. The Onset of the COVID-19 Pandemic

With the onset of the COVID-19 pandemic in early 2020 and its continuation into 2021, governments globally responded with a broad mix of measures to assist citizens and businesses, many with direct implications for revenue bodies and the functioning of tax systems. For example, in its comparative series on tax administration in 2021,[10] the OECD observed that the already wide responsibilities of many revenue bodies were taken to new levels as many governments increased their levels of support for citizens and businesses. For many, these new responsibilities often went beyond the functions normally performed by revenue bodies and involved (i) financial assistance to citizens and businesses, either targeted or on a more universal basis; (ii) services using revenue body staff or support wider government COVID-19 responses; and/or (iii) information assistance—supporting government by sharing information or using a revenue body's data analytics capabilities.

ISORA 2022 did not include any specific questions concerning whether additional responsibilities were given to revenue bodies because of the pandemic. However, some insight into this matter insofar as it relates to economies in the region can be found in the prior edition of this series, in several OECD publications[11] and in official reports of some revenue bodies in the region.

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[10]   OECD. 2021a. *Tax Administration 2021.* p. 39. Paris: OECD Publishing.
[11]   OECD. 2021b. *Tax Administration: Digital Resilience in the COVID-19 Environment.* OECD Policy Responses to Coronavirus (COVID-19). Paris: OECD Publishing.

D. The Taxes Administered by the Revenue Body

The Range and Nature of Taxes Administered

The range and nature of taxes administered in FY2021 by the 41 revenue bodies included in this report are set out in Appendix Table A.3 (Parts 1 and 2) and summarized in Table 2.4. Appendix Table A.6 presents their relative contribution to all the revenue collected by each participating revenue body.

Governments in most economies have unified the administration of direct taxes and the main indirect tax within a single body and administer income taxes for both corporates and individuals and a value-added tax (VAT)/ goods and services tax (GST) form of indirect tax. Responsibility for the administration of excises on domestically manufactured products tends to be split evenly across economies between revenue bodies and customs bodies. Less than half of participating revenue bodies reported that they administered property taxes.

Table 2.4: Revenue Types Administered by the Revenue Body, FY2021

Revenue Bodies	Revenue Type									
	PIT	CIT	VAT/GST	EXC (DOM)	MVT	PWT	EGT	OGS	SSC	OTH
Number	39	40	33	24	16	19	11	12	9	39
% of total	95	95	80	58	39	46	27	29	22	95

CIT = corporate income tax, EGT = estate/gift taxes, EXC (DOM) = excise (domestic suppliers), FY = fiscal year, MVT = motor vehicle taxes, OGS = other goods and services, OTH = other taxes, PIT = personal income tax, PWT = property/wealth taxes, SSC = social security contributions, VAT/GST = value-added tax/goods and services tax.
Source: ISORA 2022.

Revenue Collections in Fiscal Years 2020 and 2021

The onset of COVID-19 in early 2020 and its continuation into 2021 affected just about all economies in the region. It is well documented that many governments responded to ameliorate the impacts of the pandemic with a variety of fiscal measures, including tax-related measures such as tax deferrals, extensions of time to pay, tax rate adjustments, property tax exemptions, and postponement of interest charges. As outlined in this report, the overall impact of these measures, and the significant downturn in economic activity many economies experienced on tax system collections in both FY2020 and FY2021, was significant.

An issue to be borne in mind when contrasting changes in aggregate revenue collections for FY2020 and FY2021 relates to the fiscal periods of the individual economies concerned. As Table 2.5 indicates, economies across Asia and the Pacific have a broad mix of fiscal periods, meaning that, for "early balancers" (i.e., fiscal periods ending in the first and second quarter [Q1 and Q2]), the revenue impact of the pandemic (which commenced late in Q1 of 2020) is likely to have been less severe in FY2020 and at a more significant level in FY2021. On the other hand, "late balancers" (i.e., fiscal periods ending in Q3 and Q4) are likely to have endured a more significant revenue impact in FY2020.

Aggregate revenue collections (i.e., both tax and nontax revenue) reported by revenue bodies in ISORA are displayed in Appendix Tables A.4 and A.5 for fiscal years up to 2021. Figures 2.1 and 2.2 display the changes in total tax revenue and total revenue collections between FY2019 and FY2020.

Table 2.5: Fiscal Year Periods of Surveyed Economies

Fiscal Year Group	Economies in This Fiscal Year Group
Quarter 1 balancers (i.e., FY ending 31 March)	Brunei Darussalam; Hong Kong, China; India; Japan; New Zealand; Singapore
Quarter 2 balancers (i.e., FY ending 1 April–30 June)	Australia, Bangladesh, Bhutan, the Cook Islands, Nauru, Pakistan, Samoa, Tonga
Quarter 3 balancers (FY ending 1 July–30 September)	The Lao People's Democratic Republic, Nepal, Palau, Thailand
Quarter 4 balancers (FY ending 1 October–31 December)	Armenia; Azerbaijan; Cambodia, the People's Republic of China; Fiji; Georgia; Indonesia; Kazakhstan; the Republic of Korea; the Kyrgyz Republic; Malaysia; Maldives; Mongolia; Papua New Guinea; the Philippines; Solomon Islands; Sri Lanka; Taipei,China; Tajikistan; Timor-Leste; Uzbekistan; Vanuatu; Viet Nam

FY = fiscal year.
Source: Appendix Table 1.

Fiscal Year 2020

As will be evident from the data reported and displayed in Figure 2.1, many revenue bodies experienced significant declines in tax revenue collections in FY2020. Substantial reductions in tax collections (i.e., over 20%) were experienced in Fiji, Indonesia, Maldives, Mongolia, and Sri Lanka, with downturns in the tourism industry a major contributing factor in many of these economies. All these economies fall within the group of "quarter 4 balancers" identified in Table 2.5.

Figure 2.1: Revenue Body Tax Collections, Fiscal Years 2019 and 2020
(% change)
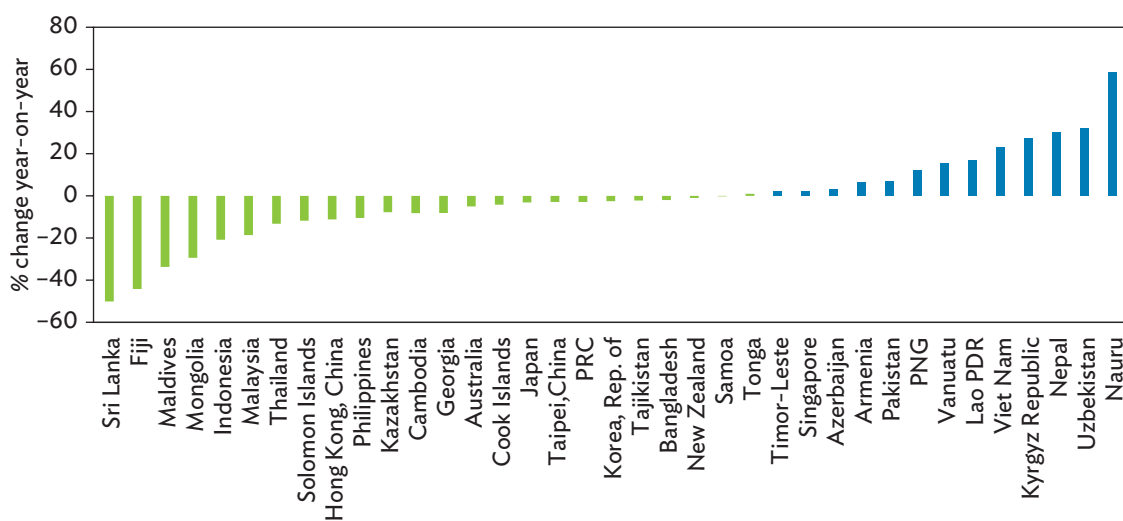
FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Sources: ISORA 2020; ISORA 2021.

Elsewhere, reductions in tax collection were less severe, although impacts were seen in economies. Conversely, of the economies identified as "quarter 1 and quarter 2 balancers" where comparable data are available, reductions in total tax revenue collections where they occurred were relatively small, the one exception being for Hong Kong, China (−11.1%).

In five economies, total tax revenue collections reported increased by more than 20%, year-on-year: the Kyrgyz Republic, Nauru, Nepal, Uzbekistan, and Viet Nam. Only one of these economies has a fiscal year ending in Q1 and Q2 of the calendar year (Nauru), while the tax revenue base of the Kyrgyz Republic was bolstered in FY2019 and FY2020 with the introduction of new arrangements for the collection of SSC by the revenue body. SSC constitute a relatively significant proportion (20%) of total taxes collected in the Kyrgyz Republic. The factors explaining the large increases in tax revenues in the other four economies were not identified.

Looking across all participating revenue bodies, just under 60% experienced a net decline in tax collections, although the overall impact of the pandemic will also have been experienced in other economies that saw tax collections falling short of budget targets. Unsurprisingly, many revenue bodies reporting declines in tax revenues also reported growth in end-year tax arrears exceeding 10% of the prior year level—Australia, Bangladesh, India, Maldives, New Zealand, the Philippines, Tajikistan, and Thailand were all in this category.

Fiscal Year 2021 and Overall Impact across Fiscal Years 2020 and 2021

Tax revenue collections performance for FY2021 was mixed across the region, albeit in overall terms reflecting a substantial improvement compared with FY2020 (Figure 2.2). Revenue recovered quickly in around 50% of economies during the year, with around 25% of revenue bodies achieving a level of revenue collection exceeding 20% of FY2020 achievements. Revenue collection performance was at its strongest in many economies of Central and West Asia, especially in the Kyrgyz Republic, Pakistan, Tajikistan, and Uzbekistan. On the other hand, revenue collections in around 20% of revenue bodies were lower in FY2021 vis-à-vis FY2020, and at their weakest level in the Cook Islands, Palau, Singapore, and Vanuatu, all impacted by declines in economic activity

Figure 2.2: Revenue Body Tax Collections, Fiscal Years 2021 and 2020
(% change)
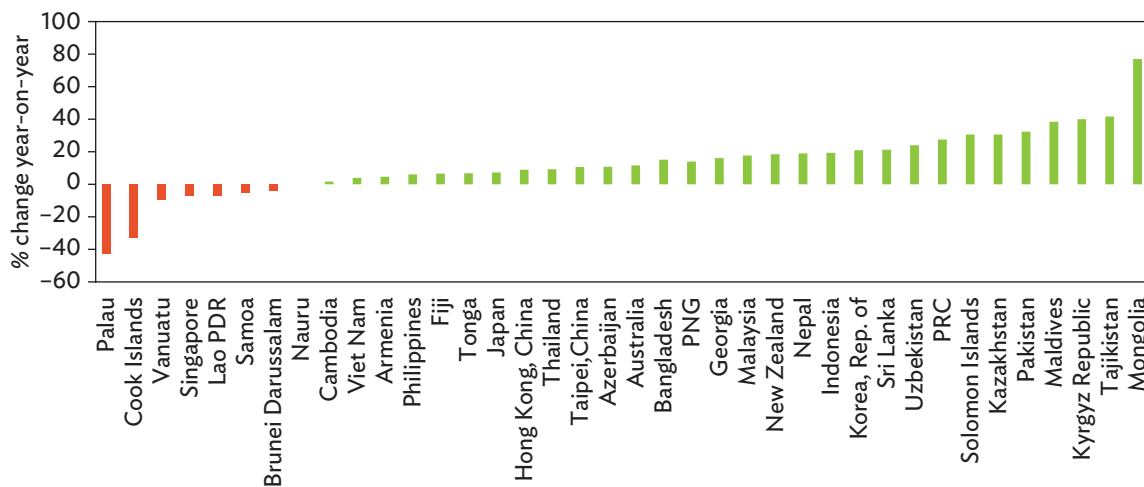
FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Sources: ISORA 2021, ISORA 2022.

resulting from the pandemic. In the case of Singapore, an additional factor was the implementation of support measures for businesses such as tax rebates that contributed to the decline in revenue collections in FY2021.

With the many changes in tax revenue collection performance reported by many revenue bodies over FYs2020 and 2021, it is useful to contrast the performance in FY2021 with that in FY2019, the year preceding the pandemic (Figure 2.3). From this perspective, performance was again mixed:

- For 12 revenue bodies, tax collections in FY2021 were at a level below that achieved in FY2019, reflecting ongoing depressed economic conditions and other pandemic impacts in the economies concerned (in particular in the Cook Islands, Fiji, and Sri Lanka).

- For 10 revenue bodies, tax collections in FY2021 were only marginally ahead (i.e., less than 15%) of the level in FY2019.

- Six revenue bodies (the Kyrgyz Republic, Nauru, Nepal, Pakistan, Tajikistan, and Uzbekistan) reported strong growth in tax collections performances in FY2021 (i.e., increases exceeding 30% of the FY2019 level).

Figure 2.3: Revenue Body Tax Collections, Fiscal Years 2021 and 2019
(% change)
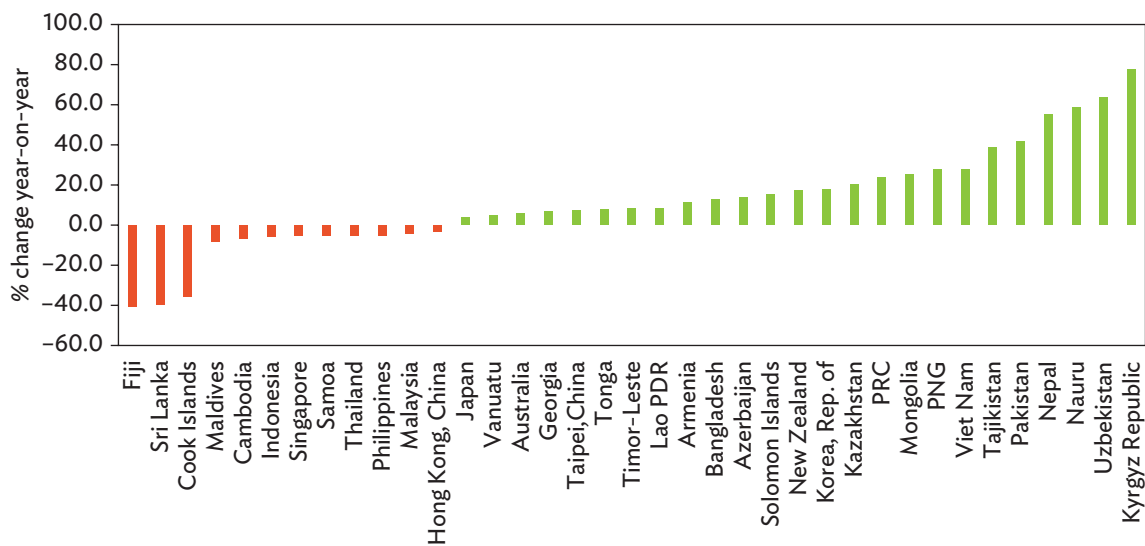
FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Sources: ISORA 2020, ISORA 2022.

The Tax Revenue Mix of the Taxes Administered

In general, there are many similarities in the range of taxes collected by participating revenue bodies across the economies of Asia and the Pacific. However, a deeper analysis of their respective contributions to overall revenue collections highlights considerable variation in the mix of taxes administered. This is likely to be reflected to varying degrees in the overall approaches to revenue administration. In this regard, Appendix Table A.6 sets out a categorization of the revenue types reported by revenue bodies according to their overall contribution to revenue collections, while Figure 2.4 depicts the mix in revenue shares (by revenue type) across the region.

Income taxes dominate the revenues collected in around 40% of revenue bodies while, based on the data reported, the collection of VAT and excises appears to be significant (i.e., over 50%) in just under one-fourth of the economies. However, complicating this analysis is the fact that, for over one-fourth of surveyed revenue bodies, the category "other taxes" exceeds 20% of total revenue collections. Other taxes can include property taxes; taxes on goods and services (other than VAT or excise); and taxes on motor vehicles, wealth, and inheritance. There are also a few economies (e.g., Palau and Samoa) where the "other taxes" category reported in ISORA appears to include some income taxes (e.g., withholding taxes).

Figure 2.4: Revenue Collections by Revenue Type, FY2021
(% of total)
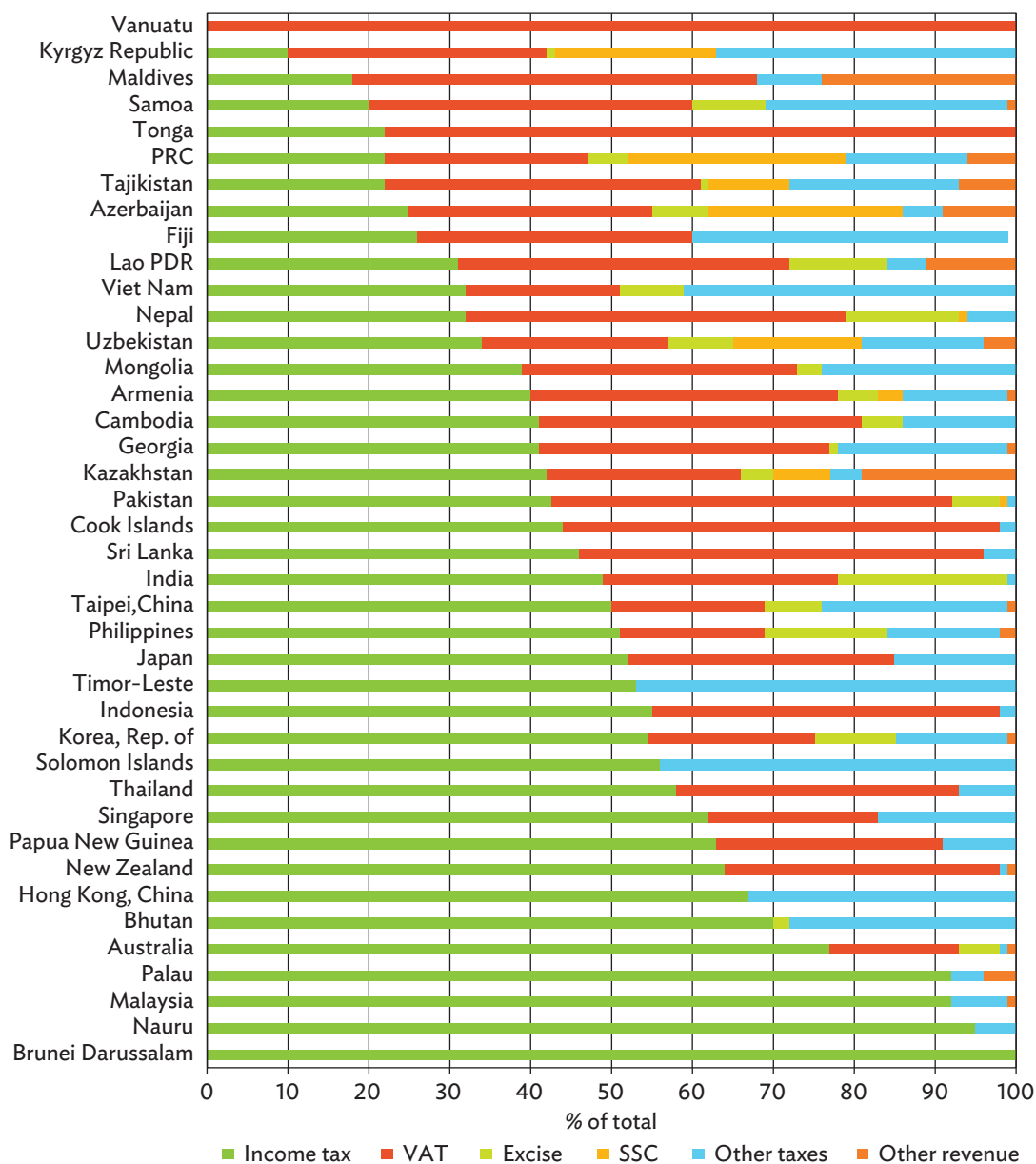
FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China, SSCs = social security contributions, VAT = value-added tax.
Source: ISORA 2021.

Tax Revenue Contribution of the Taxes Collected by the Revenue Body

The relative significance of the role participating revenue bodies play in collecting government taxes can also be viewed in terms of the total amount of taxes (including SSC where applicable) they collect as a share of overall government tax collections. Figure 2.5 contrasts the amounts of total tax collected by participating revenue bodies for FY2020 and FY2021 with the corresponding amount of each economy's total tax collections for all levels of government (Appendix Table A.9a). With the exception of those participating revenue bodies that are also responsible for customs administrations,[12] Figure 2.5 provides an indication of the degree of reliance placed by governments on their respective national revenue body for total government tax collections.

Figure 2.5: Revenue Body Tax Collections, Fiscal Years 2020 and 2021
(% of all taxes)

FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Notes: Figure does not include Hong Kong, China; India; or Palau as relevant data could not be located for both fiscal years.
Sources: ISORA 2021; ISORA 2022; OECD Global Tax Database; IMF Government Finance Statistics.

As will be apparent, the proportion of taxes collected by participating revenue bodies varies enormously, ranging from a low of around 10% to well over 90% for some economies.[13] While not researched in depth, there are several factors that explain this wide variation between economies:

- Relatively high ratios are seen in economies where there is a highly centralized and integrated model of revenue administration in place that typically sees the main revenue body collecting all direct and indirect taxes (including excises), along with SSC where such regimes are in place.
- Conversely, in economies where the proportion of taxes that the revenue body collects is relatively low, the main contributing factors are typically a combination of the following:

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[12]   The 11 economies displayed in Figure 2.5 that are also responsible for customs administration are Armenia, Bangladesh, Bhutan, the Cook Islands, Fiji, Georgia, India, Kazakhstan, Samoa, Tonga, and Vanuatu (Appendix A.1).
[13]   There are several economies where the computed ratio exceeds 100% for one or both fiscal years. The precise reasons for this have not been identified but this apparent error may have resulted from the misclassification of some nontax revenue as "tax revenue" for the years concerned.

– Responsibility for the administration of excise duties rests with the (separate) customs administration body.

– Where social security regimes are in place, a separate social security body performs all aspects of their administration (including collection and enforcement).

– Institutional setups separate the administration of direct and indirect taxes.

– Significant tax collection responsibilities are allocated to subnational governments.

Based on the data reported in this and prior editions of this series, opportunities for increased integration of government revenue collection would appear to exist for some economies. Over recent years, and as highlighted in previous editions of this series, a few governments in Asia and the Pacific have chosen to introduce reforms along these lines by integrating the collection of tax and SSC (e.g., Azerbaijan [FY2018] and the Kyrgyz Republic [FY2019]).

Reliance on Withholding at Source to Collect Personal Income Tax

Withholding at source arrangements have long been regarded as the cornerstone of an effective income tax system. Imposing the obligation on independent third parties such as employers and financial institutions to withhold an amount of tax from payments of income to taxpayers significantly reduces the opportunities for noncompliance. Furthermore, it is clearly a more efficient way for governments to collect taxes. Published tax compliance research findings from around the world provide strong evidence of the substantial compliance benefits of withholding mechanisms that are properly enforced (Chapter 5).

ISORA seeks data from revenue bodies on the proportion of the personal income tax (PIT) that is collected using tax withholding at source by parties (e.g., by employers and financial institutions) that have an obligation to withhold tax and remit it periodically to the revenue body. The data reported by revenue bodies highlight several important issues while also raising several potential issues of concern.

In brief, the use of withholding at source to collect PIT is just about universal across economies in the region that impose an income tax on individuals (Appendix Table 3 Part 2). Only Hong Kong, China and Singapore do not generally use withholding at source as a method of tax collection. In the absence of withholding at source arrangements, taxpayers in these two economies are generally required to make advance payments of tax via installments, while their incomes are subject to third-party reporting obligations (e.g., by banks, financial institutions, and public companies).

Estimates of the share of PIT collected via withholding arrangements vary significantly, with several revenue bodies— the Lao PDR, Nepal, Papua New Guinea, and Sri Lanka—reporting shares below 30% while many others reported shares more than 80% (Appendix Table A.7). Accepting that the data are correctly reported, relatively low rates of withholding may be indicative of several factors (e.g., policy design choices that limit the scope of withholding, weak enforcement of withholding provisions). Should this be the case, in some economies the potential could exist to mobilize additional revenue from initiatives involving policy design and/or more robust enforcement of existing withholding provisions.

Over 25% of revenue bodies that administer PIT did not report any data, suggesting a possible lack of awareness of the role played by the income tax withholding mechanism as a means of effective tax collection.

E. Overall Tax Collections (All Levels of Government)

The final section of this chapter provides a snapshot of total taxes collected in FY2021 on a whole-of-economy basis, presented in terms of tax ratios and their composition. These data are sourced from the OECD's Global Tax Database and the IMF's Government Finance Statistics. The revenue data reported in ISORA are a subset of this whole-of-economy reporting. Data collected on tax ratios and their composition are set out in Appendix Table 9 Parts 1 and 2. For detailed analysis and explanation of these matters, readers are referred to OECD's *Revenue Statistics in Asia and the Pacific* 2023 released in July 2023.

From the data presented in this report, which are drawn from a larger population of economies within Asia and the Pacific, important observations are as follows:

Tax Ratios

- Tax ratios for FY2021 varied enormously, ranging from 5.4% in Brunei Darussalam to over 33% in Japan and New Zealand. This wide range of tax ratios reflects inclusion in the report of a diverse mix of economies from across Asia and the Pacific: a few high-income/OECD economies, some large and rapidly growing developing economies (such as India, the PRC, and Viet Nam), and several newly emerging economies.
- For FY2021, the tax ratio exceeded 30% in two economies (New Zealand and Japan) but was below 15%—widely considered by international bodies to be the minimum level required for sustainable development—in 12 of the 41 economies included.
- Economies with low tax effort were concentrated in South Asia and Southeast Asia. Significantly, this group included three heavily populated economies (Bangladesh, Indonesia, and Pakistan), with a combined citizen population of over 660 million in 2021.
- Over FYs 2018–2021, the average tax ratio fluctuated within a fairly narrow band (18.6%–19.8%), impacted by the pandemic in FY2020 but rebounding fairly quickly for many economies in FY2021.

Tax Structures

- Taxes on consumption (e.g., VAT and sales taxes, and excises) were dominant within the region in FY2021, representing, on average, 46% of total tax collections. Significantly, there was considerable divergence in the degree of reliance on such taxes, with shares ranging from below 15% (Timor-Leste) to extraordinarily high, exceeding 90% (Vanuatu). Other economies with an unusually high degree of reliance (over 65%) on consumption taxes were the Lao PDR, Maldives, Samoa, and Solomon Islands.
- Taxes on income and profits (both individuals and corporates) were also significant, at 39% of total tax collection in FY2021. This was marginally above the average of OECD economies—34.3%—although this observation must be read in conjunction with the observations on the revenue derived by individual economies from SSC regimes.
- Revenue from regimes of SSC was either absent or an insignificant contributor to government revenue in many economies across the region, averaging just under 9% of total revenue collection for FY2021, in stark contrast to the share observed across OECD economies of over 25%. Furthermore, revenue from SSC was heavily concentrated in just eight of the 41 economies included in this report: Azerbaijan; Japan; the Kyrgyz Republic; Mongolia; the PRC; the ROK; Taipei,China; and Uzbekistan.

Important Developments and Issues in National Tax Administration

Key Messages

- With the need to rebuild tax collection performance in most economies following the COVID-19 pandemic, reinvigorating domestic resource mobilization efforts will continue to be a very high priority across the region over the short to medium term.
- Several economies in the region are closely following the advice of international bodies, adopting a holistic approach and framing reforms to their tax systems by way of a medium-term revenue strategy.
- Efforts to curb international tax avoidance and evasion continue to be in focus for most, but not all, economies with the imminent implementation of the Two Pillar solution and the continuation of the work of the Global Forum to fully implement the international standard for the automatic exchange of information in respect of nonresidents' financial accounts.
- Increasingly, jurisdictions across the region have implemented, or announced their intention to implement, changes to their VAT regimes to levy and collect VAT from digital platforms and other vendors in respect of their cross-border business-to-consumer sales. Several economies (Australia, Indonesia, and Thailand) have reported promising amounts of tax revenue from their respective initiatives.
- Interest is growing in the use of tax gap research methods, as an increasing number of revenue bodies seek to better understand the scale and nature of their tax compliance risks.
- Analyses of completed Tax Administration Diagnostic Assessment Tool (TADAT) assessments for revenue bodies in the region point to four areas where there are pervasive systemic weaknesses in tax administration: (i) efficient revenue management, (ii) accurate reporting in declarations, (iii) timely filing of declarations, and (iv) effective risk management.

A. Medium-Term Revenue Strategies

As economies across the world focus on post COVID-19 recovery, many jurisdictions are again turning their attention toward reinvigorating revenue mobilization efforts and developing new revenue mobilization initiatives. International agencies generally agree that revenue mobilization initiatives are best supported by a systematic and holistic approach to strategy development and implementation, with the strategies developed in a way that helps garner wide political and community support. The consensus is that jurisdictions should adopt a medium- to long-term horizon and focus on building sustainable revenue systems for the future. The Platform

for Collaboration on Tax (PCT)[14] encourages jurisdictions to frame reforms to tax systems by way of a medium-term revenue strategy (MTRS), as this disciplined approach supports the adoption of a holistic approach, including strengthening the connection between expenditure and revenue needs.[15] Prior editions of this series have outlined the MTRS approach promoted by the PCT and the role of ADB's Asia Pacific Tax Hub in supporting members' revenue mobilization efforts.

Medium-Term Revenue Strategies in Asia and the Pacific

ADB's regional hub on domestic resource mobilization and international tax cooperation, the Asia Pacific Tax Hub, which was launched in 2021, has been actively involved with the IMF and others in supporting ADB members in developing approaches to strengthen domestic resource mobilization, including in the preparation of MTRS.

Revenue mobilization is clearly a major concern across Asia and the Pacific, and several economies in the region are increasing their focus on this important issue. A few economies, including Bangladesh, Pakistan, and Papua New Guinea, continued to focus on progressing implementation of their MTRS. Bangladesh and Pakistan finalized their MTRS during 2021 and 2022 and are now implementing. Papua New Guinea was an early adopter of the MTRS, having commenced implementation in 2016. With the conclusion of its first MTRS in 2022, Papua New Guinea is now developing its second. Maldives (Box 3.1) and Sri Lanka recently initiated work on their MTRS, supported by the IMF and ADB. Others, such as Malaysia, suspended work on their MTRS while dealing with the social and economic impacts of the pandemic. Some economies have followed MTRS disciplines in developing their revenue mobilization strategies while not adopting a formal MTRS approach (Indonesia, Thailand, and Viet Nam).

The Maldives Inland Revenue Authority recently initiated work, supported by the IMF and ADB and other development partners, to develop an MTRS. Box 3.1 summarizes the approaches adopted.

Box 3.1: Maldives Approach to Developing a Medium-Term Revenue Strategy

Current state assessment. An assessment using the Tax Administration Diagnostic Assessment Tool—a TADAT assessment—was completed with the assistance of the International Monetary Fund (IMF) and the Asian Development Bank (ADB). Initial planning workshops with the Maldives Inland Revenue Authority and the Ministry of Finance officials discussed and established the MTRS development plan. The workshop was supported by development partner experts in public financial management, expenditure policy, tax policy, and tax and customs administration. A medium-term revenue strategy (MTRS) familiarization workshop facilitated by the IMF/ADB team, including representatives from various government agencies, was held in preparation for a multidisciplinary MTRS formulation mission.

MTRS formulation. The definition of the MTRS road map and action plan was supported by an in-country joint IMF/ADB mission, including experts in tax policy, tax and customs administration, revenue analysis, and legislative drafting. Outcomes of this mission included (i) a draft MTRS road map, (ii) a series of action plans to further develop and implement MTRS objectives, and (iii) an MTRS 2023–2028 formulation timeline. While the MTRS is still in the formulation stage, early signs indicate good progress has been made and ongoing support will be provided by development partners.

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[14]   The PCT is a joint initiative of the IMF, the OECD, the United Nations, and the World Bank Group to strengthen collaboration on domestic resource mobilization.
[15]   PCT. What Is the MTRS?

Box 3.1 continued

Key features of the MTRS

- Proposed MTRS policy initiatives include:
    - implementing policy shifts to reduce the heavy reliance on customs duties;
    - implementation of a broad-based goods and services tax;
    - correcting externalities in the excise regime and introduction of an excise act;
    - improving progressivity by introducing income tax and property tax reforms;
    - repeal of the Special Economic Zones Act.
- Proposed tax and customs administration initiatives (informed by the TADAT) include:
    - strengthening data analytics, data management, and compliance risk management;
    - risk-based approaches for post-clearance audits (Customs);
    - better management of e-commerce business models.

Source: PCT. 2022. *PCT Progress Report.* Paris: PCT.

B. Combating International Tax Avoidance and Evasion

Prior editions of this series drew attention to global collaborative initiatives underway to counter international tax avoidance and evasion. These included the development of measures to address base erosion and profit-shifting (BEPS) and the work of the Global Forum on Transparency and Exchange of Information for Tax Purposes (GF) and the Convention on Mutual Administrative Assistance in Tax Matters. Together, these efforts continue to constitute the main strategic elements of global efforts to prevent, detect, and combat international tax avoidance and evasion, corruption, money laundering, and other related financial crimes. The following sections provide a brief update on developments concerning these initiatives and future challenges.

Measures to Address Base Erosion and Profit-Shifting

Work of the Inclusive Framework

The OECD/Group of Twenty (G20) Inclusive Framework on BEPS is a joint initiative of the OECD and the G20 to provide a platform to enable all interested parties to participate in the development and implementation of the BEPS project recommendations and in ongoing related activities. The Inclusive Framework includes over 140 jurisdictions and has been closely involved in helping reshape international tax rules to meet the challenges of the future. Recent work of the Inclusive Framework has focused on developing the Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalization of the Economy, which was endorsed in October 2021.[16] At the time of writing, 138 jurisdictions had joined the Two Pillar agreement, which is considered a milestone in the development of work under BEPS Action 1 "Addressing the tax challenges arising from the digital economy,"[17] which has been the top priority of the OECD/G20 Inclusive Framework.

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[16]   OECD. 2021. Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy. OECD/
        G20 Inclusive Framework on BEPS. Paris: OECD.
[17]   OECD BEPS. Action 1: Tax Challenges Arising from Digitalisation.

Following the October 2021 agreement, the Inclusive Framework shifted its focus to the implementation of the two-pillar solution. Work on Pillar One has focused on public consultation, including on the rules required for the implementation of the reallocation of taxing rights under Amount A.[18] Amount A operates to allocate a taxing right over a portion of the profit of multinational enterprises (MNEs) to the market jurisdictions. The scope rules will operate to determine whether an MNE is caught by the rules relating to Amount A. These rules will limit the application of Amount A to large and highly profitable enterprises and will apply at the group level. The design of the new rules will have a long-term impact on the international taxation landscape, so the Inclusive Framework has resolved that the work on the Multilateral Convention to implement Amount A and the Explanatory Statement should not be rushed. The current aim is to ratify an agreement in the first half of 2023, and for the agreement to come into effect in 2024. On Pillar Two, following the release of the Global Anti-Base Erosion Model Rules for the minimum tax in December 2021, the Inclusive Framework has commenced implementing the rules, including the development of a standardized information reporting and exchange mechanism to reduce compliance and administrative burden.

The Inclusive Framework has continued to make progress on the implementation of the four BEPS minimum standards:[19]

- **Action 5 (Harmful Tax Practices).** To date, there have been over 300 Action 5 peer reviews of preferential regimes, 12 reviews of no tax or low tax jurisdictions, and 131 exchange of information on tax ruling peer reviews. Over 41,000 exchanges of information on tax rulings have occurred.
- **Action 6 (Tax Treaty Abuse).** The level of compliance was reported in March 2022 to have more than doubled since the previous assessment, with most tax treaties between the Inclusive Framework members expected to be compliant in the near future. Many Inclusive Framework members rely on the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (MLI) to implement Action 6. At the time of writing, 100 jurisdictions have signed the MLI.
- **Action 13 (Country-by-Country [CbC] Reporting).** The implementation of CbC reporting has progressed well, with more jurisdictions introducing domestic legislation to support this, and those with existing legislation implementing the mechanisms to support exchanges. Over 80 jurisdictions have been assessed as having processes in place to ensure the appropriate use of CbC reports. It is noted that developing countries continue to encounter challenges in meeting the CbC requirements.
- **Action 14 (Mutual Agreement Procedure).** Action 14 focuses on ensuring that tax disputes are resolved quickly and efficiently. Over 80 jurisdictions have been peer reviewed under the two-stage approach.

Work of the Global Forum on Transparency and Exchange of Information for Tax Purposes

The GF, established in 2009, focuses on tax evasion facilitated by bank secrecy[20] and is continuing its work on the implementation of a range of global transparency and exchange of information (EOI) standards, in particular the exchange of information on request (EOIR), and the automatic exchange of financial account information (AEOI), applying what is known as the Common Reporting Standard (CRS). Jurisdictions choosing to join the GF, which numbered 167 economies as of April 2023,[21] agree to redesign domestic legal frameworks and

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18   OECD. 2022. Progress Report on Amount A of Pillar One, Two-Pillar Solution to the Tax Challenges of the Digitalisation of the Economy. OECD/G20 Base Erosion and Profit Shifting Project. Paris: OECD.
19   OECD. 2022. OECD/G20 Inclusive Framework on BEPS Progress Report. September 2021 – September 2022. Paris: OECD.
20   Global Forum on Transparency and Exchange of Information for Tax Purposes (accessed 17 April 2023).
21   Most economies participating in ISORA and included in this series are members of the GF; as of April 2023, only Bangladesh, Bhutan, Fiji, the Kyrgyz Republic, Nepal, Solomon Islands, Sri Lanka, Tajikistan, Timor-Leste, and Tonga were yet to join.

administration, including signing and ratifying certain international and multilateral instruments to provide the legal framework to support their obligations to collect and exchange information.

The international EOIR standard allows revenue bodies to seek a particular piece of information to progress a tax investigation. The international AEOI standard requires jurisdictions to collect and automatically share a defined set of information on financial accounts held by nonresidents each year. These exchanges require that the receiving jurisdictions keep the exchanged information confidential and put in place safeguards; obligations are imposed on jurisdictions to ensure this occurs. Compliance with these standards is monitored, and peer reviews are conducted to ensure effective implementation.

Convention on Mutual Administrative Assistance in Tax Matters

The Convention on Mutual Administrative Assistance in Tax Matters was developed jointly by the OECD and the Council of Europe to provide a single comprehensive legal basis for cross-border cooperation.[22] It is a multilateral instrument to address all forms of tax cooperation. The Convention is intended to provide the necessary agreements to support tackling both tax avoidance and tax evasion. It covers all matters relating to administrative cooperation between jurisdictions in the assessment and collection of taxes, and contains provisions relating to exchange of information, including automatic exchanges, and relating to cross-jurisdictional recovery of taxes. As of 22 March 2023, 147 economies were participating in the Convention.

As indicated in Table 3.1, 28 of the 41 ISORA participating economies from Asia and the Pacific featured in this series are signatories to the Convention. Maldives, Papua New Guinea, and Viet Nam are all recent signatories to the amended convention, with the latter two economies' signatures awaiting ratification as of March 2023.

Progress with Exchange of Information

Progress with Exchange of Information at Large

The GF's annual report for 2022, entitled *Raising the Bar on Tax Transparency*,[23] provides a detailed assessment of the progress being made with the global initiatives to enhance transparency and EOI standards.

Concerning AEOI, the report indicated for 2021 that over 100 jurisdictions exchanged information on 111 million financial accounts, with a total value of €11 trillion. Significantly, there has been a profound shift in the scale of automatic exchanges, with exchanges in 2021 representing an increase of 32% in the number of accounts and of 10% in the total value of assets covered compared with 2019, the first year of comprehensive exchange. Another 10 jurisdictions are expected to commence exchanges in the coming years. Additionally, the GF released its first assessment of the effectiveness of AEOI in 2022. Among other things, the assessment indicated that two-thirds of AEOI jurisdictions were on track, and a further 15 jurisdictions had comprehensive plans in place to ensure the effective implementation of AEOI standards in practice.

The GF's report also provides indications of the significant tax revenues resulting from AEOI and the increased transparency resulting from the removal of bank secrecy in many jurisdictions (Box 3.2).

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[22]   Convention on Mutual Administrative Assistance in Tax Matters (accessed 17 April 2023).
[23]   OECD. 2022. Raising the Bar on Tax Transparency: *2022 Global Forum Annual Report*. Paris: OECD.

Box 3.2: Revenue and Other Impacts of Automatic Exchanges of Information

- Over 25,000 requests for information were sent in 2021 to support ongoing tax investigations.
- More than €114 billion of additional revenues (tax, interests, penalties) have been identified so far, resulting from voluntary disclosure programs and offshore tax investigations, with over €30 billion identified by developing countries.
- In the period 2019–2021, almost €2.6 billion was identified as a result of EOIR, almost €2.4 billion from AEOI, and over €2.5 billion from voluntary disclosure programs and other offshore initiatives.
- Over 40 jurisdictions have granted authorization under their tax treaties to use tax information for other purposes, such as money laundering, corruption, and bribery.

AEOI = automatic exchange of intormation, EOIR = exchange of information on request.
Source: OECD. 2022. Raising the Bar on Tax Transparency: 2022 Global Forum Annual Report. page 3. Paris: OECD.

Table 3.1: Global Engagement—Countering International Tax Avoidance and Evasion through Exchange of Information and Other Mutual Assistance Efforts

| Region/Economy | Member of Global Forum (April 2023) | Year Committed to First Exchange | Exchanges of Information: Use of Common Reporting Standard | | | Convention on Mutual Assistance (status) |
| | | | Number of Receiving Partners for FY Data Provided (9 November 2022) | | | |
			FY2019	FY2020	FY2021	
Central and West Asia						
Armenia	✓	2025	—	—	—	In force
Azerbaijan	✓	2018	48	67	74	In force
Georgia	✓	2023	—	—	—	In force
Kazakhstan	✓	2021	—	—	57	In force
Kyrgyz Republic	X	—	—	—	—	Not a signatory
Pakistan	✓	2018	57	61	55	In force
Tajikistan	X	—	—	—	—	Not a signatory
Uzbekistan	✓	NC	—	—	—	Not a signatory
East Asia						
China, People's Republic of	✓	2018	69	75	76	In force
Hong Kong, China	✓	2018	50	68	71	In force
Japan	✓	2018	70	75	77	In force
Korea, Rep. of	✓	2017	70	74	76	In force
Mongolia	✓	2026	—	—	—	In force
Taipei,China	X	2020	2	3	3	Not a signatory
Pacific						
Australia	✓	2018	70	72	76	In force
Cook Islands	✓	2018	68	68	72	In force
Fiji	X	—	—	—	—	Not a signatory
Nauru[a]	✓	2018	0	0	0	In force
New Zealand	✓	2018	68	73	77	In force
Palau	✓	2023	—	—	—	Not a signatory

Table 3.1 continued

Region/Economy	Member of Global Forum (April 2023)	Exchanges of Information: Use of Common Reporting Standard				Convention on Mutual Assistance (status)
		Year Committed to First Exchange	Number of Receiving Partners for FY Data Provided (9 November 2022)			
			FY2019	FY2020	FY2021	
Papua New Guinea	✓	NC	—	—	—	Signed
Samoa	✓	2018	64	66	63	In force
Solomon Islands	X	—	—	—	—	Not a signatory
Tonga	X	—	—	—	—	Not a signatory
Vanuatu	✓	2018	53	53	61	In force
South Asia						
Bangladesh	X	—	—	—	—	Not a signatory
Bhutan	X	—	—	—	—	Not a signatory
India	✓	2017	68	74	77	In force
Maldives	✓	2020	—	—	35	In force
Nepal	X	—	—	—	—	Not a signatory
Sri Lanka	X	—	—	—	—	Not a signatory
Southeast Asia						
Brunei Darussalam	✓	2018	33	41	61	In force
Cambodia	✓	NC	—	—	—	Not a signatory
Indonesia	✓	2018	69	72	77	In force
Lao PDR	X	—	—	—	—	Not a signatory
Malaysia	✓	2018	65	69	73	In force
Philippines	✓	NC	—	—	—	Signed
Singapore	✓	2018	66	70	76	In force
Thailand	✓	2023	—	—	—	In force
Timor-Leste	X	—	—	—	—	Not a signatory
Viet Nam	✓	NC	—	—	—	Signed

— = Not applicable, ✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, NC = not committed to a specific date.
ᵃ There are no reporting financial institutions in this jurisdiction.
Sources: ISORA 2022; OECD. 2022. *Raising the Bar on Tax Transparency: 2022 Global Forum Annual Report*. Paris: OECD; Convention on Mutual Administrative Assistance in Tax Matters (accessed 17 April 2023).

Progress with Exchange of Information in Asia and the Pacific

As apparent from the data in Table 3.1, GF membership by economies in Asia and the Pacific accounts for 29 of the 41 ISORA participating economies, representing around 70%, compared with around 85% (167 out of 195) of all jurisdictions reported by the OECD. Over the past 2 years, there has been a range of measures launched to bolster the use of EOI by revenue bodies in economies across Asia and the Pacific, the most significant of which has been the Asia Initiative.[24] Other important activities included the following:

• Mongolia committed to start AEOI of financial account data by 2026 (April 2023).
• Viet Nam joined the Convention on Mutual Administrative Assistance in Tax Matters (March 2023).

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[24]   The Asia Initiative was launched in November 2021 as a platform to coordinate a capacity-building program on tax transparency among partner economies. The Initiative is focused on setting tailored solutions to ensure the implementation of tax transparency standards across Asia. For further information, refer to The Asia Initiative.

- The initial 2023 Asia Initiative training on EOI was delivered at a seminar held in India to tax officials from Armenia, India, Indonesia, Malaysia, Maldives, and Thailand (March 2023).
- Armenia committed to start AEOI of financial account data by 2025 (February 2023).
- The Philippines became the 17th member of the GF Asia Initiative (February 2023).
- Delegates (225 in number) from Asian members of the GF attended the virtual workshop on the effective use of the CRS and EOIR, as part of the Asia Initiative (October 2022).
- GF membership was expanded to include Uzbekistan (May 2022).

Table 3.1 also provides an indication of the extent of AEOI exchanges of financial data by "donor" revenue bodies; for FY2021, AEOI exchanges were typically made to between 60 and 80 partner revenue bodies. There has been a consistent year-on-year increase in the number of exchanges by all participating revenue bodies since their introduction.

The receipt of AEOI financial data provides a range of potential benefits for revenue bodies, including the detection of concealed income, and facilitating the collection of outstanding taxes. Box 3.3 sets out the recent experience of Malaysia's revenue body.

Box 3.3: Practical Use of Automatic Exchanges of Information—Malaysia

Following the implementation of the new AEOI arrangements in 2018, Malaysia's IRBM established a CRS Taskforce to manage the large volumes of work expected. In 2022, AEOI reporting was received from 100 jurisdictions, involving almost 2.5 million banking accounts of Malaysian residents, with a total value of €160 billion. In practice, IRBM uses the data in a variety of ways: (i) *compliance activities*—risk assessment and case selection for audit, verification of audit issues for ongoing cases, and assessing the integrity of taxpayers during interviews; (ii) *profiling and intelligence*—data matching and taxpayer identification; and (iii) *collection of taxes*—assessing taxpayers' capacity to pay.

Over the period 2019–2021, the CRS completed the profiling of 5,236 cases, while 4,633 taxpayers were subject to audit action. Total tax collected from audits was just under RM350 million (around €72 million).

AEOI = automatic exchange information, CRS = Common Reporting Standard, IRBM = Inland Revenue Board of Malaysia.
Source: E. Koisin. 2023. Practical Use of Common Reporting Standard Information–Malaysia's Experience. Presentation at ADB's Innovative Tax Administration: A Strategic Workshop, Tokyo. 27–29 March.

C. Collecting VAT on Cross-Border Trade in Digital Services and Products

As the fifth edition of this series highlighted, the increasing digitalization of the economy at a global level has fundamentally changed the nature of retail distribution channels for sales of goods and services and intangibles to private consumers (business-to-consumer [B2C] sales). These developments have created challenges for the collection of sales taxes, especially VAT systems (also known as GSTs), particularly where products are acquired by private consumers from nonresident foreign suppliers. In response to these developments, the OECD released the *International VAT/GST Guidelines in 2016*. These set forth internationally agreed principles and standards for the VAT treatment of the most common types of international transactions, with a particular focus on trade in services and intangibles. The guidelines have particular relevance for economies in Asia and the Pacific, given its sheer size and growth in trade and digital transactions, not to mention the fact that VAT is a major revenue source for most jurisdictions in region, representing over one-fifth of the region's total tax revenues on average.

In 2022, ADB in collaboration with the OECD and the World Bank released a comprehensive set of practical guidance for economies in Asia and the Pacific to assist reform efforts targeting the collection of VAT revenues on cross-border trade in digital services and products (Box 3.4).

Box 3.4: VAT Digital Toolkit for Asia and the Pacific

Key features

- The publication contains detailed guidance to implement an effective strategy for applying VAT to international digital trade.
- It is based on OECD guidelines endorsed by the 2019 Global Forum on VAT.
- It represents a World Bank and OECD framework to deliver regionally customized reports for Latin America and the Caribbean, Asia and the Pacific, and Africa.
- ADB co-partnered to produce reports for Asia and the Pacific, providing strategic leadership and regional knowledge on the tax landscape.
- World-leading experts on VAT policy and revenue administration participated.
- Wide consultations were held with country officials and representatives from leading corporations and business organizations.

Making VAT Digital work

- ✓ policy framework
- ✓ operational implementation
- ✓ compliance/enforcement
- ✓ road map for reform

ADB = Asian Development Bank, OECD = Organisation for Economic Co-operation and Development, VAT = value-added tax.
Source: D. Alvarez. 2023. Digitalization of the Economy: Focus on VAT/GST. Presentation at ADB's Innovative Tax Administration: A Strategic Workshop, Tokyo, 27–29 March.

Since the release of the OECD guidelines, economies across the region have implemented reforms to have VAT applied to specified cross-border trade in digital services and products. While many economies are still in the early stages of their reforms, reports from several point to the significant amounts of revenue collected and the potential for others that are yet to implement similar reforms (Figure 3.1).

Figure 3.1: Revenue Collections from Taxing Cross-Border Trade in Digital Products

AUSTRALIA	INDONESIA	NEW ZEALAND
A$1.75 BILLION (nearly $1.2 billion) in the first 4 years	Rp5.03 TRILLION ($337 million) in 19 months up to end-2022	NZ$1.25 BILLION (nearly $796 million) since Implementation
650 nonresident registrants	98 nonresident registrants	No. of registrants not known

TAIPEI,CHINA	THAILAND	EUROPEAN UNION
$835 MILLION (May 2017 to December 2022)	B7.05 BILLION ($205 million) in 2022	€ 26.97 BILLION (nearly $32 billion) in 6 years
145 nonresident registrants	147 nonresident registrants	No. of registrants not known

Sources: Presentations by officials at ADB's Innovative Tax Administration: A Strategic Workshop, Tokyo, 27–29 March 2023; internal ADB research report.

Other jurisdictions in Asia and the Pacific that have put in place VAT laws that apply to nonresident digital supplies include Azerbaijan, Bangladesh, Cambodia, Georgia, India, Japan, the Lao PDR, Malaysia, the ROK, Singapore, Tajikistan, Thailand, Uzbekistan, and Viet Nam. As of early 2023, Bhutan, Kazakhstan, and the Philippines were developing laws and information technology systems for implementation of VAT on nonresident supplies of digital services.

D. Understanding Tax Noncompliance—The Growing Use of Tax Gap Research

Over the past 10–15 years, interest has grown around the world in the use of tax gap research methods and their findings. This heightened level of interest appears to have been fueled by several factors, including

- the increasing adoption by revenue bodies of modern risk management techniques for the mitigation of tax compliance risks;
- the "pioneering" work of several revenue bodies and others active in their use of tax gap research methods (e.g., His Majesty's Revenue and Customs (HMRC) in the United Kingdom, and the European Commission);
- the availability of technical assistance support from the IMF on tax gap research and its publication of tax gap-related methodological materials for the major taxes.[25]

The following sections explore the concept of a "tax gap," how tax gaps are researched, the rationale of selected revenue bodies for undertaking tax gap research, and indications of its use.

What Are Tax Gaps?

As generally described in tax administration-related literature and understood by tax officials, a tax gap— sometimes referred to as a "compliance gap"—is an estimate of the difference between the amount of tax revenue actually collected for a tax for a fiscal year and the amount that would have been collected with perfect compliance (i.e., potential collections).[26] Tax gaps are typically estimated on a "tax-by-tax" and "fiscal year" basis, and the results are sometimes aggregated to give a "total tax gap" amount for a tax system. Tax gap research findings are most valuable when the methodologies adopted involve decomposition of the overall gap into the main areas of compliance risk (Figure 3.2 sets out one revenue body's example). For taxes such as the personal and corporate income taxes, where "bottom–up approaches" are sometimes adopted (see later comments), tax gaps can be developed and examined by taxpayer segments (e.g., large, medium, and small businesses) to provide further levels of granularity to the aggregate gap and its characteristics.

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[25]   The Revenue Administration Gap Analysis Program (RA-GAP) is an IMF technical assistance service that assists revenue bodies in monitoring taxpayer compliance through tax gap analysis. RA-GAP measures potential tax revenues, evaluates actual revenues, and analyzes the factors causing gaps between them. For further details, see IMF. Tax and Customs Administration.

[26]   The IMF takes a more holistic tax system view of the tax gap, observing in a 2013 report: *"it is important to recognize that it provides only a partial account of the factors that affect revenue performance. A more holistic approach would include the two major factors: (i) the effects of compliance (or noncompliance); and (ii) the effects of policy choices that lead to reduced revenues."* The IMF refers to the impact of compliance issues on revenue as "the compliance gap" and the revenue loss attributable to provisions in tax laws that allow an exemption, a special credit, a preferential rate of tax, or a deferral of tax liability as the "policy gap" (IMF. 2013. United Kingdom: Technical Assistance Report—Assessment of HMRC's Tax Gap Analysis. Washington, DC: IMF).

Figure 3.2: Tax Gap Concepts

Policy gap (not estimated)

Non-detection (F)

Unreported amounts (E)

Non-pursuable amounts (D)

Amendments owing to compliance activities and voluntary disclosures (A)

Amounts voluntarily reported and paid (V)

Net tax gap (N)

Gross tax gap (G)

Theoretical liability (T)

Amounts paid (P)

Amounts reported (R)

Where

Gross tax gap (G) = Theoretical liability (T) – Amounts of liability reported (R)
Net tax gap (N) = Gross tax gap (G) – Value of amendments owing to compliance actions and voluntary disclosures (A)
Net tax gap (N) = Unreported amounts (F+E) + Assessed taxes never paid and deemed non-pursuable
Source: ATO. Tax Gap Framework (accessed 27 August 2023).

In practice, the richness of tax gap research findings depends on a range of factors, including the methodologies adopted, the accuracy and relevance of the underlying data sources used, and the availability of skilled analysts. However, a word of caution is warranted for both observers and users of tax gap research findings. By its very nature, tax gap estimation is an imprecise science and the various approaches and methodologies used in practice are subject to numerous qualifications and assumptions, while some underlying data may be subject to periodic revision (e.g., National Accounts), with implications for initial and subsequent gap estimates.

Why Are Tax Gaps Researched?

The emergence of tax gap research methods can be traced back to the 1970s and the pioneering work of the United States Internal Revenue Service. However, over subsequent decades there was fairly widespread resistance to their use from tax officials across most developed economies, owing to a variety of factors: (i) the use of "bottom–up" approaches involving random audits, especially for income taxes, was considered to be too costly and a compliance burden on innocent taxpayers; (ii) the methods available were considered unreliable and/or inaccurate and of limited value for operational purposes; and (iii) there was a concern that the findings of such research, if made public, could have a negative impact on overall tax compliance levels.

Over the past 2 decades, there has been a marked change in the attitudes of many tax officials, in all likelihood driven by government demands for increased accountability and transparency, not to mention improved revenue collection effectiveness (Box 3.5). At the same time, gap research methodologies have evolved considerably, in large part aided by advances in technology and the availability of new data sources for gap research.

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Box 3.5: The Rationale for Tax Gap Research—Selected Revenue Body Examples

Australian Taxation Office (ATO)

"Estimating tax gaps forms part of our broader accountability and transparency as a leading administrator (….). The community expects us to manage all aspects of the system, including advising on the tax gaps and what we are doing about them. As such, we measure and publish tax gaps where they are credible and reliable, to inject our perspective into the community debate. Tax gap estimates are also important for us to better understand levels of compliance and risk in the tax and superannuation systems. Insights gained from this work can guide us in determining priority risks and developing strategies, including administrative design, help and education, and audit strategies, which aim to sustainably reduce the tax gap."

HMRC United Kingdom

"The tax gap provides a useful tool for understanding the relative size and nature of noncompliance. This understanding can be applied in many different ways: (i) it provides a foundation for HMRC's strategy—thinking about the tax gap helps the department to understand how noncompliance occurs and how HMRC can address the causes and improve the overall health of the tax system; (ii) drawing on information on how other countries manage their tax gaps, our tax gap analysis provides insight into which strategies are most effective at reducing the tax gap; and (iii) though the tax gap isn't sufficiently timely or precise enough to set performance targets, it provides important information which helps us understand our long-term performance."

HMRC = His Majesty's Revenue and Customs.
Sources: ATO. Why We Measure the Tax Gap (accessed 25 January 2023); HMRC. Measuring Tax Gaps 2022 Edition: Tax Gap Estimates for 2020 to 2021 (accessed 15 April 2023).

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How Are Tax Gaps Researched?

Tax gap estimation methodologies and their use have evolved over many years and generally fall into two broad categories: (i) top–down (macro) approaches; and (ii) bottom–up approaches.

Top–down approaches typically rely on the existence of aggregate data that are compiled externally and independently of a revenue body, and that can be applied directly or indirectly to establish an estimate of the taxable base for a tax. Examples include official National Accounts aggregates of consumption expenditure and lifestyle surveys that provide usage benchmarks for estimating consumption expenditure (e.g., on alcohol and cigarettes). Top–down measures are used widely for indirect taxes.

Bottom–up approaches generally rely on data held within the revenue body. The more common examples are (i) the results of random audit-based inquiries; (ii) operational data (e.g., risk registers), sometimes for specific segments of taxpayers, adjusted to account for selection bias; and (iii) estimates constructed from available data and drawing on observations and experience of operational experts.

Within each category, a variety of estimating models and methodologies can be applied. In practice, use of the various approaches needs to be tailored to each tax examined and the approaches taken can vary between revenue bodies depending on a range of factors (e.g., who conducts the research, data availability, the expertise available, and the level of resource investment). Readers interested in gaining a deeper understanding of the methodologies being adopted across a broad mix of direct and indirect taxes may wish to reference the websites and publications of revenue bodies known to be undertaking comprehensive programs of gap research (e.g., the ATO, the Canada Revenue Agency, the United Kingdom's HMRC, and the United States Internal Revenue Service).

The Use of Tax Gap Research by National Revenue Bodies

Data on the use of tax gap research analysis methods were last gathered in ISORA 2019, examining practices in FY2017 (Table 3.2). Among other things, these revealed that around 30% of revenue bodies across Asia and the Pacific had completed gap research studies for some or all the major taxes, with VAT being the most common tax researched. However, the ISORA reporting indicated that few studies had been made public and provided no indication of the frequency of the research undertaken.

Table 3.2: The Use of Tax Gap Research Analysis in Revenue Administration, FY2017

| Comparative Series | No. of Revenue Bodies | Periodic Tax Gap Estimates by Tax Type | | | | | |
| | | Personal Income Tax | | Corporate Income Tax | | Value-Added Tax | |
		Produced	Published	Produced	Published	Produced	Published
OECD FTA	58	30	10	17	8	30	16
ADB	34	9	3	9	3	11	3

ADB = Asian Development Bank, OECD FTA = Organisation for Economic Co-operation and Development Forum on Tax Administration , FY = fiscal year.
Source: ISORA 2019.

Since ISORA 2019, there have been several further developments globally that indicate growing interest in this important field of research, including the following:[27]

(i)   Australia's revenue body now reports annually on its tax gap research for all taxes administered.
(ii)   The revenue bodies of Canada and Sweden now conduct regular gap research studies for their main taxes.
(iii) Pakistan's Federal Board of Revenue published its first tax gap report in 2022, covering all sales taxes, income taxes, and customs duties.
(iv)   Building on the success of its regular VAT gap research for all 28 European Union member states, the European Commission recently commenced exploring the potential for gap research of members' income tax and SSC regimes.
(v)   In early 2023, the OECD FTA established a "community of interest" to explore and report on the use of tax gap research methodologies by its member revenue bodies.

To date, interest in the use of tax gap research methods by revenue bodies in Asia and the Pacific appears, at best, patchy. However, in the face of growing and sustained demands for improvements in tax administration, it would seem inevitable that interest will grow and more revenue bodies will launch gap-related research initiatives to better understand the extent and nature of tax compliance for their major taxes. An update on the use of tax gap research by revenue bodies in ADB member economies is planned for ISORA 2023.

E. Improving Tax Administration Performance—The Use of TADAT Assessments

With many revenue bodies around the world under pressure to improve their performance, increasing numbers are taking steps to better understand the "health" of their tax administration setups and arrangements, and the potential for improvements. To this end, many have chosen over recent years to undergo a formal "diagnosis" using the Tax Administration Diagnostic Assessment Tool (TADAT).

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[27]   These observations are drawn from the author's (Richard Highfield) direct experience in the conduct of tax gap research, including as a member of the ATO's Tax Gap Expert Panel, which oversees the ATO gap research program.

What Is TADAT?

TADAT is a diagnostic tool developed by the IMF and international development partners, with technical input from a wide range of experts, to help make tax administration around the world more efficient and effective. The tool provides a standardized means of assessing the health of key components of the tax administration system and its level of maturity in the context of global good practice. TADAT assessments are particularly helpful in

(i)   identifying relative strengths and weaknesses in systems, processes, and institutions;
(ii)   creating a shared view on the condition of a revenue body's performance among stakeholders;
(iii)   setting a reform agenda (including reform objectives, priorities, initiatives, and implementation sequencing);
(iv)   facilitating coordination of external support for reforms and achieving an efficient implementation; and
(v)   monitoring and evaluating reform progress by way of repeat assessments.

TADAT assessments are typically undertaken at the request of a revenue body's management and carried out by independent assessors formally trained in applying the TADAT assessment framework and who have experience in national tax administration. At the end of the assessment phase, TADAT assessors make a formal assessment of the quality of administration across nine critical performance outcome areas that comprise the TADAT framework, applying 32 high-level indicators and 55 measured and scored dimensions. The end products are ratings for the outcome areas, which are discussed with a revenue body's management:

A = meets or exceeds good practice
B = sound practices in place
C = basic practices in place
D = good practices absent

Formal reports of TADAT assessments are provided to the management of revenue bodies, which, at their discretion, may authorize their publication. Further information on TADAT, including a comprehensive field guide, can be found at www.tadat.org

The Use of TADAT around the World and in Asia and the Pacific

After the formal introduction of TADAT in 2014, 150 TADAT assessments (including 38 at the subnational level) had been completed at a global level as of 31 March 2023, including 21 for economies in Asia and the Pacific (Table 3.3). Over the 4 years up to 31 March 2023, 43 TADAT assessments of national tax administrations had been completed globally, including 11 in Asia and the Pacific.

Table 3.3: Completed TADAT Assessments, Asia and the Pacific, March 2023

Regions	2014–2019	2020–2023 (March)
Central and West Asia	Armenia, Georgia, the Kyrgyz Republic, Tajikistan	Georgia, Kazakhstan, Pakistan
East Asia		Mongolia
Pacific	Fiji, Papua New Guinea	Tonga
South Asia	Bangladesh	Bhutan, Maldives, Nepal, Sri Lanka
Southeast Asia	Malaysia, the Philippines, Viet Nam	Cambodia, Indonesia *(upcoming)*

TADAT = Tax Administration Diagnostic Assessment Tool.
Source: www.tadat.org

What Do TADAT Assessments Reveal about Systemic Weaknesses in Administration and Tax Effort?

In addition to their potential value to individual administrations, TADAT assessments can provide both a global and a regional perspective on the more commonly observed weaknesses in tax administration. Such insights are of considerable benefit to international and regional bodies, enabling them to better target their technical assistance efforts, as well as provide evidence-based recommendations on policy reforms.

During March 2023, the TADAT Secretariat was completing work on a global analysis of findings from completed TADAT assessments expected to be published in late 2023. Preliminary observations from its analyses of completed assessments for revenue bodies in Asia and the Pacific identified four areas that were most often assessed with the lowest rating, in the absence of good, sound, or basic practices. These were (i) efficient revenue management, (ii) accurate reporting in declarations, (iii) timely filing of declarations, and (iv) effective risk management. Box 3.6 outlines further details of the specific areas of administration assessed as requiring major attention.

An additional and important finding from the analyses of competed assessments across Asia and the Pacific is the positive correlation evident between TADAT assessments and tax effort (i.e., the ratio of tax revenue collections to GDP [%]). As indicated in Table 3.4, economies where the revenue body generally rated poorly in an overall sense were typically those with a significantly lower tax effort ratio.

Table 3.4: Analysis of TADAT Assessments and Tax Effort, 2023

TADAT Median Assessment	Meaning	No. of Revenue Bodies	Average Tax/GDP (%)
A	Meets or exceeds good practice	1	18.1
B	Sound practices in place	5	19.1
C	Basic practices in place	11	19.0
D	Good practices absent	4	13.0

GDP = gross domestic product, TADAT = Tax Administration Diagnostic Assessment Tool.

Source: M. Cotton. 2023. The Role of TADAT in Improving Revenue Effort. Presentation at ADB's Innovative Tax Administration: A Strategic Workshop, Tokyo, 27–29 March.

Are Revenue Bodies Benefiting from TADAT Assessments?

TADAT assessments are most beneficial when their findings are systematically evaluated by a revenue body's management and decisions are taken on the remedial actions required to lift performance in the areas identified as being of most concern. While not the subject of systematic review, many revenue bodies are known to have responded swiftly and comprehensively to assessed TADAT findings. For example, at an ADB workshop held in March 2023,[28] officials from Maldives reported that their TADAT assessment had been instrumental to their framing of a medium-term reform strategy and tax reform program, with a particular focus on compliance risk management, workforce development, and institutional strengthening. Similarly, officials from the Federal Board of Revenue in Pakistan reported that their TADAT assessment had provided the baseline for strategic reform planning and helped determine future priorities. The TADAT assessment was seen as being extremely useful in meeting goals and for setting up a domestic resource mobilization program supported by ADB, as well as assisting the Federal Board of Revenue in improving its coordination with international partners.

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[28]   Innovative Tax Administration: A Strategic Workshop, Tokyo, 27–29 March 2023.

Box 3.6: Analysis of TADAT Assessments for Economies in Asia and the Pacific, March 2023

AREAS OF TAX ADMINISTRATION OFTEN CONTRIBUTING TO POOR ASSESSMENTS

Efficient Revenue Management (POA9):

- extent of tax administration input to government tax revenue forecasting and estimating;
- adequacy of the tax administration's tax revenue accounting system;
- adequacy of the VAT refund system;
- time taken to pay (or offset) VAT refunds.

Accurate Reporting in Declarations (POA6):

- nature and scope of the tax audit program in place to detect and deter inaccurate reporting;
- extent to which the audit program is systematized around uniform practices;
- degree to which the quality of taxpayer audits is monitored;
- degree to which the tax administration monitors the effectiveness of the taxpayer audit function;
- extent of large-scale automated crosschecking to verify information reported in tax declarations;
- nature and scope of proactive initiatives undertaken to encourage accurate reporting;
- soundness of tax gap analysis method/s used to assess and monitor inaccurate reporting.

Timely Filing of Tax Declarations (POA3):

- number of declarations filed for each of the major taxes by the statutory due date as a percentage of the number of declarations expected from registered taxpayers;
- action taken to follow up non-filers;
- extent to which tax declarations are filed electronically.

Effective Risk Management (POA2):

- identification, assessment, ranking, and quantification of compliance risks;
- mitigation of risks through a compliance improvement plan;
- monitoring and evaluation of compliance risk mitigation activities;
- management of operational risks;
- management of human capital risks.

POA = performance outcome area, VAT = value-added tax.
Source: Based on M. Cotton. 2023. The Role of TADAT in Improving Revenue Effort. Presentation at ADB's Innovative Tax Administration: A Strategic Workshop, Tokyo, 27–29 March.

Future Directions and Developments in the Digitalization of Tax Administration

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Key Messages

- Promising work, coordinated by the OECD's FTA and promoted under the banner of Tax Administration 3.0, is underway to chart likely future directions in the ongoing digitization of tax administration. This work should be of interest to all revenue bodies keen to enhance the delivery of services to taxpayers, reduce their compliance burden, improve efficiency, and raise overall levels of taxpayers' compliance.
- Around two-thirds of participating revenue bodies in developing economies that administer a VAT system are deploying some form of electronic invoice mechanism for administration purposes. Use of these mechanisms is notably absent among revenue bodies in advanced economies (Australia, Japan, and New Zealand). While not studied in detail, the development and operation of these mechanisms requires careful and detailed planning and close management to deliver expected outcomes, as evidenced in a case study on India's experience.
- Progress with the implementation of several innovative technologies being tracked by ISORA appears to have slowed somewhat in FY2021, more than likely because of disruptions to revenue bodies' working arrangements resulting from the COVID-19 pandemic.

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This chapter deals with the evolving role of information technology in revenue administration. It draws on recent work by the OECD's FTA to chart expected future directions in the digital transformation of tax administration and describes the role that digital technologies may play over the coming decade in addressing some of the key challenges and obstacles to be addressed.[29] With this broad context, this chapter then provides a brief update on how advances in the digitalization of tax administration are assisting tax collection and the functioning of the tax systems at large in economies across Asia and the Pacific, drawing on data in ISORA 2022 and prior surveys.

A. Future Directions in the Digitalization of Tax Administration

Over the past decade or so, officials from several revenue bodies in developed economies have progressively advanced their thinking on the likely future directions for the transformation of revenue administration applying advances in modern digital technology. The fifth edition of this series, published in May 2021, drew attention to this collaborative work and referenced a discussion paper prepared for the OECD's FTA— *Tax Administration*

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[29] FTA member economies from Asia and the Pacific are Australia; Georgia; Hong Kong, China; India; Indonesia; Japan; Malaysia; New Zealand; the PRC; the ROK; and Singapore.

3.0: The Digital Transformation of Tax Administration—published in December 2020.[30] The basic premise of the paper was that earlier phases of technology and its adoption for tax administration, which it placed into two broad categories—*Tax Administration 1.0 and Tax Administration 2.0*—had reached the limits of their capability, while leaving significant challenges—which it termed "structural limitations"—still to be addressed. These structural limitations, which still largely exist, are outlined below:

- **Voluntary compliance still applies widely.** The paper observed that the notion of "voluntary compliance" was still relevant in many parts of the tax system in a practical sense, with many taxpayers having opportunities to make choices as to the proper reporting and payment of their tax liabilities. These choices do not always lead to the right compliance outcomes in practice, contributing to an economy's tax gap (i.e., the difference between the amounts of tax that should be paid and what is actually paid). With tax gaps even in advanced economies estimated to be in the range of 5% to 10% each year, this is concerning, given the revenue leakage it represents.

- **The compliance burden.** Complying with tax obligations in some areas of an economy's tax system remains burdensome for many taxpayers, given the complexities and efforts associated with understanding the full range of tax obligations and administrative requirements. Such requirements have impacts on small and medium-sized enterprises (SMEs) in particular. Compliance costs, both monetary and opportunity, resulting from this burden are significant, according to the findings of cited research.

- **Tax verification is often conducted "downstream."** Liability for taxes is typically calculated at the end of a tax period and, thereafter, may be subject to a revenue body's post-assessment verification checks (e.g., audits) well after the return filing event (i.e., "downstream"). This downstream feature of tax administration can lead to uncertainty among some taxpayers, with potential implications for cash flow management and revenue bodies' tax debt inventories, and with further compliance costs for taxpayers when dealing with verification inquiries.

- **Taxation is often an isolated part of government administration.** Despite efforts made over many years to develop "whole-of-government" approaches to the delivery of public services, the variety of the systems and approaches that most government agencies still use complicates data sharing or common processes. This can cause tension and related issues with taxpayers as citizens, for example when they are required to use multiple identity credentials to gain access to online systems and may be subject to multiple reporting requirements.

Taking account of the potential opportunities from increasing digitalization at large, the paper's authors envisaged a series of likely developments, which they presented as constituting a paradigm shift in tax administration, termed "Tax Administration 3.0."

Addressing the Structural Limitations—Tax Administration 3.0

Thinking in the discussion paper was underpinned by recognition that, as more interconnections become possible between the different systems that taxpayers in businesses use to run their business—their so-called "natural" systems—it will become more possible to move taxation processes (upstream) into these systems, subject to there being appropriate assurance mechanisms in place. Under this approach, it becomes possible in an increasing number of areas to build in tax compliance at the time a taxable event arises. A business' employee payroll system is an often-cited example of such a "natural" system. Taking this thinking to a further level of detail,

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30   OECD. 2020. Tax Administration 3.0: The Digital Transformation of Tax Administration. Paris: OECD (page 11).

the paper presented a set of envisaged core features for Tax Administration 3.0 that are outlined below and presented in Figure 4.1.[31]

- **Embedded within taxpayers' natural systems.** Revenue bodies will increasingly adapt their processes to fit in (i.e., become integrated with) taxpayers' natural systems.
- **Part of a reliant "system of systems."** Digital platforms will increasingly become "agents" of the revenue body, carrying out tax administration processes within their systems.
- **A real-time tax certainty provider.** Tax administration processes will increasingly be carried out in real time or close to real time. This development will be supported by artificial intelligence (AI) and advanced algorithms in the assessment phase.
- **Transparent and trustworthy.** All taxpayers will have the ability to check and validate the taxes assessed and paid, as and when required.

Figure 4.1: The Forum on Tax Administration—the Evolution of Tax Administration Digitalization

Tax Administration 3.0
- Taxpayers' natural systems are at the center.
- The tax administration and other parts of government adopt processes to work seamlessly with those systems.
- The tax administration simultaneously becomes more resilient and more agile, something that "just happens."

Tax Administration 2.0
- Taxpayers become customers.
- An increasingly taxpayer-centric view has been adopted.
- New technology tools and significant increases in digital data sources have allowed for the growth of e-administration.
- There is an increasing suite of e-services.
- There is better joining-up within the revenue body and with some other parts of government.
- There is better targeting of resources.

Tax Administration 1.0
- Processes are paper-based and siloed.
- There is a tax administration-centered view of how the tax system should operate.

Source: OECD. 2020. *Tax Administration 3.0: The Digital Transformation of Tax Administration*. Paris: OECD.

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[31]   OECD. 2020. *Tax Administration 3.0: The Digital Transformation of Tax Administration*. Paris: OECD (page 12).

- **Better integrated with other parts of government.** Taxation will increasingly be "joined up" with other government services and functions, seamlessly supported by one digital identity across services and processes.
- **Presenting a human touch and becoming a "high-tech" adaptive organization.** Revenue bodies will increasingly be structured and governed around taxpayers, maximizing human skills with advanced analytics and decision-making support tools to engage with taxpayers as needed.

The paper emphasized that this transformation would be contingent on many things coming together, which, although incremental in nature, should ideally be designed with the end goal in mind. To elaborate, the revenue bodies engaged in this work identified six core building blocks of future tax administration: (i) digital identity, (ii) taxpayer touchpoints, (iii) data management and standards, (iv) tax rule management and application, (v) new skill sets, and (vi) governance frameworks. These building blocks are outlined in Box 4.1 and elaborated in more detail along with their expected evolutionary path in a subsequent report, *Digital Transformation Maturity Model,* published in December 2021.[32]

Box 4.1: Tax Administration 3.0—Envisaged Core Building Blocks

Descriptions, largely verbatim, of the envisaged core building blocks for Tax Administration 3.0 have been taken from the referenced source. Readers are encouraged to refer to the source material for further guidance:

(i) **Digital identity.** The secure identification of taxpayers is key to the efficient functioning of modern revenue bodies, allowing the matching of administration processes (communication, tax return filing, incorporation of other data sources, self-service options, etc.) to individual and business taxpayers.

(ii) **Taxpayer touchpoints.** Communicating, interacting, and facilitating engagements with taxpayers is central to the smooth running of tax administration. In practice, this is supported through several touchpoints, including face-to-face interactions, phone calls, multifunction websites, e-services, business management systems, etc. Advances in digitalization allow revenue bodies to improve existing taxpayer touchpoints or create new ones.

(iii) **Data management and standards.** Tax administration is, at its heart, a data processing operation heavily reliant on the availability and quality of data. With increasing digitalization, revenue bodies have increasingly captured and processed more tax-related data from taxpayers and third parties (e.g., data from e-invoicing and online cash registers, financial account information). To maximize the value of the data that revenue bodies have at their disposition, they also need to consider how to share them effectively and responsibly with other agencies and ecosystem partners.

(iv) **Tax rule management and application.** Currently, tax rule management and application are undertaken primarily within processes driven or supported by tax administration. This usually involves several steps, including guidance on tax law compliance and deadlines, the use of forms and e-forms that require taxpayers' input of specific information, and the finalization of relevant processes within the administration. Digital transformation of tax administration will enable a more decentralized and distributed method of rule application, supporting upstream compliance and the provision of tax certainty at an earlier stage.

(v) **New skill sets.** The skill sets within the current system of tax administration—Tax Administration 2.0— have been adapting over recent years to support more customer-centric e-services and greater use of analytic capability across the organization, including risk assessment and remote verifications. In the aspirational stage of Tax Administration 3.0, these processes will ordinarily be run automatically (and AI-enabled) within the tax administration, including through inputs from other organizations, or within taxpayers' natural systems. The skills required will be more focused on supporting the operation and evolution of the tax administration system as a whole.

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[32]   OECD. 2021d. Digital Transformation Maturity Model. Paris: OECD.

Box 4.1 continued

(vi) **Governance frameworks.** The way in which tax administration is governed depends on political, cultural, societal, and technological factors. This not only is relevant to the organization and control of the tax administration itself but also includes cooperation with businesses, other governmental organizations, and nongovernmental organizations, including taxpayer representative groups. The nature of the transformation to Tax Administration 3.0 requires the joining-up of systems and processes across the public and private sector, as well as internationally.

AI = artificial intelligence
Source: OECD. 2021d. Digital Transformation Maturity Model. Paris: OECD.

Planning for the Future: The Digitalization of Tax Administration

Many revenue bodies have commenced their journey of transforming their administration in the directions outlined for Tax Administration 3.0 (see later comments in this chapter), while many others are still at an earlier phase of development. Regardless of the level of their development for all revenue bodies, transformation presents many risks. This means there is a need for a clear sense of direction, detailed end-to-end planning, adequate resources, effective workforce engagement, and the building of strong collaborative relationships with external stakeholders. International bodies have prepared practical guidance on planning for the transformation envisaged to assist revenue bodies and their officials. Table 4.1 sets out a number of useful references.

Table 4.1: Practical Guidance for Planning the Digitalization of Tax Administration

Name, Source, and Publication Date	Brief Description of Content
Supporting the Digitalization of Developing Country Tax Administrations, OECD (December 2021)	Drawing on the expertise of tax officials globally, this report sets out guidance and insight on how to effectively identify and deliver a digitalization program—from developing the strategic vision through to the details of preparing and executing successful projects. The report includes 30 examples and case studies related to digitalization.
Launching a Digital Tax Administration Transformation: What You Need to Know, ADB (May 2022)	This report represents an overview of issues and areas that policymakers from ADB member economies would want to be familiar with when planning a digital transformation of tax administration.
Digital Transformation of Tax and Customs Administrations, World Bank (December 2021)	This paper provides a road map for policymakers and tax officials on how to incorporate and manage disruptive technologies into the process of building future tax and customs administrations.

ADB = Asian Development Bank, OECD = Organisation for Economic Co-operation and Development.

Inventory of Tax Technology Initiatives

Revenue bodies and others looking for further information on tax administration digitalization may also be interested in a recent initiative of the OECD FTA: the Inventory of Tax Technology Initiatives. The inventory contains information on technology tools and digitalization solutions implemented by tax administrations. It has been put together with the assistance of the ISORA Partners (the Inter-American Center of Tax Administrations), the IMF, the Intra-European Organisation of Tax Administrations (IOTA), and the OECD), ADB, the African Tax Administration Forum, the Cercle de Reflexion et d'Echange des Dirigeants des Administrations Fiscales, the Commonwealth Association of Tax Administrators, and the Study Group on Asia-Pacific Tax Administration and Research (SGATAR).

B. Digitalization Initiatives Underway to Further Modernize Tax Administration

Building on earlier computerization efforts to modernize their routine tax return and payment processes and develop their core processing systems, increasing numbers of revenue bodies are bringing further innovation to their mainstream operations by deploying new digitalization initiatives. These include several applications that exemplify the increasing degree of automated connectedness between the systems of revenue bodies and business, as envisaged in Tax Administration 3.0: the use of electronic invoice mechanisms and electronic fiscal devices. In addition, advances with other technologies, which ISORA describes using the collective term "innovative technologies," are also contributing to the transformation envisaged. These technologies are briefly described in the following section along with ISORA data concerning their usage over recent fiscal years (Appendix Tables 32 and 65 Parts 1 and 2).[33]

Electronic Invoice Mechanisms in Tax Administration

With VAT systems of taxation being so prominent globally for government revenue-raising purposes, it is hardly surprising that their administration has been the focus of the digitalization efforts of many revenue bodies over recent years. The automated capture of VAT invoice data from traders has long been regarded by many tax officials as a panacea for improving risk detection, streamlining administration, and reducing the VAT tax gap. In the OECD report *Supporting the Digitalization of Developing Country Tax Administrations*, published in December 2021, the authors made the following observation:

> Electronic invoicing may significantly improve the efficiency of the tax administration and the business community, reduce the cost of compliance monitoring for the administration, improve the trust-relationship between tax administration and taxpayers, allow for fairer competition among businesses, and is likely to increase revenue by making it more difficult not to comply. Such solutions increase the quality and usually the granularity of the information used for taxation and may be used for prefilling GST/VAT forms. They can also benefit taxpayers by shortening refunding time frames. For society at large, they may also have a significant positive environmental impact through reduction of paper usage.[34]

However, the development and operation of e-invoicing mechanisms are not without challenges, as evident from a more recent OECD FTA report that examined the extensive use of continuous VAT transaction reporting systems relying on electronic invoices produced by businesses around the world, as well as how those systems in practice fitted with the concepts outlined in the OECD's Tax Administration 3.0.[35] The main conclusion from this study was that global standardization interoperability was not realistic in the near term, because of the different implementation options that had been adopted (based on domestic considerations) by the large number of revenue bodies using e-invoicing mechanisms; the existence of a proliferation of standards; and the extent of the current fragmentation of electronic invoicing systems and the implementation costs that had been incurred.

The report, which includes four country cases studies, also notes that implementation of secure and effective e-invoicing is a complex undertaking requiring collaboration with the private sector. In addition, from a tax administration perspective, data storage and data quality elements are among the most important factors enabling a successful implementation (page 35).

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[33]   Descriptions of each "innovative technology" are drawn from the ISORA 2022 glossary and OECD. 2016. *Advanced Analytics for Better Tax Administration: Putting Data to Work*. Paris: OECD.

[34]   OECD. 2021e. *Supporting the Digitalization of Developing Country Tax Administrations*. Paris: OECD (page 106).

[35]   OECD. 2022c. *Tax Administration 3.0 and Electronic Invoicing: Initial Findings.* Paris: OECD.

ISORA and E-Invoicing

For its purposes, ISORA defines the term "electronic invoice mechanism" as referring to a nationwide system whereby taxpayers prepare and deliver electronic documents to record sales and other transactions (usually invoices, credit or debit notes, receipts, or withholding certificates). These electronic documents must comply with a mandatory format (usually in XML) and be digitally signed. They must be sent to the tax administration either before or shortly after the transaction is completed. The buyer will receive the electronic document through electronic means, making it possible to use graphical representation for buyers not able to access the electronic documents. Some tax administrations offer the ability to fill the document using a free site or application hosted by the administration itself.

ISORA data for FY2021 indicate that across Asia and the Pacific 19 of the 33 participating revenue bodies that administer a VAT/GST system deploy some form of e-invoicing mechanism for VAT administration. (The precise features of the mechanisms operating in each economy in FY2021 have not been identified.) This number is largely unchanged from that reported in both FY2020 and FY2019. In FY2021, these arrangements were most commonly observed in the economies of Central and West Asia, East Asia, and Southeast Asia. Notably, revenue bodies in three of the more developed economies of Asia and the Pacific—Australia, New Zealand, and Singapore—did not report use of an e-invoicing mechanism in FY2021 or in any prior fiscal period. Tax gap research findings and/or anecdotal evidence suggest that the VAT tax gap in each of these three economies is much smaller than is likely to be the case in many developing economies across Asia and the Pacific.

E-Invoicing in India

India is one of several larger economies in Asia and the Pacific known to have implemented an e-invoicing mechanism.[36] Its Central Board of Indirect Taxes regards the e-invoicing mechanism as an integral part of its overall strategy for implementation of the GST in India—introduced in 2018— and for the digital transformation of the country's system of indirect taxation.[37] Box 4.2 sets out a brief description of the arrangements in place.

A key message from the Indian experience is that successful implementation of e-invoicing requires a comprehensive strategy, including extensive collaboration and engagement with intermediaries and taxpayers:

- outreach through webinars, seminars, workshops, tutorials, frequently asked questions, etc.;
- education of taxpayers on the benefits of e-invoicing;
- adequate time for taxpayers to prepare and test e-invoicing arrangements before mandating;
- extending the benefits of e-invoicing to taxpayers (e.g., through the prefilling of details of supplies in their GST returns and the auto-generation of e-way bills);
- appropriate statutory and administrative measures to support implementation of e-invoicing;
- provision of listings of taxpayers required to generate e-invoices on the GST portal, which is also shared with tax officers to ensure effective implementation;
- supporting taxpayers with adaptation to new technology, including application programming interface (API) integration of larger taxpayers with the IRP and a facility for the generation of e-invoices without API integration for smaller taxpayers.

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[36] Other larger economies and revenue bodies using e-invoicing mechanisms are Indonesia, Pakistan, the PRC, and the ROK (see VAT Update. 2021. China Starts to Issue Special VAT E-Invoices to New Taxpayers).

[37] These observations are based on S. Mangal. 2023. Implementation of E-Invoicing in India. Presentation at ADB's Innovative Tax Administration: A Strategic Workshop, Tokyo, 27–29 March.

Box 4.2: India's E-Invoicing Mechanism

E-invoicing involves the preparation of a tax invoice by notified suppliers who upload specified particulars of the invoice (in specified schema) on an invoice registration portal (IRP), which then returns the e-invoice with a unique 64-digit invoice reference number (IRN) after digitally signing the e-invoice and adding a quick response (QR) code. The copy of the tax invoice issued by the notified supplier to the buyer containing, among other things, the IRN and the QR code generated by IRP, is referred to as an "e-invoice." The process is depicted below:

Process for the Generation of E-Invoices and Auto-Population of GST Returns
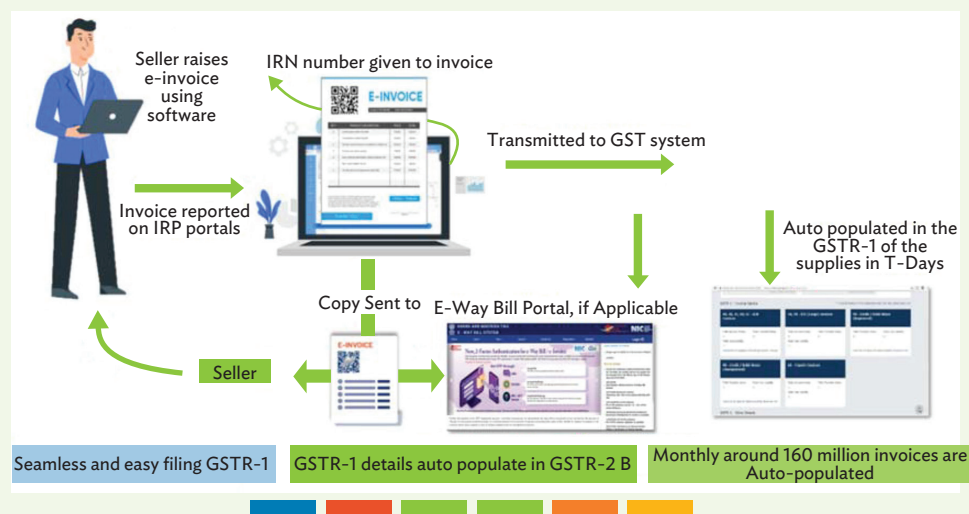
GST = goods and services tax, GSTR = goods and services tax return, IRN = invoice reference number, IRP = invoice registration portal.

Recognizing the magnitude of the task to be implemented, India's Central Board of Indirect Taxes adopted a phased implementation strategy, commencing with the largest suppliers and progressively expanding the population according to turnover levels. The system applies to business-to-business and export transactions and excludes business-to-consumer and some sectors that generate huge numbers of invoices (e.g., banking, insurance, goods transport agencies).

In Phase 1 there was just one IRP, while six were required for the workload associated with Phase 5. Data set out in Table 4.2 identify the phases adopted and the number of suppliers and invoices involved:

Table 4.2: India—the Phased Implementation of E-Invoicing

Phase	Turnover Levels (₹ millions)[a]	Timing	No. of Suppliers	Invoices/Month (millions)
1	>5,000	October 2020	30,000	49
2	>1,000	January 2021	70,000	74
3	>500	April 2021	110,000	82
4	>200	April 2022	250,000	126
5	>100	October 2022	420,000	153

[a] Approximate currency conversions as of April 2023, ₹5,000 million = $61 million; ₹100 million = $1.2 million.

Source: Adapted from S. Mangal. 2023. Implementation of E-Invoicing in India. Presentation at ADB's Innovative Tax Administration: A Strategic Workshop, Tokyo, 27–29 March.

While operation of the mechanism in India is in its infancy and its implementation has been carefully phased in and targeted to ensure manageability, authorities see many benefits from the digitalization of GST invoices for both taxpayers and the tax administration. These include a standard invoice format and interoperability; the prefilling of details in GST returns; controlling tax evasion; improving the correctness of GST returns; ensuring real-time reporting of supply details by suppliers; interoperability; and the availability of data for analytics, assessment, enforcement actions, and taxpayer services.

Looking to the future, India's tax officials envisage the following further developments: (i) extending e-invoices to all business-to-business (B2B) transactions, (ii) extending e-invoicing to sectors currently exempted, (iii) extending e-invoicing to B2C transactions, (iv) advances in e-invoice analytics, and (v) the automated generation of complete GST returns once e-invoicing has universal coverage of all transactions.

Electronic Fiscal Devices/Cash Registers

The 2020 edition of this series drew attention to the challenges presented by the retail business sector of economies to effective tax collection given its scale, the relatively large number of small operators, the sheer volume of (largely cash) transactions involved, and the ease with which receipts, especially cash, can be understated for tax purposes. It observed that revenue bodies historically had few tools available to encourage high levels of tax compliance in the retail sector and typically resorted to time-consuming and costly audits. However, it noted that advances in technology had over the prior decade or so presented new opportunities for more effective tax administration in this area, and highlighted the emergence of "electronic fiscal devices/cash registers."

To assist readers, the series report referenced an OECD report prepared by the FTA that described (i) how electronic cash registers, including online cash register systems, were being used; (ii) the factors that revenue bodies might wish to consider concerning their potential use; and (iii) the core elements of a strategy for their successful introduction.[38] The OECD report included four short case studies and ADB's report presented a brief snapshot of the system then operating in the ROK.

Over more recent years, there have been significant developments in the use of digital payment systems, which are rapidly changing the landscape in which many revenue bodies must operate. In brief, payments to retail businesses for both goods and services are increasingly being made using digital methods, resulting in the creation of digital records for a growing volume and value of retail sector sales (Box 4.3). This growth presents potential for the development of new tools to support the administration of taxes, including new third-party information reporting arrangements to facilitate tax administration.

Suffice to say that future editions of this series will inevitably explore how revenue bodies are increasingly taking advantage of the digitization of consumers' payments for their goods and services to improve the compliance of retail businesses.

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[38]   OECD. 2019a. *Implementing Online Cash Registers: Benefits, Considerations and Guidance*. Paris: OECD.

Box 4.3: The Growing Digitalization of Consumer Payments

The Global Banking Practice arm of the international consultancy firm McKinsey and Company produces a regular report (the Global Payments Report) on developments and trends in the payments industry. Its latest publication—*The McKinsey 2022 Global Payments Report*—presents a detailed analysis of results for 2021 and the insights they reveal, at both a regional and a country level. Coinciding with the pandemic that commenced in 2020 and extended into 2021 in many countries, this report contains some revealing developments concerning the payments industry, with potential implications for future tax administration. For example, drawing on its research and highlighted in the report (page 43):

- Digital payment transactions grew rapidly in emerging markets during 2020 and 2021, as the pandemic prompted shifts to contactless payments and e-commerce. In particular, e-wallets proliferated, real-time account-to-account transfers took off, and industry players formed new partnerships to access capabilities and broaden their customer base. Some of the fastest growth in digital payments occurred in Africa and Southeast Asia, where low banking penetration gives payment providers opportunities to capture untapped potential and reach underserved populations.

- Four major trends have driven the growth in digital payments:
    - The pandemic accelerated the shift from cash to contactless digital payments that was already under way among consumers.
    - E-commerce continued to grow and evolve, with global volumes increasing by 25% between 2019 and 2020. It is expected to grow by 12%–15% a year to 2025.
    - Government policies resulted in more cashless payments to facilitate interoperability, plug tax leakages, and ensure effective distribution of aid.
    - Investors' appetite for digital payments grew, leading to many payments-focused fintechs.

- Despite this explosion in digital retail payments, McKinsey notes that cash remains king in some markets. In Africa, it was used in 95% of transactions in 2021, according to McKinsey's Global Payments Map. Cash is still the top in-person point-of-sale payment method in Southeast Asian markets, including Thailand (where it accounts for 63% of POS transaction value), Viet Nam (54%), Indonesia (51%), and the Philippines (48%).

Source: McKinsey and Company. 2022. *Global Banking Practice: The 2022 McKinsey Global Payments Report*. October.

ISORA and Electronic Fiscal Devices

ISORA continues to monitor the use of electronic fiscal devices/cash registers and describes them as a physical device (POS–Cash Registers–Printers) certified by the tax administration that taxpayers must use to record sales with details of individual transactions, including tax-related information, in nonvolatile read-only memories the tax administration can access for verification purposes. Modern devices can include capabilities to encrypt information using digital signatures and transmit the data to the tax administration either in real time or in periodic batches.

ISORA data for FY2021 indicate that, across Asia and the Pacific, 17 of the 41 participating revenue bodies had arrangements in place involving the use of electronic fiscal devices/cash registers. This number is largely unchanged from that observed in FY2020 and FY2019. In FY2021, these arrangements were most reported by revenue bodies of economies in Central and West Asia, East Asia, and Southeast Asia. Notably, use of electronic fiscal devices/cash registers was not reported by many revenue bodies in some of the more developed and/or larger economies of Asia and the Pacific: Australia; Hong Kong, China; Japan; Malaysia; New Zealand; Singapore; Taipei,China; and Viet Nam.

The Use of Innovative Technologies

To gauge the level of progress with the use of these technologies, ISORA seeks an indication from revenue bodies as to whether any of a range of specified technologies are being deployed in their day-to-day operations or are in the course of being implemented. Appendix Table A.65 (Parts 1 and 2) sets out the data reported by revenue bodies for FY2021. With similar data from prior ISORAs, it is possible to identify those technologies that appear to be attracting the greatest interest from revenue bodies, as well as revenue bodies that are active in enhancing their administrative operations.

Drawing on the latest ISORA data, it appears that the overall rate of progress with the use of these technologies slowed somewhat in FY2021, more than likely because of disruptions to revenue bodies' working arrangements resulting from the COVID-19 pandemic. Figure 4.2 provides a snapshot of the overall position in FYs 2019–2021 for the revenue bodies reported in this series, while comments on individual technologies are set out later in this section.

Viewed across all the technologies reviewed over the 3 fiscal years, 13 revenue bodies reported the operational use of five or more of the technologies in FY2021, compared with 11 in FY2020 and seven in 2019. Comments on the use of individual technologies are set out in the following section.

Figure 4.2: Use of New Technologies, FYs 2019–2021
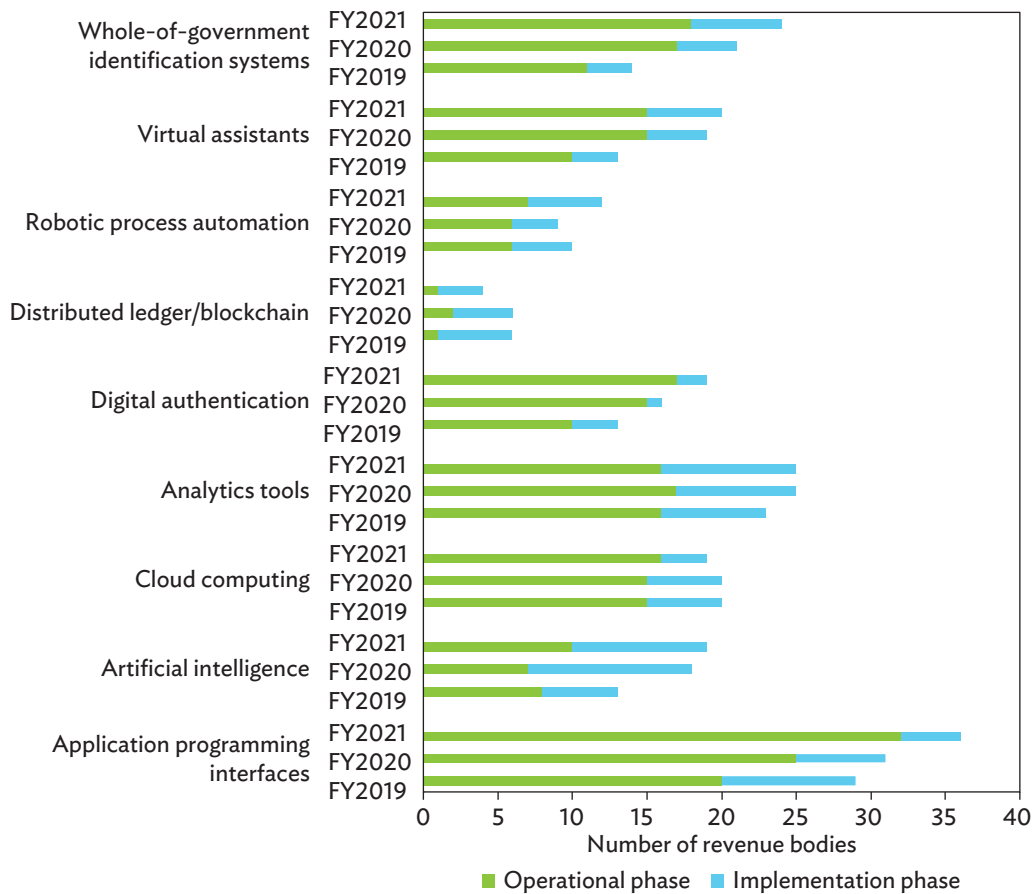
FY = fiscal year.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Application Programming Interfaces

ISORA defines an application programming interface (API) as a set of software functions and procedures, allowing applications to access the features and/or data of another software solution. Applications can send requests to this interface and receive responses. A significant advantage of this compared with traditional software interfaces is that complex and sensitive information can be protected inside the software solution, since communication with other applications only goes through the API. As a result, APIs allow for safe digital interaction between revenue systems and external applications in banks, accounting software providers, and other government agencies. They can, for instance, be used to send and receive information, validate activities, and facilitate transactions. The OECD report *Unlocking the Digital Economy: A Guide to Unlocking Application Programming Interfaces in Government, published in 2019,*[39] provides an overview of the practices, techniques, and standards used to deliver contemporary and effective digital services for taxpayers through APIs. Box 4.4 highlights an example of their use.

Box 4.4: Australia—Using Application Programming Interfaces to Provide Better Services

In 2021, the Australia Taxation Office further enhanced its services to agents and third parties by delivering communication preference and client communication application programming interfaces (APIs). Providing APIs to digital software providers (DSPs) allows them to build functions that agents can then access via their natural systems. These include communication preference APIs to enable DSPs to build functions into their software that allow tax agents to set preferences for who receives the taxpayer's communication and also to retrieve digital copies of communications sent to them or their clients. In addition, these extended services enable agents to proactively manage their client's communications and drive a further uptake in clients receiving communications digitally. As at the end of December 2021, tax agents had set over 1 million preferences for clients to have their communications delivered digitally to the agent.

Source: Organisation for Economic Co-operation and Development (OECD). 2021e. Supporting the Digitalization of Developing Country Tax Administrations. Paris: OECD.

Over 80% of revenue bodies reported using APIs in FY2021 or having them under development, reflecting steady progress in their use since FY2019.

Artificial Intelligence

Artificial intelligence (AI) is described in ISORA as the ability of machines and systems to acquire and apply knowledge, including by performing a broad variety of cognitive tasks (e.g., sensing, processing language, pattern recognition, learning, and making decisions and predictions). Machine learning is a subset of AI.

Ten revenue bodies reported having an operational AI or machine-learning based application in FY2021, while a further nine indicated that applications were in the development phase. Progress in the operational application of this technology has been steady since FY2019, albeit time-consuming, given the lengthy testing and trialing required.

Cloud Computing/Technology

Cloud computing is a service model that provides clients with flexible, on-demand access to a range of computing resources. Clients access such resources (e.g., software applications, storage capacity, networking, and computing power) online.

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[39]   OECD. 2019b. *Unlocking the Digital Economy: A Guide to Unlocking Application Programming Interfaces in Government.* Paris: OECD.

For FY2021, 16 revenue bodies reported use of these technologies, while a further three indicated developments were underway. Usage is largely unchanged from that reported for FY2019.

Data Sciences/Analytics Tools

ISORA defines analytics as the process of applying statistical and machine-learning techniques to uncover insights from data, enabling them to make better decisions about how to deploy resources to the best possible effect.

ADB has not made any study of the use of analytics in tax administration by revenue bodies in Asia and the Pacific. However, the OECD's report *Supporting the Digitalization of Developing Country Tax* Administrations[40] has a very informative separate section dealing with the topic, which includes the following important observation:

> Analytics may contribute directly to accomplishing objectives of digitalization, for instance by optimising the selection of taxpayers for audit, usually resulting in reduced cost and increased revenue. However, the most significant benefits from Analytics probably stem from its function as *enabling other opportunities*: By joining data sources and analysing the combined data sets, the administration may uncover insights that can be used to achieve a whole range of digitalization objectives.

The OECD's report also identifies a very broad range of potential benefits from effective use of analytics, which include (i) management (e.g., for revenue forecasting and policy evaluation purposes); (ii) taxpayer services (e.g., for strategy evaluation and identifying compliance burden reduction opportunities); and (iii) compliance risk management (e.g., for fraud detection, audit case selection, risk treatment evaluation, and risk profiling for tax payment purposes).

ISORA 2022 data reveal that many revenue bodies were making use of analytics tools and techniques in FY2021, with 25 revenue bodies reporting their use or pending implementation. However, usage was largely unchanged from the level reported for FY2019. Malaysia's revenue body has been particularly active over recent years in building its internal capability and taking advantage of analytics tools and big data platform for improving taxpayers' compliance (Box 4.5).

Box 4.5: The Inland Revenue Board of Malaysia's Internal Digitalization Platform and Use of Analytics Tools

The following comments were provided in a paper presented by officials of Malaysia's Inland Revenue Board of Malaysia (IRBM) to the 51st Study Group on Asia-Pacific Administration and Research annual meeting on the topic *Supporting SME's Compliance through Digitalization***:**

- IRBM has made significant progress in the last few years by adopting and exploring new approaches by hiring new skilled data scientists and data engineers as well as developing analytics tools.
- With our big data platform, IRBM has managed to deal with the increasing amounts of structured and unstructured data that come from various sources.
- IRBM is also able to process and analyze data in a real-time basis. Real-time monitoring reduces the amount of information that it would otherwise have to request from taxpayers.

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40   OECD. 2021e. *Supporting the Digitalization of Developing Country Tax Administrations*. Paris: OECD (page 115, emphasis in original).

Box 4.5 continued

- IBRM's Big Data Analytics activities have become an effective tool to: (i) understand the behavior of taxpayers through the patterns of individual or company towards tax compliance, (ii) develop a full profile of the taxpayer by linking the data held internally and from external sources, (iii) improve the effectiveness of the risk management tax systems, and (iv) improve its ability to monitor tax compliance through the segmentation of taxpayers.

- Analytical tools also benefit IRBM, enabling it to "nudge" taxpayers into amending their tax behavior. This is done by: (i) sending reminder letters to taxpayers to make a voluntary disclosure before audit or investigation activities are carried out with a lower penalty offer, (ii) sending e-mails to encourage taxpayers to submit their tax forms using e-filing, and (iii) the use of pop-up messages through the e-filing platform alerting taxpayers to declare their income based on IRBM data analytics information.

Source: IRBM. 2022. Paper presented to 51st Annual SGATAR meeting for Agenda Item 3—Supporting SME's Compliance through Digitalization.

Digital Authentication Technologies

These technologies enable the automated authentication of an individual's identity using their physiological and behavioral characteristics (e.g., fingerprint, iris recognition, face recognition, and voice). This method is used widely to verify personal identity.

Progress is being made with the deployment of taxpayer identification applications using digital technologies. Seventeen revenue bodies from a wide cross-section of economies (e.g., Australia; Cambodia; Georgia; New Zealand; Pakistan; Singapore; Taipei,China; Thailand; Uzbekistan; and Viet Nam) reported having operational applications in FY2021. Two others had applications under development.

Distributed Ledger Technology/Blockchain

As described in the ISORA glossary, these technologies allow transactions to be stored and updated on many computers at the same time. With many computers involved, this is fail-safe and makes unauthorized changes very difficult. Blockchains use distributed ledger technology (DLT) to store transactions in a chain of blocks where each block contains one transaction. The combination of cryptography and DLT ensures that a block, once added to the chain, can never be altered. It enables applications to authenticate ownership and carry out secure transactions for a variety of asset types.

There has been very little progress regarding the development of applications based on DLT/blockchain approaches, and only one revenue body (Thailand) reported having an operational application, while three others indicated they had applications under development or experimentation. This represents little change from the situation reported in FYs 2019 and 2020.

Robotics Process Automation

These applications are based on software "robots" that learn a set of operations and then perform them as if it were a human interacting with the computers. This is often used to automate repetitive tasks that otherwise would have to be done by revenue body staff—for instance copying information from one legacy system to another.

For FY2021, seven revenue bodies (including Georgia, India, and Singapore) reported having operational applications, while a further five indicated that applications were in the course of development. Usage in FY2021 was largely unchanged from the level reported for FY2019.

Virtual Assistants

ISORA defines this technology as software packages that simulate human interactions by handling questions or requests that otherwise would be handled by humans. They are sometimes called chatbots because they can be used to respond to online chats. Virtual assistants can use predefined sets of questions and answers and can additionally be powered with machine learning capabilities.

Fifteen revenue bodies reported having an operational virtual assistant/chatbot application in FY2021 while a further four (Armenia, Georgia, Papua New Guinea, and Timor-Leste) reported that applications were being developed. ISORA data reported in respect of service contacts (Appendix Table A.60 Part 2), demonstrate the relatively large numbers of inquiries these applications can process. For example:

- the PRC—over 21 million inquiries processed in FY2021;
- Japan—almost 5 million inquiries processed in FY2021;
- Australia—over 2 million inquiries processed in FY2021.

This is an improvement over the position reported for FY2019, when only 10 revenue bodies reported having operational applications. Box 4.6 presents an example of a digital assistant tool from Japan.

Box 4.6: Japan—the National Tax Agency's Use of a Chatbot for Consultations with Taxpayers

Japan's National Tax Agency (NTA) introduced a chatbot application in October 2020 to automatically provide answers to taxpayers online as a new channel of virtual tax consultation. In addition, the NTA has posted answers to taxpayers' common questions on its website "Tax Answer." This means that, in addition to Tax Answer, taxpayers can use a chatbot to solve their tax-related issues. Taxpayers can ask questions concerning taxes by selecting questions from a drop-down menu or by writing them in a text box, and then artificial intelligence (AI) will generate answers automatically. Through the use of the chatbot for tax consultations, users will be able to ask questions concerning taxes more easily, at any time of day, and access information published on the NTA website immediately.

Since its introduction, the NTA has improved the specifications of the chatbot based on user feedback and AI learnings. When the chatbot was officially introduced in 2021, the number of questions it received was 4.2 million. This represented a more than 10-fold increase from when the chatbot was in trial operation in 2020. For fiscal year 2021, the NTA reported in International Survey on Revenue Administration (ISORA) 2022 that over 4.8 million inquiries were received; more recent data, from the NTA's latest annual performance report, indicate that these inquiries grew to just under 6 million in FY2022.

Sources: OECD. 2022f. *Tax Administration 2022. Comparative Information on OECD and Other Advanced and Emerging Economies.* Paris: OECD (page 81); NTA. 2022. Annual Report 2022.

Whole-of-Government Identification Systems

These are systems to uniquely identify individuals, entities, and other bodies within a common database. They are primarily used across multiple government agencies to simplify registration requirements and processes and to facilitate the authorized exchange of information between agencies. Future use may be expanded to include nongovernment applications, such as proof of identity required when accessing cellular networks.[41]

Reflecting the growing use of "whole-of-government" approaches to managing how citizens and businesses engage with government for the delivery of public services (e.g., service delivery, revenue collection, payment of pensions, people movement), 21 revenue bodies reported the use of whole-of-government identification systems for citizens and/or businesses, or that these systems were in development or being piloted (e.g., in Indonesia). This compares favorably with the situation in 2019, when only 14 revenue bodies reported that such systems were operational or being developed.

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[41]   For example, the European Digital Identity.

CHAPTER 5
Tax Administration Operations

Key Messages

- Performance across the main operational areas of revenue bodies in FY2021, relative to FY2020, was mixed, with economy-by-economy comparisons complicated by wide variations in fiscal reporting periods and unevenness in the impacts of the pandemic, and many gaps in revenue bodies' performance reporting for ISORA. Those qualifications aside:
  - There was no clear pattern or major changes in registration or return filing workloads.
  - Many gaps in the reporting of taxpayer service channel workloads prevented analysis.
  - Around two-thirds reported declines in verification program outputs.
  - There was no clear pattern or change in dispute case numbers.
  - Around two-thirds reported increases in their year-end tax debt inventory; applying the ratio "end-year tax debt to annual tax collections," a proxy for payment compliance levels, over 25% appear to have experienced significant levels of poor payment compliance.
  - Data for both FY2020 and FY2021 indicate a fair decline in tax crime investigations.
- Staff resource allocations for the critical functions of post-filing verification and enforced debt collection appear inadequate to support a balanced and effective program of work in at least 20% of revenue bodies.
- Most revenue bodies have a dedicated large taxpayer office or program to manage the tax affairs of their largest corporate taxpayers, as strongly advocated by international bodies; however, looking at tax base coverage, there appears to be the potential for around 20% to expand the scope of their operations; a few revenue bodies have yet to embrace the concept at all.
- Revenue bodies continue to expand their use of technology for their routine operations (e.g., electronic filing and payments, prefilled tax returns), and there is a clear trend of increased usage.
- Gaps in the reporting of performance-related data for many revenue bodies suggest weaknesses in the management information systems used to monitor operations and evaluate performance; unless remedied, areas of underperformance are unlikely to be addressed.

This chapter summarizes revenue body performance in the mainstream areas of revenue administration operations, focusing primarily on FY2021, and should be read in conjunction with the data reported in referenced appendix tables. To assist in the identification of changes and trends in performance, including any impacts of the COVID-19 pandemic in FY2020 and FY2021, these tables include corresponding information from prior years' ISORA reports.

Regardless of how they are formally structured and organized, revenue bodies typically conduct a common range of functions in administering the tax system to carry out their mandate (Figure 5.1). This chapter looks at the operational performance of these functions, and draws attention to their core role and relevance; differences between economies that may affect operational performance; aspects of support provided through the increasing use of modern technology systems; and any trends or significant changes evident from performance-related data, particularly for FY2020 and FY2021, the years during which the COVID-19 was at its worst in most economies.

Figure 5.1: Key Functions of a Tax Administration

TAXPAYER REGISTRATION → TAXPAYER EDUCATION AND SERVICES → RETURNS AND PAYMENTS → VERIFICATION PROGRAMS → ENFORCED DEBT AND FILING → DISPUTE RESOLUTION

Notes: Some revenue bodies administer a function to investigate tax crimes and, where appropriate, to initiate prosecution action.
Source: Authors' compilation.

A. Taxpayer Registration and Identification Processes

Processes supporting the registration and identification of taxpayers are fundamental to a revenue body's system for managing all aspects of all taxpayers' tax affairs. The systematic recording and updating of taxpayer details on a register and the allocation of a unique high-integrity identifier facilitate the efficient conduct of all downstream tax administration processes, including assessment, debt collection, late filer enforcement, and the detection of unregistered taxpayers. Box 5.1 summarizes practical guidance for an effective system of taxpayer registration and identification.

Box 5.1: Good Practices in Taxpayer Registration and Identification

- Use of a unique taxpayer identification number (TIN) that facilitates routine identification of taxpayers for administrative actions (e.g., detection of non-filers), third-party information reporting and data matching (e.g., data matching in respect of interest earned on bank deposits, dividends paid by public companies, contract income, and asset sales), and exchange of information with other government agencies.

- An effective information and communication technology-based system, as elaborated in the Tax Administration Diagnostic Assessment Tool field guide.

- Maintaining a database of sufficient, accurate, and reliable identifying details (nature and size of business activity, tax obligations by tax type) to assist interactions with the taxpayer and tax intermediaries (i.e., tax advisors and accountants), especially in relation to filing, payment, and assessment matters.

- Identifying and flagging dormant registrations (e.g., seasonal businesses and taxpayers temporarily residing in other countries) and taking reasonable steps to keep the database clean of inactive (deceased persons and defunct businesses), invalid, and duplicate records—noting that inactive and erroneous records can produce unnecessary costs and distort filing statistics.

- Ensuring that applications for registration are authentic—this includes, for example, carrying out proof of identity checks to prevent bogus entities from registering, given that both value-added tax and income tax are targets for refund fraud.

- Undertaking risk-based initiatives to detect unregistered businesses and individuals, especially those representing high revenue risks (e.g., high-income self-employed).

Source: Adapted from IMF. 2019. *TADAT: Tax Administration Diagnostic Assessment Tool Field Guide*. Washington, DC: IMF.

ISORA 2022 sought a limited array of information on revenue bodies' registration processes, including data on the service channels available (both digital and manual) to assist businesses and citizens to initiate a registration application, and on the numbers of registered taxpayers at end-FY2021 for the main taxes administered. Details of the data reported are set out in Appendix Tables A.32 to A.37, A.41, and A.59; a few observations are set out in the next section. For registration volumes, the appendix tables display total registrations and the number of registrations regarded as "active" (i.e., those registered taxpayers for whom a tax consequence typically arises during the fiscal year (tax liability or tax refunds without any obligation to file) or who for any other purpose file a tax return) and show corresponding information for FY2020 and FY2019 to help identify any significant changes or trends.

Registration Channels

Revenue bodies have a range of different service delivery channels they can choose to provide for businesses and citizens to initiate and complete a registration for tax purposes. Appendix Table A.59 sets out data reported by revenue bodies on the channels available in FY2021.

Almost 75% of revenue bodies reported offering three or more channels for registration purposes, with the most commonly available channels being online, by mail, and in person at revenue bodies. The data reported should be interpreted with care as it is possible that some revenue bodies require at least two channels (e.g., online and in person) to fully complete an applicant's registration.

Reflecting on the evolution toward whole-of-government approaches to managing how citizens and businesses engage with government for the delivery of public services, as described in the preceding chapter, 21 revenue bodies reported the operation of whole-of-government identification systems for citizens and/or businesses, or that these systems were in the course of development or being piloted (Appendix Table 65 Part 2). This compares favorably with the situation in FY2019, when only 14 revenue bodies reported that such systems were operational or in the course of development.

Good progress is also being made with the deployment of digital authentication technologies, such as voice and facial recognition, to verify a taxpayer's identity for administrative purposes (Appendix Table 65 Part 2). A total of 17 revenue bodies from a wide cross-section of economies across the region (including Australia; Cambodia; Georgia; Japan; Pakistan; the Philippines; Singapore; Taipei,China; Uzbekistan; and Viet Nam) reported having operational applications in FY2021. Two others reported having applications in the course of development.

Registered Taxpayer Populations

ISORA captures data on the number of taxpayers registered for each of the major taxes at the end of each fiscal year—corporate income tax (CIT), personal income tax (PIT), employer withholdings of income tax, value-added tax (VAT), and excises (for domestic producers).

Corporate Income Tax

Data reported on registrations for CIT are set out in Appendix Table A.32. As will be evident, there is considerable variability in the data reported by revenue bodies and, in the absence of any benchmark that can be applied for comparability purposes, it is not possible to draw any firm conclusions as to the exhaustiveness of the registered corporate populations reported by each revenue body.

Concerning movement in the overall size of the registered corporate taxpayer populations, the overall picture is mixed, with instances of significant increases and reductions (i.e., +/–15%) between FY2021 and FY2020 and between FY2021 and FY2019 (Appendix Table A.37). Significant increases in registered populations are apparent in Bhutan, Fiji, India, Nepal, Pakistan, Solomon Islands, Timor-Leste, and Uzbekistan. For most of these economies, these increases were in line with similar increases experienced in the prior fiscal year. On the other hand, data from two revenue bodies (New Zealand and the Philippines) point to significant reductions over both years.[42]

In the case of Maldives, its revenue body reported that, following the enactment of a new income tax law in 2020, all sole proprietorships were transferred from the corporate to the individual income tax registry, resulting in a far smaller population of registrants in FY2021 compared with FY2019.

Personal Income Tax

Registrations data reported for PIT are set out in Appendix Table A.33. Around one-fourth of participating revenue bodies were unable to report this basic but important data element.

Registration data for PIT are more readily contrasted when account is taken of the significant differences that exist across economies in Asia and the Pacific in the design of the tax policy and administrative elements that support the collection of PITs, especially from employees who are typically subject to employer income tax withholding obligations. These differences were elaborated in the previous edition of this series and, in the main, relate to whether most employees are (i) subject to employer income tax withholding obligations, (ii) required to register for tax purposes, and (iii) required to file an annual tax return. ISORA captures limited data on these features of the tax system for each economy (Appendix Table A.41), enabling an analysis of their relevance across Asia and the Pacific and the placement of economies into one of four categories, set out in Figure 5.2.

Figure 5.2: Model Personal Income Tax Arrangements for Employee Taxpayers across Asia and the Pacific, FY2021

Model 1	Economies with this Model
• Employer withholding on wages applies. • Employees are generally not required to register with tax body. • Most employees are not required to file tax returns.	Armenia, Azerbaijan, Cambodia, Fiji, Georgia, Japan, the Kyrgyz Republic, Maldives, Palau, Papua New Guinea, Samoa, Solomon Islands, Uzbekistan
Model 2	
• Employer withholding on wages applies. • Employees are generally required to register with tax body. • Most employees are not required to file tax returns.	the People's Republic of China, Kazakhstan, the Lao People's Democratic Republic, Nauru, Viet Nam
Model 3	
• Employer withholding on wages applies. • Most employees are required to register with tax body. • Most employees are required to file tax returns.	Australia, Bhutan, the Cook Islands, Indonesia, the Republic of Korea, Nepal, New Zealand, the Philippines, Tajikistan, Timor-Leste, Tonga
Model 4	
• No employer withholding applies. • Employees are required to register with tax body. • Most employees have to file tax returns.	Hong Kong, China; Singapore

FY = fiscal year.

Notes: Sri Lanka; Taipei,China; and Thailand reported no need for employees to register but a requirement to file tax returns. There is no personal income tax (PIT) regime in Brunei Darussalam or Vanuatu.

Source: ISORA 2022.

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[42]   New Zealand's revenue body advised that the reduction owed to a change in the methodology applied for counting taxpayers— corporate taxpayers previously included trusts, whereas now trusts are included under individuals.

Concerning movements in the overall size of the registered individual taxpayer population between FY2020 and FY2021, the picture across the region is mixed. For the economies where complete data are available, relatively large increases (i.e., +15%) are observed in Bhutan, Fiji, Indonesia, Maldives, Mongolia, Nepal, Papua New Guinea, the ROK, Tajikistan, and Timor-Leste. Large reductions (i.e., -15%) are observed only in Sri Lanka. It is possible that these movements in registered taxpayer populations are related to the pandemic, which affected economic activity to varying degrees and at slightly different times in both fiscal years of economies across Asia and the Pacific.

Viewed against the benchmark of each economy's official labor force population, the proportion of individuals registered for PIT purposes varies enormously across Asia and the Pacific, ranging from less than 2% to over 300% (Figure 5.3).

Figure 5.3: Registered Personal Income Taxpayers, 2021
(% of labor force)

Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea.
Sources: ISORA 2021; ADB. 2022e. *Key Indicators for Asia and the Pacific.*
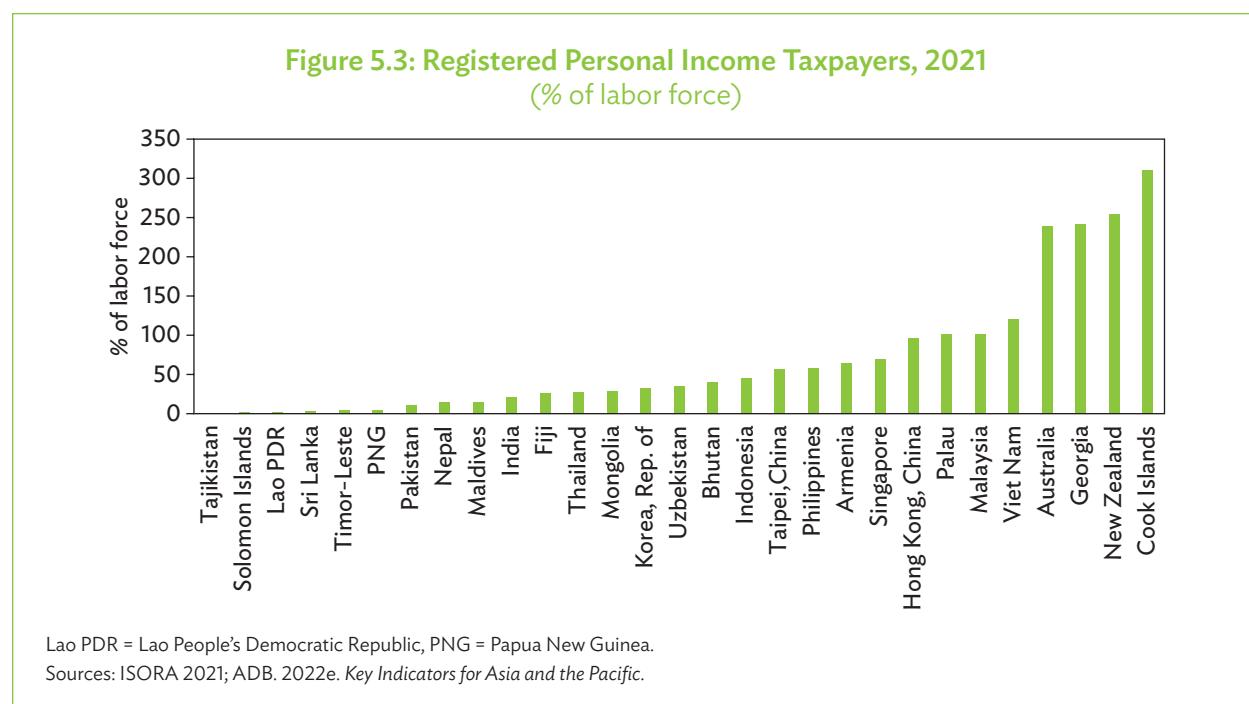
Where the requirement for taxpayer registration is more extensive (e.g., in Australia; Georgia; Hong Kong, China; Malaysia; New Zealand; and Singapore), the PIT system requires a higher proportion of citizens to file annual tax returns (Appendix Table 42). A very high rate of taxpayer registration may also indicate that this feature of the tax system supports the administration of the government's social policy programs, as observed in economies such as Australia and New Zealand.

Employers' Income Tax Withholdings

The data reported on registrations of employers for income tax withholding purposes (Appendix Table A.34 are less comprehensive, for a variety of reasons. As already noted, two economies [Brunei Darussalam and Vanuatu] do not have a PIT regime, while two others [Hong Kong, China and Singapore] do not generally require employers to withhold income tax from salaries and wages paid to resident taxpayers). The reasons for other gaps have not been researched, although a possible explanation for some revenue bodies is that employers are not generally required to uniquely register for income tax withholding purposes and that alternate administrative arrangements are followed in practice.

Value-Added Tax

Across the 41 economies participating in this edition, 33 administer a system of indirect tax based on VAT principles. Bhutan has enacted laws for the introduction of a VAT system in the immediate future.

There was considerable variability in the registration data reported by revenue bodies administering a VAT system and, in the absence of any recognized benchmark that can be applied for comparability purposes, it is not possible to draw conclusions as to the exhaustiveness of the population of registrants reported by each revenue body (Appendix Table A.35). A complicating factor in any such assessment is the fact that monetary thresholds for VAT registration and collection purposes—typically expressed in terms of annual turnovers—vary significantly from economy to economy, with direct implications for the proportion of businesses required to register for VAT purposes.

For those revenue bodies reporting complete data across all fiscal years, there was a fair level of volatility in registered populations within some economies. Comparing populations in FY2021 with FY2019, significant increases (+/–25%) were experienced in Azerbaijan and Uzbekistan, while substantial reductions were seen in Bangladesh, the Cook Islands, Fiji, and Papua New Guinea.

Excises

Not all economies in the region feature domestic producers of excisable goods (e.g., tobacco, alcohol, and petroleum products). Even in economies where they do exist, their administration often falls within the mandate of the customs body, not the main revenue body. The limited data available prevent any meaningful analysis on a "whole-of-region" basis (Appendix Table A.37). At the level of individual revenue bodies reporting data for most fiscal years displayed, the data for several revenue bodies are quite volatile (e.g., Bangladesh, Georgia, and Uzbekistan). The reasons for this volatility have not been identified.

B. Taxpayer Services

Achieving high levels of voluntary compliance with tax laws is closely linked to the quality of services provided by revenue bodies and the experiences of taxpayers when engaging with them. "Quality" has many dimensions in a taxpayer service context but typically refers to services that are comprehensive, accurate, tailored to the needs of different segments of taxpayers, easy to access and understand, and responsive to taxpayers' needs. International bodies consistently emphasize the importance of revenue bodies delivering high standards of service to improve levels of voluntary compliance by taxpayers and minimize their compliance burden (Boxes 5.2 and 5.3).

Box 5.2: Good Revenue Body Practices to Deliver Services More Efficiently and Effectively

The Tax Administration Diagnostic Assessment Tool field guide draws attention to the following good practices in taxpayer service delivery:

- Provide taxpayers with information through a variety of user-friendly products (e.g., guides, brochures, fact sheets, forms, web pages, frequently asked questions, practice notes, rulings and other written information, media articles, and oral information) and public education programs.
- Customize information to meet the specific needs of taxpayer segments, such as small traders and disadvantaged groups in society (e.g., citizens with literacy or language difficulties).
- Deliver cost-effective services through means convenient to taxpayers. Revenue bodies are adopting service delivery channel strategies (e.g., the internet) to eliminate or shift taxpayer service demand from costly to more cost-efficient service channels.

Box 5.2 continued

- Commit to service delivery standards (e.g., maximum wait times/response times) associated with taxpayer requests for information. These standards are often documented in a taxpayer charter.
- Regularly update information products to reflect changes in the law and administrative procedures and undertaking initiatives to raise taxpayer awareness of the changes.
- Introduce measures to reduce compliance costs for taxpayers (e.g., simplified record-keeping and reporting requirements for small businesses and prefilling of tax declarations).
- Monitor frequently asked questions and errors commonly made by taxpayers to help target and refine information products and services.
- Monitor taxpayer perceptions of service and seek taxpayer feedback on information products and services (such as web page content and layout, and forms design).

Source: Adapted from IMF. 2019. *TADAT: Tax Administration Diagnostic Assessment Tool Field* Guide. Washington, DC: IMF.

Box 5.3: Organisation for Economic Co-operation and Development Forum on Tax Administration—Improving Taxpayer Service Delivery

Increasing Taxpayers' Use of Self-Service Channels (2014). Building on prior work—Managing Service Demand—this report explores the strategies revenue bodies can use to improve take-up of self-service channels in the context of a future service experience for individuals, businesses, and tax intermediaries.

Managing Service Demand: A Practical Guide to Help Revenue Bodies Better Meet Taxpayers' Service Expectations (2013). This report provides guidance on a whole-of-revenue body approach for managing service demand effectively. It sets out a possible "model" for governance arrangements, along with practical steps in the form of a step-by-step framework to support revenue bodies in their efforts to better identify, analyze, and address the causes of service demand. The guide is designed to support all revenue bodies, from those in the early stages of developing comprehensive service programs to those with mature programs.

Source: OECD Forum on Tax Administration

Over the past decade or so, advances in digitalization have presented enormous opportunities for revenue bodies to expand and enrich the range and quality of services they can provide to taxpayers. (Box 5.4 outlines an example from Malaysia.) At the same time, revenue bodies need to be aware of the demands being placed on their limited resources to provide services efficiently and effectively, the costs of those services, and whether opportunities for more efficient service delivery exist. With the tendency toward increased regulation and complexity in tax and other laws, revenue bodies need to closely monitor their service delivery operations to ensure the effective management of service demands.

Box 5.4: Malaysia—the MyTax Service Channel

MyTax is one initiative in the Inland Revenue Board of Malaysia's digitalization effort (the Hasil Transformation Project). Its aim is to provide a one-stop tax information center for taxpayers through a website and mobile applications. It is also the main channel for taxpayers to file their annual electronic forms for taxation and relief. The system was developed in 6 months and opened to the public on 1 November 2020. The crucial factor in MyTax is its presentation of a user experience and interface that are easy for taxpayers to manage. Web-responsive design is utilized in MyTax to provide users with full functions irrespective of the device, the user's behavior, or the environment. Security is also important: MyTax is secured by public key infrastructure for secure internet encryption and authentication for taxpayers.

Box 5.2 continued

As of 30 November 2021, there had been just under 2.7 million visitors to MyTax, and it is projected that usage will grow exponentially over subsequent tax filing seasons. MyTax is also available in the mobile app through three different platforms and is still being enhanced. Modules from the new Hasil Integrated Tax System are being tested for integration with MyTax, allowing e-registration, e-updates, and other e-applications. Taxpayers can also submit their income remittance by uploading data, which will be prefilled in their oncoming tax filing. Furthermore, MyTax will continue to be integrated with other systems, such as e-filing, the Revenue Management System, geolocation functions, online registration verification for taxpayers, and uploading and downloading of e-documents.

Source: OECD. 2022f. *Tax Administration 2022. Comparative Information on OECD and Other Advanced and Emerging Economies.* Paris: OECD (page 85.)

ISORA 2022 and Taxpayer Services

ISORA 2022 sought a limited array of information on revenue bodies' taxpayer service activities, including data on the range and nature of service channels available to taxpayers in FY2021 and related service contact volumes (by channel). ISORA 2022 also sought data on the use of electronic filing, prefilled tax returns, and electronic payment services, which are discussed later in the chapter. Data reported for service contacts are set out in Appendix Tables A.59 and A.60 (Parts 1–5); a few observations are set out in the next section. For service contact volumes, corresponding data for FYs 2018–2021 are provided to assist identify changes or trends in service demand.

Viewed at large, this area of ISORA 2022 was poorly completed by many revenue bodies across Asia and the Pacific. ***Of 41 participating revenue bodies, 12 said they did not monitor service contacts and many others reported service contact data for only one or two service channels***. This situation appears at odds with previous ISORA reporting, where most revenue bodies indicated that they had a taxpayer service and assistance strategy that gave high priority to increasing taxpayers' use of self-service channels through the further deployment of digitized services. The lack of data from many revenue bodies for FY2021 and earlier fiscal years suggests that processes for monitoring service contacts, understanding the drivers of service demand, and evaluating overall service delivery performance may not be receiving the level of attention required to improve overall service outcomes and voluntary compliance. On a positive note, revenue bodies in several economies (e.g., Georgia; Hong Kong, China; and Japan) are known to actively monitor the services delivered to their taxpayers via the different service channels and to account for these activities in considerable detail in their annual performance reports. For further background, readers may wish to access published reports of these revenue bodies.[43]

For revenue bodies reporting data on their service contact channel usage, several trends are clearly apparent:

- The use of digital channels (i.e., online access to taxpayer accounts and/or digital assistance facilities (e.g., virtual assistants and chatbot applications) is increasing and, in the case of several revenue bodies, serving a large population of clients: just over one-third of revenue bodies reported the extensive use such facilities (Figure 5.4 and Appendix Table 60 Parts 1 and 2).

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[43]   Georgia: Service Indicators (page 45 of 2021 Annual Report of Georgia Revenue Service); Hong Kong, China: Taxpayer Services (Chapter 7 of 2022 Annual Report of Hong Kong Inland Revenue Department); Japan: Chapter 2 of 2022 Annual Report of NTA).

Figure 5.4: Meeting Service Demand—Online Taxpayer Accounts, FYs 2018–2021
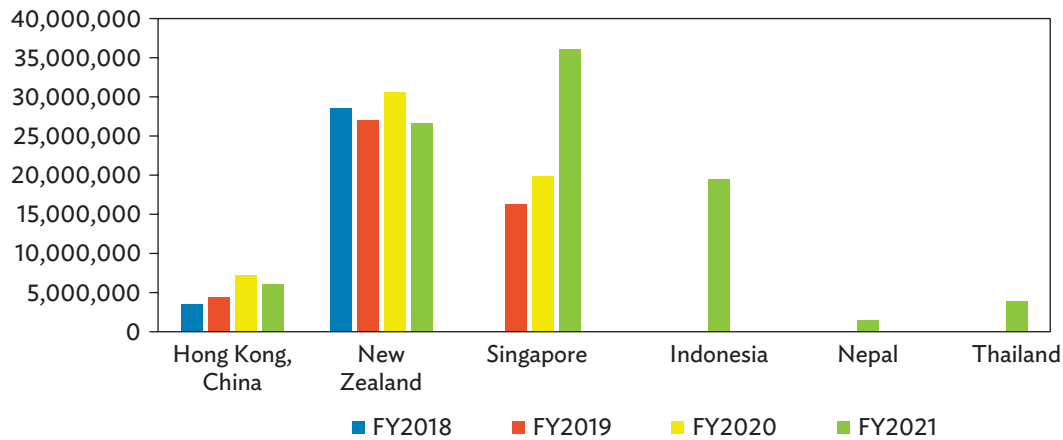
FY = fiscal year.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

- The use of telephone service channels continues to be significant in around 40% of participating revenue bodies; however, experience was mixed in terms of workloads and their trend over FYs 2018–2021. Revenue bodies in Indonesia, Malaysia, New Zealand, and ROK all reported consistently declining volumes over the 4 fiscal years, while revenue bodies in Georgia; Hong Kong, China; and the PRC reported consistently increasing volumes.

- The use of in-person service channels was affected by the pandemic to varying degrees in FYs 2020 and 2021: a general downwards trend is evident for several revenue bodies, including in Australia, where the revenue body has actively expanded and promoted its digital services over the past decade or so, as part of a broader strategy to enhance service delivery while reducing the demand for costly in-person contacts (Figure 5.5). Data from Malaysia's revenue body reflect a similar trend, albeit over a more recent time frame (Figure 5.6).

- The use of e-mail as a recognized channel of service delivery was reported by only around one-third of revenue bodies in FY2021, and only three revenue bodies (Hong Kong, China; the Philippines; and Singapore) reported e-mail contact volumes on a scale that suggested this channel played a significant role in their respective service delivery approach.

Figure 5.5: Australia's In-Person Contacts, FYs 2010–2021
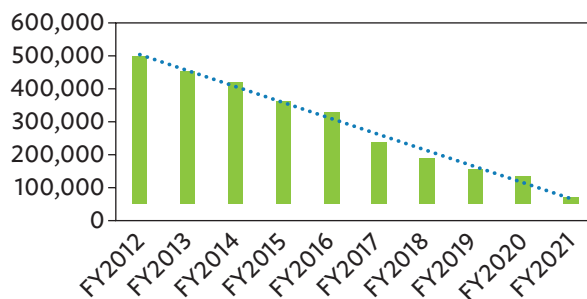
FY = fiscal year.
Sources: OECD Tax Administration Series 2013, 2015, 2017; ISORA 2019; ISORA 2021.

Figure 5.6: Malaysia's In-Person Contacts, FYs 2014–2021

FY = fiscal year.
Sources: OECD Tax Administration 2015, 2017; ISORA 2019; ISORA 2021.

C. Tax Return Filing and Assessment

The processing of tax returns and payments is one of the most basic and important functions that revenue bodies perform. These actions provide the foundational data elements that revenue bodies need to raise assessments, maintain accurate taxpayer accounts, monitor revenue collections, provide refunds of overpaid taxes, detect tax compliance risks, initiate timely enforcement action, and, ultimately, achieve government budgeted revenue targets.

Tax laws typically prescribe the due date(s) for the filing of tax returns for each tax, and revenue bodes are generally responsible for informing taxpayers of return filing requirements in precise terms: (i) when tax returns should be filed, (ii) who should file them, (iii) how taxpayers are able to complete their return filing obligations, and (iv) the sanctions for noncompliance (e.g., interest/penalty).

Subject to the resources available to them, revenue bodies can take steps to prompt the filing of tax returns—for example, by use of mass media to publicize upcoming filing obligations and/or the sending of e-mails and text messages to individual taxpayers—in advance of legislated dates for filing, as well as by designing simplified tax returns that make it easy for taxpayers to comply with their filing obligations (see Box 5.5 for an example from Singapore). Given the importance of meeting government revenue targets, revenue bodies also require effective processes for the timely follow-up of citizens and businesses and citizens who should file tax returns but have failed to do so.

Box 5.5: Singapore—Recent Initiatives to Maximize Voluntary Filing Compliance

The annual report of the Inland Revenue Authority of Singapore (IRAS) for FY2020–2021 highlights several examples of recent initiatives implemented to streamline tax return filing obligations and thereby encourage the timely filing of tax returns, explained below in text extracted directly:

> As part of our COVID-19 support measures, IRAS provided tax filing deadline extensions and tax payment deferrals. We also extended our assistance to those who needed more help, for instance, by allowing taxpayers facing financial difficulties a longer installment plan ... To simplify corporate tax filing, we launched Form C-S (Lite) for companies with annual revenue of $200,000 or below from Year of Assessment (YA) 2020. These companies only need to fill in six essential fields, compared to 18 fields for Form C-S. Close to 49,000 companies benefitted from the simplified form and the lower compliance efforts ... The No-Filing Service (NFS) was extended from employees to the self-employed taxpayers for the first time in (YA) 2021. As a start, this has benefitted about 15,000 eligible commission agents and private hire car drivers who have joined the Pre-filling of Income Scheme. The NFS will be extended to other groups of self-employed taxpayers progressively.

Source: IRAS Annual Report FY2020–2021 (slide 7).

ISORA 2022 sought a limited array of information on tax return filing workloads in FY2021, including data for each of the major taxes (i.e., CIT, PIT, and VAT) on the number of returns expected, filed on time, and received during the fiscal year. Data on the numbers of returns filed using electronic services, including the use of prefilled tax returns for the PIT, were also gathered. Appendix Tables A.38 to A.41, and A.61 and A.62, set out the data reported; the comments that follow set out some important observations. For return filing, and use of electronic services, prefilling services, and electronic payments, corresponding information for prior fiscal years is also displayed, to help identify any changes or trends.

Return Filing Workloads for the Major Taxes

Analysis of ISORA data on return filing volumes reported for the major taxes is hindered by the absence of multiyear data for quite a few economies and several unexplained and unusually large (mainly positive) increases in the volumes of returns received in FYs 2020 and 2021 compared with FY2019.

From the data available, the onset of the COVID-19 pandemic in FY 2020 and its continuation into FY2021 does not appear to have had a significant negative impact on the volumes of returns filed in most economies in Asia and the Pacific. Only five economies (Maldives, Solomon Islands, Sri Lanka, Thailand, and Timor-Leste) reported significant reductions in the volumes of returns received in FY2020 and FY2021, in the main affecting both CIT and PIT (Appendix Table A.41). In the case of Maldives, there are some unique circumstances that explain the reduction in return filing volumes.[44] On the other hand, some extreme positive changes are evident for a few economies (Armenia, Azerbaijan, Fiji, India, Mongolia, the Philippines, Timor-Leste, and Uzbekistan). The factors that might explain these increased volumes have not been identified at the level of individual economies, although it is possible that they include policy and administrative changes associated with the impacts of the pandemic and data errors and inconsistencies in their compilation between different fiscal years.

Electronic Filing

Systems of electronic filing present significant benefits for both taxpayers and revenue bodies, providing increased accuracy of data capture and computations when preparing tax returns, quicker processing of returns by the revenue body, the potential for more timely refunds to taxpayers of overpaid taxes, and more systematic and timely risk assessment of taxpayers' returns.

Multiyear ISORA data on the use by revenue bodies of electronic filing of tax returns for the major taxes are set out in Appendix Tables A.61 and A.62. Table 5.1 presents aspects of the data in summary form.

Table 5.1: Uptake of Electronic Filing for the Major Taxes, FY2017 and FYs 2019–2021

Tax Type	Revenue Bodies Achieving Rates of Electronic Filing over 50% (number and % of those reporting by tax type)			
	FY2018	FY2019	FY2020	FY2021
CIT	20 of 33 (61%)	19 of 30 (63%)	17 of 29 (59%)	26 of 36 (71%)
PIT	18 of 32 (56%)	18 of 29 (62%)	16 of 28 (57%)	22 of 35 (63%)
VAT	19 of 27 (70%)	15 of 21 (71%)	16 of 26 (62%)	22 of 33 (67%)

CIT = corporate income tax, FY = fiscal year, PIT = personal income tax, VAT = value-added tax.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

As is evident from the data presented, over 50% of participating revenue bodies achieved rates of electronic filing exceeding 90% for all the major taxes in FY2021. The picture presented is one of consistently growing rates of electronic filing for CIT and PIT, while the trend is uneven for VAT. Beyond this group of revenue bodies, others continued to increase the use of electronic filing, and their efforts are resulting in rapidly growing rates of usage as seen, for example, in Bhutan (CIT and PIT), the Cook Islands (all taxes), Japan (all taxes), Maldives (all taxes), Sri Lanka (all taxes), and Thailand (CIT).

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[44] Maldives had a business tax profit regime until 2019 (which did not include employment income). In 2020, with the enactment of the Income Tax Act, tax from remuneration came within its purview and tax returns for businesses operating as sole proprietorships were transferred from the CIT to the PIT registry. As a result, the population of returns for CIT reduced.

Prefilling of Tax Returns

A more advanced form of tax return preparation is the concept of prefilled tax returns. Originating in Scandinavian economies in the early 2000s in preparing PIT returns, prefilling has evolved significantly over the past 2 decades for income tax assessment purposes and, to a lesser extent, for VAT. For ISORA, prefilling is examined in the context of its use for PIT returns and assessments.

Briefly stated, prefilling involves the preparation by revenue bodies of tax returns for taxpayers using income and other tax-related data obtained from a variety of third parties (e.g., employers, financial institutions, and public companies) and other data held by them. ***In its most advanced form, prefilling enables revenue bodies to prepare tax returns that contain all the data required to complete a formal assessment for some taxpayers***. In such cases, and operating under the principles of taxpayer self-assessment, taxpayers receiving prefilled returns need only review the information contained in the return received by them and confirm its accuracy or, if needed, provide the additional information needed to produce an accurate assessment. Systems for prefilling tax returns are particularly attractive to revenue bodies where there is a progressive income tax system supported by a tax policy framework that enables the prediction of taxpayers' entitlements to relevant tax credits, rebates, and deductions, and where there are extensive third-party reporting obligations, use of a high integrity taxpayer identifier for most taxpayers, and a relatively large numbers of individuals required to file an annual tax return.

Tables 5.2 and 5.3 set out ISORA data on the types of income, deductions, and other data elements that are prefilled in taxpayers' returns, in addition to taxpayers' personal identity information. Significantly, revenue bodies in a few of the economies reported (e.g., Mongolia; New Zealand; Singapore; and Taipei,China) have developed their prefilling capability to the point where all the data required to prepare a fully completed tax return are available for most taxpayers, resulting in a significant reduction in the time and effort required of them to finalize their tax returns.

Table 5.2: Prefilling of Personal Income Tax Returns—Income Types and Prefilling Rates, FY2021

| Region/Economy | Categories of Data Prefilled in Personal Income Tax Returns | | | | | | % of Returns Prefilled | |
	Wages/ Salaries	Pensions	Interest Income	Dividend Income	Gains/ Losses	Other Income	Fully	Partially
Australia	✓	✓	✓	✓			1	33
China, People's Rep. of	✓					✓	...	...
Cook Islands	✓	✓	✓				...	...
Hong Kong, China	✓	✓					0	27
Korea, Rep. of	✓	✓	✓	✓		✓	33	66
India	✓	✓	✓	✓			0	7
Indonesia	✓	✓					...	...
Malaysia	✓						...	99
Maldives							...	...
Mongolia	✓		✓	✓		✓	50	50
New Zealand	✓	✓	✓	✓		✓	48	...
Philippines			✓				0	...
Singapore	✓	✓		✓		✓	81	18
Taipei,China	✓	✓	✓	✓		✓	26	0
Thailand							0	39
Uzbekistan	✓		✓	✓		✓	4	0

... = not data at cut-off date, ✓ = relevant; FY = fiscal year.
Source: ISORA 2022.

Table 5.3: Prefilling of Personal Income Tax Returns—Other Tax-Related Data, FY2021

Region/Economy	Categories of Other Third-Party Data Prefilled in Personal Tax Returns							
	Donations and Gifts	School etc. Fees	Childcare Expenses	Certain Insurance Premiums	Health/ Medical Expenses	Pension/ Retirement Savings	Loan/ Mortgage Interest	Other Expenses
Australia					✓			
China, People's Rep. of	✓	✓	✓	✓				✓
Cook Islands								
Hong Kong, China								
Korea, Rep. of	✓	✓	✓	✓	✓	✓	✓	
India								
Malaysia		✓		✓	✓			
Maldives						✓		
Mongolia								
New Zealand								
Philippines								
Singapore								✓
Taipei,China	✓	✓	✓	✓	✓		✓	✓ ª
Thailand	✓			✓		✓		✓
Uzbekistan								

... = not data at cut-off date, ✓ = relevant.

ª Includes childcare expenses.

Source: ISORA 2022.

Timely Filing of Tax Returns

The timely filing of tax returns is one of the four basic obligations applying to all taxes (the others being registration, the correct reporting of information in tax returns, and the timely payment of assessed taxes). Failure by taxpayers to file their returns on time can contribute to delays in the collection of revenues owing to government and may impede the efficient conduct of other government processes that rely on tax return data (e.g., collection of student loans, cross-checking with welfare obligations). As a result, it is important for revenue bodies to achieve high levels of timely filing. Where large numbers of taxpayers fail to file returns as required, revenue bodies must divert scarce resources to enforcement actions that can prove costly and delay the collection of taxes.

To establish an incidence of timely filing for the major tax return types, the current ISORA methodology contrasts two data elements: (i) the number of returns filed on time—an objective measure, and (ii) with an estimate of the expected number of returns that should be filed for a specific fiscal period (normally a year for income taxes)—a partly subjective estimate based on factors decided locally.

ADB does not rely on the computations of timely filing determined applying the ISORA methodology, owing to underlying reservations regarding the methodology and the comparability of the data reported. The ISORA methodology to compute timely filing is also different from the approach adopted by some revenue bodies that make their own computations of late filing using objective data elements for each tax type: (i) the number of returns filed on time within the fiscal year, and (ii) the total number of returns filed in the fiscal year. The authors consider that this latter method is more useful for administrative purposes as it is not subject to estimation error

and relies only on relevant objective data and takes account of very late-filed returns. For these reasons, it is considered more reliable for international comparative purposes.[45]

Data reported on the on-time filing of tax returns for the major tax types in FYs 2019–2021 are set out in Appendix Tables A.38 to A.40. These tables highlight the concerns raised in the preceding paragraph: (i) around 25% of revenue bodies reported no data, suggesting that this aspect of compliance is not closely monitored; (ii) several revenue bodies reported identical volumes for both "number of returns filed on time" and "total number of returns received" in the year, raising doubts as to the monitoring undertaken and/or data accuracy; and (iii) several revenue bodies reported volumes of "returns filed on time" that exceeded the "total number of returns filed," again pointing to data integrity issues.

Processing of VAT Refunds

VAT systems are a prominent feature of the tax system in many economies in Asia and the Pacific, seen in 32 of the 41 economies surveyed, and for many raising a substantial proportion of government tax revenue (Appendix Table A.6).

Most economies have adopted a legislative framework where liability to VAT is based on application of the invoice–credit method on a transactional basis. As described by the IMF,[46] the invoice–credit method is a transaction-based approach that requires sellers along the value chain to provide invoices to their buyers showing the amount of VAT paid on a given transaction. Buyers are then able to credit the tax paid as shown on such invoices against VAT that is collected on their own sales. For most businesses in an economy, there is a positive difference between the amounts collected on their sales and the amounts paid on their purchases in each liability period, resulting in a net amount of VAT payable to the revenue body when returns are filed. However, for some businesses, their circumstances can result in a situation where there is an excess of VAT credit (i.e., the total amount paid for purchases exceeds the amount collected on sales) for a liability period, and they become entitled to a refund of their excess VAT credits.

The timely refund of excess VAT credits to taxpayers has proved a problematic feature of VAT systems in many economies over the years. Weaknesses in a revenue body's refund and risk detection mechanisms, especially when accompanied by limited verification and enforcement capacity, result in conditions that are attractive to fraudsters. Unless there are processes in place for the systematic and timely detection of fraudulent claims, there is a risk of significant revenue losses that may prove difficult to recover once a fraudulent claim has been detected. As a result, many revenue bodies have implemented policies that, while designed to reduce the incidence of fraudulent refunds, also restrict the timely refund of excess VAT credits to legitimate claimants (see example in Box 5.6).

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[45] These concerns have been raised with ISORA partners and it has been agreed that all data-gathering concerning aspects of return filing are to be redesigned for ISORA 2023, including computation(s) for filing on time.
[46] IMF Tax Policy Assessment Framework database (accessed 31 March 2023).

Box 5.6: Georgia Revenue Service—Automated VAT Refund System

By the end of 2015, there was a significant amount of value-added tax (VAT) credit accumulated in the Georgia government accounts. While it was possible for taxpayers to have excess VAT credits offset to cover tax arrears, the general policy in place meant that a full-scale tax audit was required for every cash VAT refund claim. As a result, most taxpayers would choose not to claim VAT refunds in order to avoid related audit costs, while at the same time, in the case of legitimate businesses, being deprived of money that could help them grow.

Phase I: Partially Automated VAT Refund System

In 2019, a Finance Minister's Decree introduced an automated VAT refund system. According to the Decree, VAT returns claiming deductions would be processed through automated risk assessment tools, and, where no risk was detected, the claimed VAT amount would be transferred to a so called "Green Card" account. This was an account allowing taxpayers to manage their excess VAT credit according to their preferences; they could either get the money refunded or offset it against other tax arrears. If the taxpayer chose repayment, the claimed amount was transferred directly to the taxpayer's bank account within 1 working day. When the system was introduced, taxpayers were still nervous about requesting a VAT refund. According to revenue service (RS) data, 72% of surveyed taxpayers would refuse to claim a refund and, as a result, would deprive themselves of the opportunity to expand their businesses.

Phase II: Fully Automated VAT Refund System

In November 2020, a fully automated VAT refund system was introduced to stimulate economic growth by increasing the cash flow of businesses. The new system covered VAT returns filed from January 2019 and was fully operational for FY2021. The system subjects all VAT returns to automated risk screening and, where no risk is detected, any excess VAT credit is automatically transferred to the taxpayer's bank account. A critical step in the screening process undertaken is validation. Through the validation process, RS identifies any mismatches between the data provided by the taxpayer through the VAT return form and data available on the RS database (including from the e-invoicing system). The purpose of validation is to uncover any errors in VAT return forms and to improve the compliance culture of taxpayers. When an error is detected, taxpayers are contacted and requested to correct their VAT return error by a certain deadline. According to RS, in most cases when VAT errors are detected, taxpayers welcome the opportunity to correct their mistakes. As a result, only 3% of VAT returns end up being audited. The e-invoicing system, introduced and made mandatory some years ago in Georgia, is very useful for data cross-matching data in this process.

The switch to a fully automated refund system was backed by a strategic approach that included additional financial and human resources, tax legislation changes supporting the new system, and organizational changes involving the establishment of two dedicated units, one for the audit of high-risk VAT returns and another responsible for outreach to taxpayers asked to correct filed VAT returns. The automated VAT refund system has created a step change for Georgian businesses, and the freed-up cash has reduced the need for bank loans. The following data illustrate the drastic change between 2020 and 2021:

- January 2020–August 2020: 7,480 claims paid, totaling GEL493 million;
- January 2021–August 2021: 113,475 claims paid, totaling GEL1,158 million.

Lessons Learned

The combination of a well-functioning risk management system, an electronic tax administration system with multichannel data collection capacity, a strategic and step-by-step approach, timely legislative and corporate support, and awareness-raising campaigns assured a smooth transformation from the previous cost- and time-bound refund system that led to distrust among taxpayers. The new refund system is simple, time-efficient, and business-friendly. This transition has been supported by data from a mandatory e-invoicing system and other available electronic data, which have been essential to enacting the system. It has also made it possible to analyze data in a faster way and eliminate potential VAT fraud risks.

Source: OECD and Georgia Revenue Service, November 2021.

ISORA 2022 sought limited information on revenue bodies' administrative policies for the processing of VAT refunds and VAT systems in general; relevant data can be found in Appendix Tables A.8 (Parts 1 and 2), A.43, and A.64. Table 5.4 provides a summary view of the administrative policies for processing approved VAT refunds and other relevant characteristics.

Table 5.4: Administrative Policy for VAT Refunds across the Region, FY2021

Administrative Policy Options for Processing Approved VAT Refunds	Number of Revenue Bodies		Average VAT Refunds/ Total VAT Revenue (%)		Average Corruptions Perception Index[a] 2022
	Applying This Policy Option	Mandating E-Invoicing Mechanism	FY2020	FY2021	
A. Refunds are paid out automatically (or offset against tax debts) immediately, or within a short time frame	12	6	25.8	25.3	54.6
B. As in option A, refund is paid, subject to available funds	4	2	28.0	22.3	48.7
C. Refunds are credited to the taxpayer's account, until such a time as the taxpayer may legally request a refund	14	8	12.7	8.6	34.0
D. As in option C, refund is paid, subject to available funds	2	2	1	0	27.0
E. Other approaches (e.g., credits must be carried forward as an asset)	1	1	0	0	33.0

FY =fiscal year; VAT = value-added tax.

a The Corruption Perceptions Index scores determined and published by Transparency International are on a scale of 0 (highly corrupt) to 100 (very clean). Appendix Table A.2 (Part 2) displays the values determined for surveyed economies.

Sources: ISORA 2021; ISORA 2022.

As evident from the data reported, over half of participating revenue bodies administer their VAT systems with a restrictive form of refund policy (i.e., options C, D, or E) that is designed primarily to protect the revenue from fraudsters and other practices that result in illegitimate refunds of excess VAT credits. In the main, these are economies where the incidence of corrupt behavior tends to be high, and internal system controls are susceptible to attacks. A downside to these approaches is that they inevitably impede the payment of refunds in a timely manner to legitimate refund claimants, adding to their compliance burden and reducing their levels of confidence in the revenue body and government more generally.

The reported data also demonstrate that some revenue bodies can administer a more business-friendly/ traditional approach (i.e., options A or B), even though, for some, this entails a relative high incidence of VAT refunds (e.g., in FY2021, 51% in Australia, 30% in Fiji and Georgia, 29% in New Zealand, and 48% in Singapore). Past reports and studies show that revenue bodies in these situations will typically have established effective risk detection methods and well-designed deterrent strategies, supported by dedicated resources to systematically examine "at-risk" claims for VAT refund as they arise.

D. Tax Payment Processes

Electronic Payments

The payment of taxes constitutes one of the most common forms of interaction between taxpayers and revenue bodies. This is especially the case for businesses that are required to make regular payments to revenue bodies to meet their various obligations under tax laws (e.g., wage withholdings, VAT, and income tax advance payments and assessments). Over many decades, and in collaboration with financial institutions and the banking sector at large, it has become common practice for revenue bodies to offer taxpayers access to a broad range of payment methods, including (1) direct debiting, (2) direct crediting, (3) internet banking, (4) phone banking, (5) payments via credit card and automated teller machine devices, and (6) payments made at convenience stores and other agents (e.g., banks). Box 5.7 briefly outlines an initiative of Japan's NTA to promote the use of cashless payments. Across the population of participating revenue bodies, these payment options are supplemented to varying degrees in practice by traditional (nonelectronic) payment methods such as mailed cheques and payments made in person at tax offices, both of which require the use of revenue bodies' resources for processing purposes.

Box 5.7: Japan's National Tax Agency—Promoting Cashless Payments

Japan's National Tax Agency is actively promoting use of a diverse (largely cashless) set of payment methods to enhance taxpayer convenience. These include payments using online, direct transfer, and internet banking services, as well as payment by credit card and payments at convenience stores. A smartphone payment application was planned for introduction by December 2022. Authorities have set a target for cashless payments of 40% by FY2025, and report on their progress in the annual performance report (Table 5.5).

Table 5.5: Japan's National Tax Agency—Tax Payment Methods

| Fiscal Year | Payment Methods (% of transactions) | | | | **TARGET FOR CASHLESS PAYMENTS:** |
	Counters of Financial Bodies	Convenience Stores	Counters of Tax Offices	Cashless/Online Payments	
FY2021	…	…	…	32	
FY2020	64	4	2	29	40% by FY2025
FY2019	67	5	3	26	

FY = fiscal year.
Sources: ISORA 2022; Annual Reports of Japan's NTA 2020 and 2021.

The current ISORA methodology applies a broad definition to what constitutes an "electronic payment" and includes at the aggregate level categories (1) to (6) of the payment options identified in the preceding paragraph. In line with this methodology, the survey data gathered are limited to the total number and value of transactions received by a revenue body over the course of a fiscal year. These data are set out in Appendix Table A.63 and by their nature limit the observations that can be made on the types of individual payment options that revenue bodies provide and their respective rates of usage by taxpayers.

For FY2021, the ISORA data indicate that only around 60% of revenue bodies appear to track the usage of electronic payments and that, for most of these revenue bodies, the bulk of payment transactions are processed using "electronic methods." At the aggregate level, there appears to be a trend of increased reporting by revenue bodies and rising use of electronic payments; however, is not possible to make more detailed observations in the

absence of data on the precise payment methods being used in practice. From the data summarized in Table 5.6, it can be seen that there has been a steady increase over the 4 years up to FY2021 in both the numbers and the value of payments reported as "electronic."

Table 5.6: Uptake of Electronic Payment Options, FYs 2018–2021

Measure	Number of Revenue Bodies (% of total reporting)			
	FY2018	FY2019	FY2020	FY2021
Revenue bodies reporting over 80% of payment volume received electronically	9 (43%)	9 (43%)	13 (48%)	15 (60%)
Revenue bodies reporting over 80% of payment value received electronically	8 (40%)	10 (50%)	14 (54%	15 (60%)

FY = fiscal year.
Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Given the relatively large number of revenue bodies in Asia and the Pacific that have participated in use of the IMF's TADAT, it is worth noting that, for its evaluation purposes, TADAT applies a somewhat narrower definition to the types of payment options that are to be considered "electronic."[47]

> An electronic payment is one which is made from one bank account to another via electronic means without the direct intervention of bank staff or the tax administration. Methods of electronic payment include digital payments, credit cards, debit cards, and electronic funds transfer (where money is electronically transferred via the Internet from a taxpayer's bank account to the Treasury account or, in the case of tax refunds, from the Treasury account to a taxpayer's bank account). Electronic payments may be made, for example, by mobile telephone where technology is used to turn mobile phones into an Internet terminal from which payments can be made.

Readers should be aware that this difference in methodologies between ISORA and TADAT may result in substantially different rates of electronic payment being displayed in respective ISORA and TADAT reporting, where applicable, for some economies. This will arise in the situation where there is a heavy reliance on the use of collection agents (e.g., banks) that accept in-person payments of taxes that TADAT, but not ISORA, deems to be "nonelectronic."

E. Post-Filing Verification Activities

Revenue bodies are increasingly looking to shift their interventions upstream, focusing on preventative approaches intended to limit the opportunities for taxpayers to make errors or deliberate omissions when filing their tax returns. A long-standing approach, which has proved particularly powerful in influencing reporting compliance, is sometimes referred to as "visibility."[48] Figure 5.7 illustrates the impact of varying levels of visibility on both the underreporting tax gap and the percentage of income that is misreported within various categories of income. The impacts of low levels of visibility are apparent, with over 50% of income in the least visible category being misreported. These approaches are relatively simple to implement, although legislative support may be required, and governments are strongly encouraged to consider opportunities to strengthen third-party reporting and withholding systems.

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[47]   IMF. 2019. TADAT: *Tax Administration Diagnostic Assessment Tool Field Guide*. Washington, DC: IMF (page 131, Glossary of Terms).
[48]   The term "visibility" is used to describe the extent to which the income or deductions are subject to third-party reporting and withholding.

Figure 5.7: Effect of Information Reporting on Taxpayer Compliance

Source: Internal Revenue Service. 2012. Federal Compliance Research: Tax Gap Estimation.
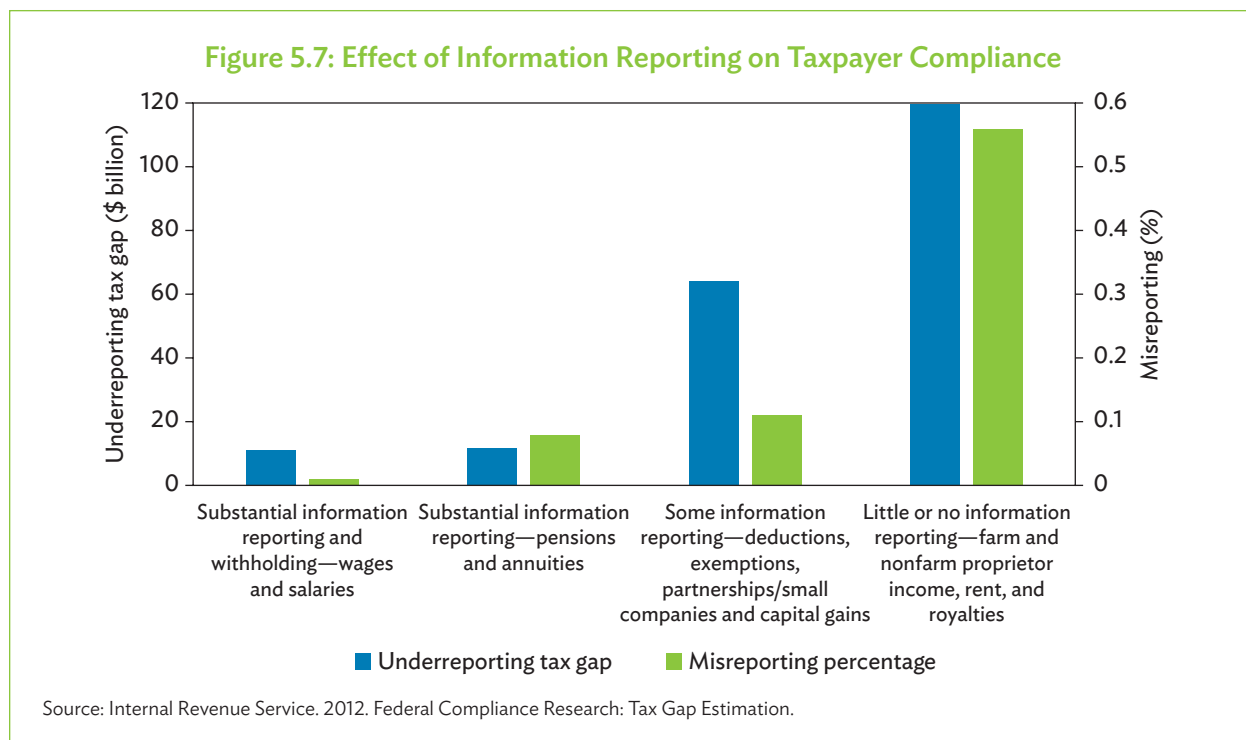
With advances in data science techniques, it is now feasible to supplement preventative policy measures with administrative interventions that can be targeted toward those more likely to underreport and personalized to reflect individual circumstances.

When preventative interventions fail, revenue bodies must turn to a range of corrective interventions. In the post-filing environment, revenue bodies typically conduct many activities to verify taxpayers' compliance with laws. The primary one is most often described by the term "audit." In ISORA, the term "audit" is used to include (i) comprehensive audits (multiple tax and multiple year), (ii) single-issue audits, (iii) inspections of books and records, (iv) examinations of VAT refund claims, and (v) in-depth investigations of suspected tax fraud. The term "verification" is broader, including all steps commonly undertaken by revenue bodies to check that taxpayers have accurately reported tax liabilities. However, it does not include revenue body activities to secure the filing of outstanding tax returns and the associated amounts of tax.

Across revenue bodies, audit activities vary in their scope and intensity, and indeed in the precise nature of actions officials take that are deemed to constitute audit and verification. Revenue bodies also conduct various other activities (e.g., in-depth fraud investigations, phone inquiries, computer-based matching and mathematical checks, and inspections of books and records) that are intended to check the accuracy of reported liabilities and can result in changes, either initiated by the taxpayer or by the revenue body.

Post-filing interventions are typically the most expensive and the least successful in shifting voluntary compliance levels. No doubt, where taxpayers perceive a very high likelihood of detection (high visibility), reporting compliance is improved. However, in the absence of a strong third-party reporting and withholding regime, an approach based largely on post-filing correction and the deterrence effect of the audit adjustments and penalties is unlikely to have significant ongoing behavioral impacts.

ISORA and Post-Filing Verification Activities

ISORA 2022 sought a limited array of information on revenue bodies' verification (including audit) activities: (i) staff resource allocations (measured in full-time equivalents [FTEs]) devoted to verification work, and (ii) data on the volumes of completed verification actions and the value of taxes and penalties arising from amended assessments (in aggregate and for each of the major taxes). Appendix Tables A.11 and A.49 to A.52 set out the data reported, along with corresponding data for FY2019 and FY2020, and computations of related performance indicators.

Staff Resources for Verification Activities in FY2021

Staff resource allocations reported for the main tax functions in FY2021 are set out in Appendix Table A.11 and discussed in detail in Chapter 6. At the aggregate level, the allocations for verification activities—measured in terms of FTE usage as a proportion of overall staff FTEs for tax administration—were in line with historical data, averaging 25% (as in FY2020 and FY2019). That said, there was significant variability in the share of resources allocated to verification work across participating revenue bodies, ranging from 7% in Tajikistan to over 60% in the Philippines. Eleven revenue bodies reported allocations below 20%. While there is no formulaic approach to determine an optimal allocation for key functions such as verification, and circumstances will vary from economy to economy, allocations below 20% are generally unlikely to be sufficient to support a balanced and effective program of verification activities across all taxes administered. Extremely high allocations may be indicative of an underdeveloped approach to risk differentiation and a limited array of compliance interventions.

Verification Outputs (Including Impacts of the COVID-19 Pandemic)

For some revenue bodies, there were many gaps in the reporting, which limited the scope for comprehensive analysis of verification outputs across the region. However, it is clear that many revenue bodies curtailed or reduced the scope of their verification activities in FY2020, and many continued the reduced levels of verification activity into FY2021, owing to the onset and continued impact of the COVID-19 pandemic.

Around two-thirds of revenue bodies experienced a decline in the number of completed cases in FY2020. Of those revenue bodies reporting reduced numbers of verification cases in FY2020, around half reported that the numbers had returned to or exceeded pre-COVID levels in FY2021. The rest reported that levels had remained steady or declined further in FY2021 (Appendix Table A.49).

Data reported on the additional taxes and penalties levied on assessment following verification actions indicate that over half of the revenue bodies providing details of the value of adjustments experienced overall reductions in FY2021 compared with FY2020.

Reporting on the additional taxes and penalties levied on assessment because of verification actions in FY2021 also revealed a small number of revenue bodies for which the trend in the total value of assessments raised has exceeded 10% of reported net revenue collections: Georgia, Malaysia, Nepal, and Pakistan. Revenue bodies in Brunei Darussalam, India, Indonesia, the Kyrgyz Republic, Mongolia, and Solomon Islands have also reported isolated incidents over 10% in recent years. While not researched with the revenue bodies concerned, this outcome seems likely to be the result of a few unusually large assessments resulting from audit inquiries dealing with complex tax issues.

Over 20% of revenue bodies did not report results of all verification activities for FY2021, for reasons that have not been identified. With verification constituting an integral part of a revenue body's strategy for improving taxpayers' compliance, it is concerning that so many revenue bodies do not appear to have a sufficiently comprehensive system of management information in place to guide their oversight of this area of administration.

F. Dispute Resolution

When revenue bodies review and adjust taxpayers' tax returns or provide rulings on specific issues in response to taxpayers' requests, taxpayers should be entitled to a review if they disagree with the decisions made. For this reason, establishing a review process for a revenue body's decisions before judicial recourse is taken is generally regarded as leading to more efficient dispute resolution, benefiting taxpayers, revenue bodies, and governments. Useful guidance on good practices in the administration of tax disputes can be found in the IMF's TADAT field guide published in April 2019.

ISORA and Dispute Resolution

ISORA 2022 sought a limited array of information on revenue bodies' dispute resolution arrangements and activities, including on aspects of the legislative framework in place and work volumes concerning internal reviews of disputes, independent external reviews of disputes, and independent reviews by higher appellate courts. Details of the data reported are set out in Appendix Tables A.54 to A.58 and include corresponding volumetric data for FYs 2018–2021.

Legislative Frameworks

From the data reported, there is considerable uniformity in the legislative frameworks established for dealing with taxpayers' disputes, including complaints concerning administrative actions (Appendix Table A.54). Only two revenue bodies (Samoa and Solomon Islands) reported no recognized mechanism for handing taxpayers' complaints, while all revenue bodies reported that taxpayers generally had access to an internal administrative review process to resolve disputed tax issues. With few exceptions (the Lao PDR and Tajikistan), revenue bodies reported that taxpayers may seek review by an independent external body and/or a higher appellate court. In over 85% of jurisdictions, taxpayers wishing to dispute decisions on tax issues must, in the first instance, seek an internal review by the revenue body.

Program Activities and Dispute Levels

ISORA seeks to assess workloads associated with tax disputes using data on internal reviews and independent reviews by external bodies and higher appellate courts. While there have been some improvements in ISORA reporting, the gaps remaining hinder comprehensive analysis in some areas (Appendix Tables A.55 to A.58).

Appendix Table A.55 sets out reported workloads for internal reviews. This aspect of tax administration is well reported and reveals no clear pattern in changes in dispute case numbers or any clear relationship with verification case numbers in FY2020 or FY2021. Around half of revenue bodies reported reduced workloads compared with FY2020, with the other half reporting steady levels or increases. Pakistan reported a very significant reduction, the reasons for which have not been identified.

Appendix Table A.56 sets out workloads on independent reviews reported by external bodies. The data reveal less volatility compared with internal review workloads. Appendix Table A.57 summarizes higher appellate court workloads. In brief, the data provided here are less comprehensive and, where reported, typically involve relatively small work volumes. As revenue bodies reported limited data for each of the four fiscal years, it is not possible to comment comprehensively on trends in work volumes.

ISORA also seeks to identify the degree to which cases referred to higher appellate courts are generally resolved in favor of the revenue body (i.e., where the revenue body has been successful in more than 50% of the issues

contested). Case resolution rates favoring revenue bodies computed for each fiscal year over the period 2018–2021 reveal a fair degree of volatility from one year to the next (Appendix Table A.57). That said, it is apparent that a few revenue bodies (i.e., New Zealand, Singapore, and Tajikistan) consistently experienced favorable outcomes in over two-thirds of cases over FYs 2018–2021.

G. Enforced Debt Collection

The due date(s) and basis for calculation of tax liabilities are typically prescribed in tax laws, often within a separate tax administration act, which has the advantage of providing a consistent administrative framework across tax types. In addition to formally notifying taxpayers of amounts owed, revenue bodies are generally also responsible for providing information to taxpayers about procedural matters: (i) when the taxes should be paid, (ii) who is liable to pay them, and (iii) how payments can be made. Tax laws generally provide for an interest sanction for late payment and, in some cases, a penalty, where tax debts are not paid by the due date.

Increasingly, revenue bodies are exploiting advances in the fields of data and behavioral sciences to enhance both service offerings and enforcement approaches. In debt management, payment outcomes may be significantly improved through the design and targeting of more personalized collection interventions, both before and after the due date.

For example, the IRBM in Malaysia has developed the Tax Collection Optimizer Solution and the Statistical Package for Social Sciences, both of which are analytics packages used to guide choices about the optimal collection approaches in each case. They use data science (predictive modelling and profiling tools) and behavioral science (insights) to identify common characteristics of certain cases and recommend Next Best Actions (NBA) based on the success, or otherwise, of these approaches in cases with similar demographic and behavioral profiles. The selection of recommended NBAs is also informed by taxpayer risk factors, including compliance history and responses to previous debt collection and enforcement interventions. Cases are allocated to one of six main collection flow models that vary in intensity and time frames for action.[49] Similar NBA approaches have been adopted in other economies, including Australia and Singapore. This topic is addressed in more detail in Chapter 4.

Features of tax system design and administration that may contribute to achieving higher levels of on-time tax payment and, where necessary, more effective arrears collection are outlined in several publications, including an *Governance Brief*,[50] the IMF's TADAT field guide,[51] and the OECD FTA's work on tax debt management.[52]

ISORA and Enforced Debt Collection

ISORA 2022 sought a limited array of operational information about resources applied to debt management as well as the amounts and breakdown of tax arrears for FY2021, including data on (i) the aggregate year-end value of all tax arrears and tax arrears for each of the major tax types, (ii) the value of aggregate arrears considered to be uncollectible, (iii) tax arrears of state-owned enterprises, and (iv) the overall numbers of staff (measured in FTEs) assigned to debt collection activities.[53]

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[49]   ADB paper presented to the Strategic Workshop on Innovative Tax Administration. 2023. Awaiting publication.
[50]   A. Chooi. 2023. Mobilizing Revenue: Emerging Approaches to Managing and Collecting Tax Debt to Improve Tax Payment Compliance. *The Governance Brief*. Issue 49. Manila: ADB.
[51]   IMF. 2019. *TADAT: Tax Administration Diagnostic Assessment Tool Field Guide*. Washington, DC: IMF (page 73).
[52]   See OECD. 2019c. *Tax Debt Collection Maturity Model*. Paris: OECD; OECD. 2019d. *Successful Tax Debt Management: Measuring Maturity and Supporting Change*. Paris: OECD.
[53]   Total/aggregate tax debt is defined for ISORA as "the total amount of tax debt (including any interest and penalties) and debt or other revenue for which the tax administration is responsible, that is overdue for payment. The total should include amounts of tax arrears that are disputed, subject to payment arrangements or extensions of time to pay."

Details of the data reported are set out in Appendix Tables A.11 and A.44 to A.48 and discussed in the following section. The tables also show corresponding tax arrears-related data for FYs 2018–2021 to help identify any trends/changes in overall debt levels, including the extent to which the COVID-19 pandemic affected debt levels in FY2020 and FY2021.

As observed in previous editions of this series, there continue to be many gaps in reported data concerning the size and composition of revenue bodies' debt inventories. This suggests weaknesses in debt recovery case management practices and/or the technology systems being used to support debt collection activities. These deficiencies appear particularly prominent for many economies in South Asia and the Pacific Island regions.

Program Activities and Debt Levels

Debt Levels and Changes between FY2019 and FY2021

Many revenue bodies experienced significant declines in their tax revenue collections in FY2020 compared with FY2019, following the onset of the COVID-19 pandemic. However, for FY2021, most revenue bodies reported some recovery and positive revenue growth (Appendix Table A.4). Despite strengthening revenue performance, tax arrears continue to grow across many reporting economies.

Across the 32 revenue bodies that reported tax debt data for both ISORA 2020 and ISORA 2021, 21 experienced increases in aggregate debt (in absolute terms), including six where the increase exceeded 20% and three where it exceeded 40%. The relative growth in FY2021 in tax debt inventories was greatest in the Kyrgyz Republic, Nepal, and Uzbekistan, with the greatest declines in Palau and Tonga (Figure 5.8).

Figure 5.8: Year-End Aggregate Tax Arrears, FYs 2019–2020 and 2020–2021
(% change)

FY = fiscal year, Lao PDR = Lao People's Democratic Republic.
Notes: The chart excludes the Kyrgyz Republic and Nauru, where year-on-year increases exceeded 600%.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.
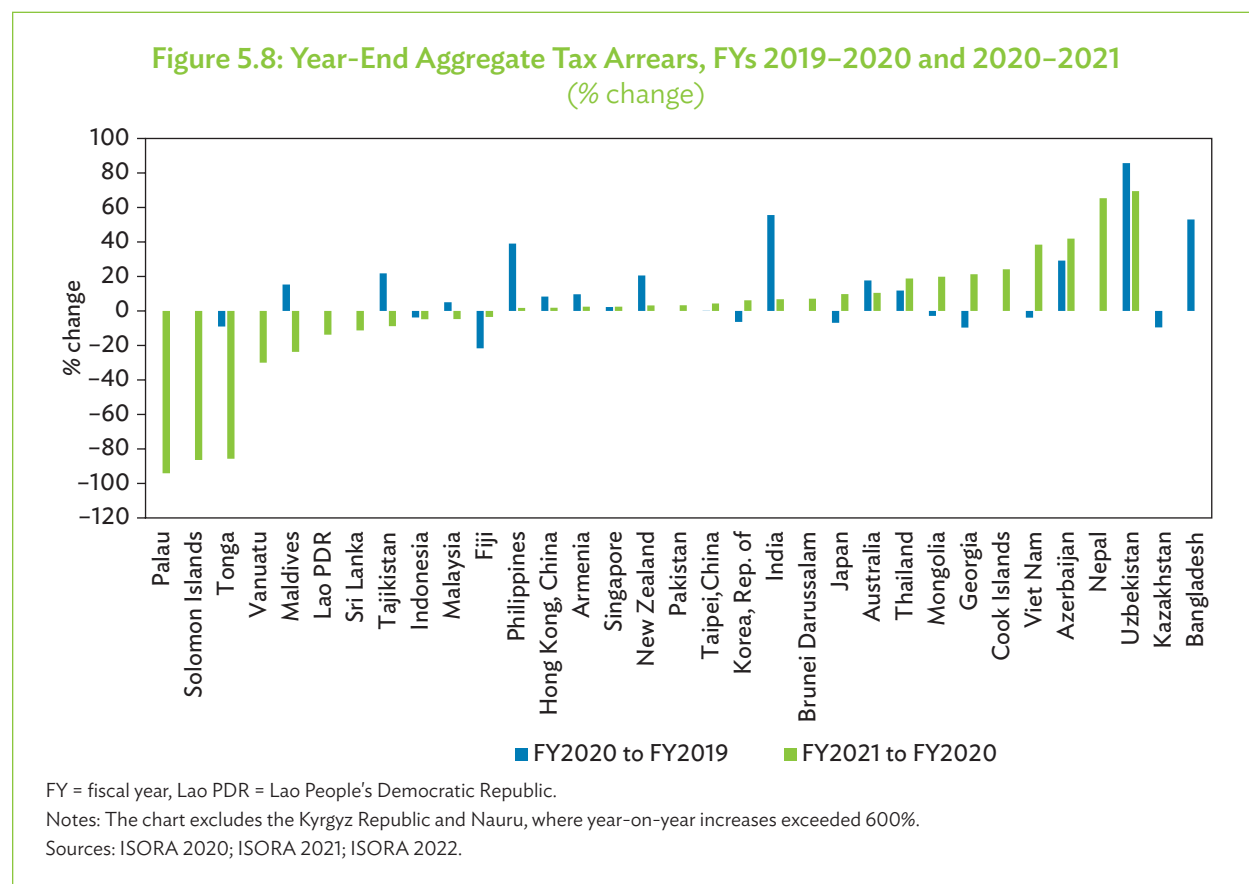
A measure widely used to convey the relative size of a revenue body's tax debt inventory and its trend over time entails a comparison of year-end aggregate tax arrears with annual net tax revenue collections. A declining trend in the ratio over time indicates improved payment compliance, while an increasing trend is likely to be explained by growth in nonpayment compliance. The ratio can be affected by administrative actions influencing payment compliance levels but also by significant disruptions to a country's economic performance. Figure 5.9 sets out the ratio for FY2021 and compares this with the FTE assigned to enforced debt collection. Appendix Table A.48 presents a broader range of computations. Important observations from these ratios are set out below:

- The incidence of year-end aggregate tax arrears as a proportion of total tax collections across surveyed economies varied enormously in 2021, ranging from less than 5% observed consistently in economies such as Japan, the Lao PDR, New Zealand, Singapore, Solomon Islands, and Uzbekistan to over 100%, as observed in India, Maldives,[54] and Sri Lanka.

- Viewed over the 4 years FY2018 to FY2021, a fair number of economies (e.g., Armenia, Japan, Malaysia, Mongolia, the Philippines, Tajikistan, and Viet Nam) show a generally declining ratio, although for some, this improvement in performance appears to have been reversed in FY2020 and/or FY2021 (e.g., Armenia, Malaysia, Mongolia, the Philippines, and Viet Nam).

- Thirty-one revenue bodies reported FTE usage for the enforced debt collection function in FY2021, averaging around 11% of their reported total FTE usage on tax administration. For those revenue bodies, the average ratio of end-year debt to annual net tax collections was 21%; for the population of 10 revenue bodies unable to report FTE usage data for enforced debt collection, five were also unable to report the data required to calculate their average ratio of tax debt to tax revenue collections. Those where data were reported averaged over 33%, higher than those revenue bodies with knowledge of their FTE usage.

Figure 5.9: Staff Full-Time Equivalents for Enforced Debt Collection and Tax Arrears Ratio, FY2021
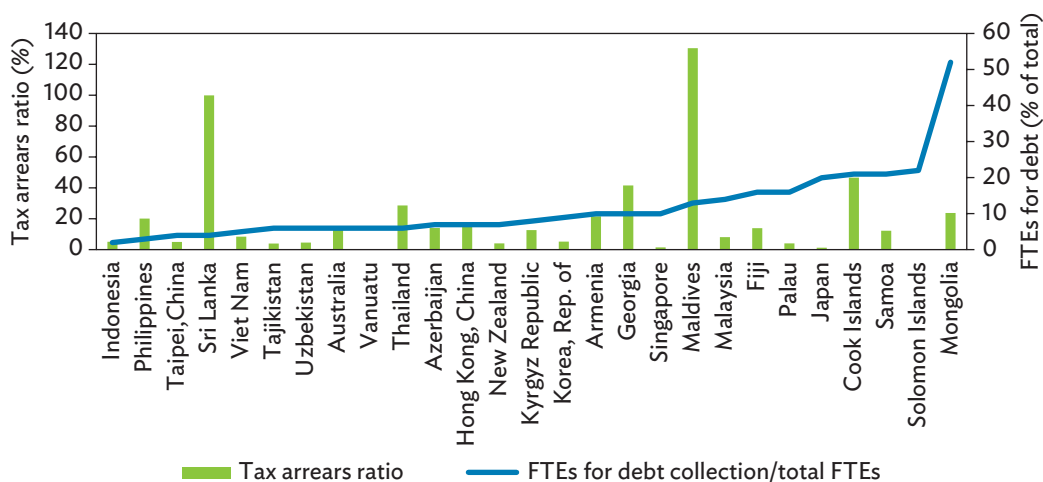
FTE = full-time equivalent, FY = fiscal year.
Notes: Tax arrears ratio = year-end total arrears to annual net tax revenue collections. In the case of Maldives, reported debt includes a large nontax revenue component (mainly tourism land rent) that the revenue body is mandated to collect.
Source: ISORA 2022.

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[54]   The revenue body of Maldives has previously advised that a large component of its overall debt inventory is attributable to nontax debts (i.e., land rents) that it is mandated to collect.

Uncollectible Tax Debts

Figure 5.10 sets out the trends in the proportion of tax debt arrears deemed by revenue bodies to be uncollectible (footnote 54). Although several economies are showing a downward trend in the proportion of uncollectible debt, analysis of the data reveals that, for around 30%, the estimated share of debt deemed uncollectible in FY2021 exceeds 50% of all tax debt. Despite downward trends, uncollectible tax debt remains particularly high among economies in the Central and West Asia region.

Debts of State-Owned Enterprises

Although debts owed by state-owned enterprises do not constitute a large proportion of total debts, the fact that enterprises owned and funded by the state fail to meet their obligations is concerning on several fronts. Public perceptions of the integrity and fairness of the tax system may be undermined if government entities are seen to be noncompliant. Perhaps more significantly, the debts are likely to relate at least in part to withholding taxes from payments to contractors and employees. The practice in many jurisdictions is that, where these amounts are not remitted, the taxpayer concerned may not receive the credit to which they are entitled. This is a serious public trust issue that needs to be addressed where it does occur. Around 25% of revenue bodies reported debts relating to state-owned enterprises in FY2021, compared with around 50% in FY2020. This significant reduction suggests that the revenue bodies involved may have had some success in addressing this issue.

Figure 5.10: Uncollectible Total Year-End Tax Arrears as Share of Total Year-End Tax Arrears, FYs 2018–2021 (% of total)
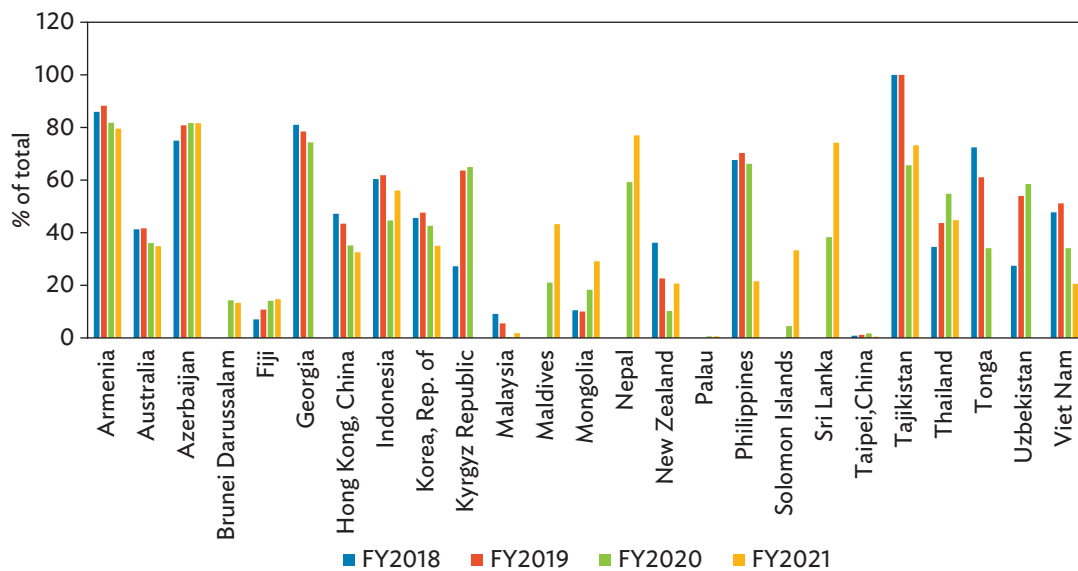
FY = fiscal year.
Sources: ISORA 2019; ISORA 2020; ISORA 2021: ISORA 2022.

H. Tax Crime Investigations

In investigating tax crimes, the principle of developing and applying graduated treatment strategies is particularly relevant. According to the OECD, strategies for combating tax crime should include:[55]

- •   preventative activities, including education;
- •   well-designed detection models, supported by good data sources and data management;
- •   correction activities, including investigation and prosecution of offenses;
- •   recovery of the proceeds of tax and other financial crime.

Typically, these approaches involve cooperation across several government agencies, including revenue bodies (tax and customs), anti-money laundering agencies, financial intelligence units, the police, and prosecutors.

Data reported in ISORA indicate that around 25% of revenue bodies have no responsibility for directing and conducting tax crime investigations (see Appendix Table A.53). For these economies, responsibility for both initiating and conducting such investigations rests with another agency, for example the police or the public prosecutor's office. Economies in this category are Georgia; Kazakhstan; the Kyrgyz Republic; Mongolia; Nauru; Nepal; Taipei,China; Tajikistan; Uzbekistan; and Viet Nam.

From the limited data available on case volumes in FY2021 and in prior fiscal years, there are indications that numbers of prosecution referrals declined for a fair number of revenue bodies in FY2020 and FY2021, although this may be only a temporary disruption resulting from changes to internal work arrangements associated with the COVID-19 pandemic. Some revenue bodies are known to actively promote and publicize their strategy and activities for pursuing prosecutions of the more serious cases of noncompliance detected from their compliance programs (see example from Japan in Box 5.8).

Box 5.8: Japan—Tax Crime Investigations

Types of tax crimes

In Japan, two main types of tax crimes may occur:

- **Serious obstruction of an audit.** This may occur where a taxpayer impedes an audit, fails to furnish information, or provides false or misleading information. Where proven, it is punishable by imprisonment for up to 1 year or a fine of up to ¥500,000.
- **Tax evasion.** Where an audit or review establishes potential tax evasion, the National Tax Agency (NTA) is authorized to carry out a coercive investigation, following a criminal investigation process. Where tax evasion is established, the NTA reports the matter to public prosecutors for criminal prosecution. If proven, tax evasion is punishable by imprisonment, a fine, or both, and the severity of the punishment will depend upon the conduct, but imprisonment is no longer than 10 years and the fine is not more than the amount of tax evasion.

Japan's National Tax Agency enforcement actions

In 2021, the NTA reported 83 criminal prosecution referrals, which is down on previous years, most likely because of the coronavirus disease pandemic. Recent figures are not available for the more common civil prosecutions, which were reported to be over 300 in 2016.

Source: ISORA 2022; Thompson Reuters. Practical Law: Tax Litigation in Japan (accessed 27 August 2023)

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[55]   OECD. 2017b. Effective Inter-Agency Co-operation in Fighting Tax Crimes and Other Financial Crimes. Third Edition. Paris: OECD.

I. Taxpayer Segmentation

Customer segmentation is a widely used technique that was originally developed to support and target marketing efforts. The approach involves breaking down large heterogeneous populations into smaller, homogenous, groups that can be studied more closely, with their characteristics better understood. Products and services can thus be better designed and promoted in ways that are more likely to be well received and meet the needs of the various customer segments. Segmenting customers in this way also enables the development of tailored channels to support more effective delivery of products and services to the targeted groups.

In tax administration, taxpayer segmentation based largely on demographic features, such as the size and nature of a taxpayer's business, has been applied widely. Applications include supporting education, facilitation, and service design and delivery, as well as risk identification, analysis, profiling, and the development and deployment of specific risk treatments. Demographic segmentation also supports building deeper organizational capabilities and specializations, supporting improved taxpayer services and more credible corrective interventions. Most revenue bodies have adopted some form of risk differentiation, designed to match compliance interventions with levels of risk and with levels of culpability. Demographic segmentation also helps better direct research and analysis into behaviors and their drivers.

Behavioral segmentation has been used for many years in tax administration, guiding approaches to risk differentiation and influencing choices of compliance interventions based on underlying behaviors. Advances in data and behavioral sciences are enabling new and potentially game-changing opportunities to develop more sophisticated approaches to behavioral segmentation. AI techniques have developed to the extent that it is now possible to reliably cluster taxpayers based both on behaviors and on features likely to be good predictors of the best interventions. Increasingly, these uses of AI techniques are identifying preventative and more real time intervention opportunities, obviating the need for traditional approaches such as audit and other verifications.

Revenue bodies have identified a range of taxpayer groupings, such as key taxpayer segments (e.g., large entities, high net worth individuals [HNWIs], SMEs), important industry sectors (e.g., extractives, telecommunications, banking and finance), compliance risk categories (e.g., international tax risks, aggressive tax planning, the hidden economy), and certain taxes requiring focus, such as VAT and CIT.

In implementing demographic taxpayer segmentation, some revenue bodies have embedded a focus on key taxpayer segments into the organizational structure. Others have adopted organizational processes that cut across functional areas to better align their operations around identified key segments of the taxpayer population. Whether the approach to taxpayer segmentation is structural, supported by crosscutting processes, or a mixture of the two, the intention is the same. That is, to strengthen compliance improvement interventions by tailoring the approaches used for each identified taxpayer group based on a deep understanding of the different behavioral drivers and revenue risks likely to be present within that group.

Operational taxpayer segmentation is a critical building block in the establishment of an effective compliance risk management (CRM) approach. ADB's Governance Brief on improving tax compliance provided further guidance for revenue bodies seeking to implement or strengthen their current CRM framework. It discusses an overall methodology that is widely used internationally and provides examples of various elements of the framework in operation. It also discusses ways to strengthen enabling capabilities and implement supporting organizational structures.[56]

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[56]   A. Choii. 2020. Improving Tax Compliance: Establishing a Risk Management Framework. *The Governance Brief*. No. 39. Manila.

Many revenue bodies have set up separate organizational units to manage large taxpayers. In some cases, these units (or another unit) also deal with concerns related to HNWIs. The decision to focus on large taxpayers and HNWIs is based on a range of factors: (i) their high tax revenue contribution in their own right and as employers and tax withholders; (ii) the complexity of their business and tax affairs and, in the case of HNWIs, their mix of private and public structures and dealings; (iii) their often unique and significant tax compliance risks; (iv) their use of "top-end" professional tax experts or in-house advisors; and (v) the high media and community profile they maintain, and the community confidence benefits of demonstrating appropriate oversight of these taxpayers.[57]

Management of Large Taxpayers

The broad rationale behind the establishment of large taxpayer units (LTUs) is to focus revenue body efforts on the relatively few taxpayers that account for the largest proportion of revenue. In doing so, stakeholders, including the government and the community, are provided with assurances that the largest taxpayers are receiving levels of support and supervision that are commensurate with their significant role in the tax system. As economies look to post-COVID recovery, it is pertinent to take a closer look at how revenue bodies can optimize the management of this important group.

As far back as the 1980s, development partners such as the IMF were recommending the establishment of LTUs[58] as a way of strengthening tax administration, increasing the levels of compliance of their largest taxpayers, and improving revenue outcomes. Approaches vary considerably across the many jurisdictions that have established LTUs, ranging from a full end-to-end responsibility for the management of all aspects of the administration of large taxpayers, to an intermediate approach focusing primarily on service and verification, to a simple model where the role of the LTU is confined to verification or simply audit. Not all models adopted have proved equally successful. LTUs with a limited scope of operations—for example one focused only on enforcement, one that does not manage all large taxpayers, or one that is inadequately resourced—often deliver suboptimal outcomes. This represents both a lost opportunity and a risk to the reputation of the revenue body.[59]

Cooperative Compliance Approaches

Building a cooperative compliance relationship with certain taxpayers requires a shift away from a one-size-fits-all approach where almost all taxpayers receive the same treatment regardless of their compliance behaviors. Targeting cooperative compliance measures is consistent with a modern CRM policy that encourages more nuanced approaches. Cooperative compliance involves inviting groups of taxpayers to participate in less costly relationships with the revenue body and to enter into a relationship that reflects their low levels of prevailing risks and positive motivational postures on compliance. Cooperative compliance is a more collaborative, mutually agreed arrangement and requires a shift in behaviors by both revenue bodies and taxpayers.

Cooperative compliance models vary considerably, and there is no single model that will be suitable for all jurisdictions. Approaches need to be designed against the backdrop of the culture and practices prevalent, as well as the current relationship between the revenue body and taxpayers. Nevertheless, some common features can be identified, including:

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[57]   OECD. 2009. *Compliance Management of Large Taxpayers Task Group: Experiences and Practices of Eight OECD Countries*. Paris: OECD.

[58]   The LTU may also be referred to as the "large taxpayer office" or the "large taxpayer department."

[59]   For further information and references on this topic, refer to OECD. 2017. T*ax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*. Paris: OECD; A. Chooi. 2022. Mobilizing Revenue: Strengthening Large Taxpayer Administration. *The Governance Brief*. Issue 48. Manila.

- **Timeliness.** Cooperative compliance approaches almost always involve working in as close to real time as possible, with taxpayers bringing tax issues and considerations forward as they become aware of them so that the tax ramifications can be resolved. Ideally, this would occur before the arrangements are finalized and prior to filing of related tax returns. This improves the quality of the decision-making and avoids backward-looking audits and correction. The costs of dealing with information requests seeking historical data, conducting analysis, potentially making adjustments and applying penalties, and the disputes and litigation can also be avoided.
- **Transparency.** Taxpayers must be prepared to be transparent and make full and true disclosures of all relevant facts about their tax policies, tax planning, and business strategies and plans. Failure to disclose all relevant information would typically void any agreement reached between the parties. Revenue bodies must be responsive and prepared to provide early certainty to taxpayers in return for this transparency.
- **Certainty.** The revenue body agrees to provide timely sign-off on the return, provided it is filed in accordance with the previously agreed position. Such sign-off usually involves an assurance that the tax return is settled and will not be audited and adjusted.

In deciding how to approach cooperative compliance policy, revenue bodies should first consider their own capability. Risk assessment capability must be reasonably well developed and support the reliable identification of higher-risk taxpayers likely to require closer monitoring, and those that are lower risk and more suitable for cooperative compliance approaches. Staff capacity and skills should be reviewed to ensure the complex arrangements under examination can be properly understood and the short time frames to examine tax planning arrangements can be met. Staff must be highly skilled in interpreting and applying tax laws to complex arrangements and understanding the business context to ensure they can identify the relevant information and the potential tax drivers behind business strategies and plans.

Large Taxpayer Operations in Asia and the Pacific

This report provides comparative information on arrangements used by revenue bodies for managing large taxpayers. Appendix Tables A.25 to A.30 and A.64 provide information on LTU operations.

Reflecting the heavy concentration of tax revenue received from their large corporate taxpayers, just about all revenue bodies covered by the report have established dedicated LTUs and programs to manage the tax affairs of their largest taxpayers:

- Over 85% of revenue bodies have a dedicated LTU or program to manage the tax affairs of their largest corporate taxpayers (remaining steady compared with FYs 2019 and 2020). Only Bhutan, Brunei Darussalam; Palau; the ROK; Taipei,China; Timor-Leste; and Vanuatu did not report any special focus on large taxpayers.
- Almost 75% of revenue bodies with LTUs have formal cooperative compliance policies for large taxpayers (remaining steady since ISORA 2020).

As discussed earlier, there is a risk that the potential benefits of the establishment of an LTU may be suboptimized where the LTU has a limited scope of operations and or inadequate resources. There is a fair amount of variation in the organizational design of LTUs and some opportunities to expand the focus:

- Under the most widely adopted approach in the region, the LTU delivers a ***comprehensive*** range of functions providing end-to-end processing of all or most aspects of taxpayers' affairs (as seen in

Azerbaijan, Bangladesh, Cambodia, Fiji, Indonesia, Kazakhstan, the Kyrgyz Republic, the Lao PDR, Malaysia, Mongolia, Nepal, New Zealand, Pakistan, the Philippines, Samoa, Solomon Islands, Tonga, and Tajikistan).

- An *intermediate* model sees setups where the LTU provides a mix of service and audit functions (e.g., in Armenia; Australia; Georgia; Hong Kong, China; India; Japan; Nauru; Papua New Guinea; the PRC; Singapore; Thailand; Uzbekistan; and Viet Nam).

- In a small number of economies, the LTU has a *limited* focus only on the audit of large taxpayers (the Cook Islands, Maldives, and Sri Lanka).

While there are no hard-and-fast rules as to the numbers of taxpayers to be administered, a rough rule of thumb for developing economies is a tax base coverage of 50%–70%.[60] Applying this benchmark, around one-third of revenue bodies covered by the report would appear to have potential for further expansion of their taxpayer base (Figure 5.11).

- Data indicating the size of the tax base represented by taxpayers under LTU administration were reported by around 76% (26) of revenue bodies with an LTU setup in FY2021 (34). This is a slight improvement on the reporting rate of 70% in FY2020. Of these, 17 reported a tax base over 50% of the total tax base. Seven reported an amount in the range of 30% to 50%. Only two reported figures below 30%.

- The criteria used for classifying corporate taxpayers as "large businesses" to be managed by the LTU vary considerably across the region, with the most common criteria being turnover, economic sector, and/or tax paid.

- Tax paid by designated large taxpayers as a percentage of total tax collections varies widely and ranged from 17% in Viet Nam to 97% in Nauru in FY2021 (Figure 5.12).

Figure 5.11: Large Taxpayer Unit Setups in Asia and the Pacific, FY2021

Revenue bodies with no LTU setup: 7

Revenue bodies with an LTU setup: 34

FEATURES OF LTUs

A comprehensive model is most commonly observed (over 50% of LTUs).

One half of LTUs have a revenue base exceeding 50% of total tax collections.

LTU resource levels (FTEs) are variable, with 60% reporting 2%–10% of total FTEs.

Case numbers/ FTE are variable but concentrated in the range of 2–10 cases.
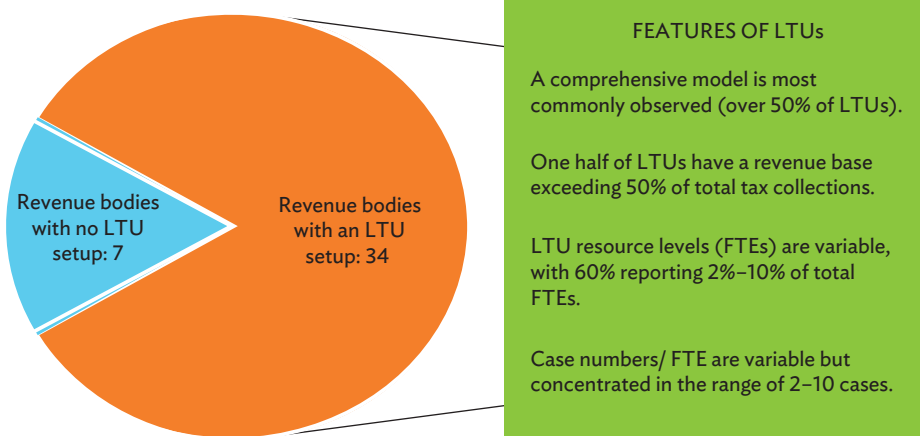
FTE = full-time equivalent staff, FY = fiscal year, LTU = large taxpayer unit.
Source: ISORA 2022.

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60   The term "tax base coverage" refers to the total tax revenue (all tax types) received from designated large taxpayers as a proportion of all net tax revenue collected by the revenue body.

Figure 5.12: Tax Base of Large Taxpayers under Large Taxpayer Unit Administration, FY2021
(% of total)
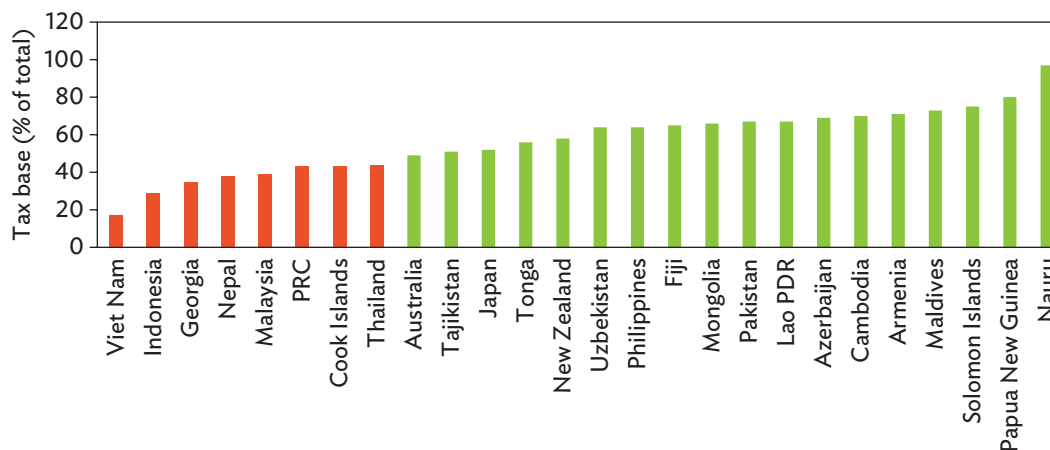
FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.
Notes: Amount reported by Australia does not include employers' withholdings of income tax.
Source: ISORA 2021.

While there are no hard-and-fast rules as to the level of resources to be invested in LTU operations, a rough rule of thumb for developing economies is around 10–20 taxpayers per FTE. Applying this benchmark, around one-quarter of revenue bodies covered by the report may be potentially under-resourced.[61] The number of corporate taxpayers managed per LTU FTE is widely variable, ranging from 2 in Pakistan, Sri Lanka, and Viet Nam; to 3 in Fiji, Kazakhstan, and New Zealand; and up to 124 in Malaysia and 146 in Hong Kong, China.

Management of High Net Worth Individuals

HNWIs, like large taxpayers, are likely to represent a material tax revenue risk and their revenue contributions will become more critical as economies look to strengthen revenue post-COVID-19. These individuals typically have complex tax affairs, often using closely held, private, and opaque tax structures; given the resources at their disposal, they also have a greater opportunity to participate in aggressive tax planning arrangements. Their high profile in the community means their compliance behavior can affect community confidence in the revenue body and the integrity of the whole tax system. As such, it is important that revenue bodies are seen to be managing HNWIs effectively.

The characteristics of HNWIs, including the complexity and opaqueness of their affairs, as well as their propensity to participate in aggressive tax planning, present capacity-building challenges for revenue bodies focused on the prevention and detection of, and responses to, these behaviors. In addressing these challenges, some revenue bodies have set up dedicated HNWI units to focus more effectively on these taxpayers and to build organizational capacity at both the strategic and the operational level.

HNWI are typically defined based on a certain threshold of the value of financial assets and real assets (such as land and buildings), owned by individuals and their immediate families, less their debts. This definition includes all forms of wealth: personal and that held in trusts and/or other legal entities that are owned and/or effectively

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[61]   Caution should be used in interpreting this information as revenue bodies vary considerably in the scope of operations of the LTU. There are also differences in the type and range of taxes to be administered (e.g., Hong Kong, China does not operate a pay as you earn [PAYE] employer withholding regime or major indirect tax such as a VAT, while Malaysia's IRBM is responsible only for income taxes).

controlled by the individuals and/or their families.[62] Definitions based on wealth rather than income are favored as they are less susceptible to fluctuation and manipulation. Thresholds are typically set against the backdrop of overall levels of wealth in the jurisdiction concerned, so will vary from economy-to-economy.

External research conducted and published regularly by private sector institutions such as investment banks paint a picture of significant growth in the number and assets of wealthy individuals over recent years and into the future, including in Asia and the Pacific. Credit Suisse, a private investment bank, is one such institution; Box 5.9 sets out selected findings and data from its published research.

Box 5.9: High Net Worth Individuals—Selected External Research Findings, 2022

Despite the negative economic impacts of the coronavirus disease (COVID-19) pandemic in 2020 and 2021, Credit Suisse's latest report paints a picture of significant growth in household wealth in 2021, estimating that aggregate global wealth grew by 12.7%, making it the fastest annual rate ever. Findings from its research for the wealthier segments of economies studied highlight the numbers and expected growth of high net wealth individuals globally and within Asia and the Pacific:

- At the top of the wealth pyramid, the United States continues to rank highest, with over 140,000 ultra-high net worth individuals (UHNWIs) (with wealth above $50 million); it is followed by the People's Republic of China (PRC), with 32,710 individuals.
- The number of UHNWIs is expected to reach 385,000 by 2026, rising by 121,000 in 5 years.
- More than half of all UHNWIs currently reside in North America, while economies in Asia and the Pacific (including India and the PRC) are home to more than 67,000. This already exceeds by a wide margin the roughly 42,000 living in Europe, and this difference in favor of Asia and the Pacific is expected to increase further. By 2026, the region will host an estimated 51,000 additional UHNWIs, reaching a total of nearly 118,000, of whom 51% will be from the PRC. Credit Suisse estimates that, by 2026, the PRC will have roughly the same number of UHNWIs (about 60,000) as the whole of Europe.
- Lower down the wealth scale, the estimated populations of individuals in Asia and the Pacific with assets exceeding $10 million in 2021 are substantial (Table 5.7).

Table 5.7: Credit Suisse—Estimates of Individuals with Assets over $5 million, 2021

Economy	Estimated Number of Individuals (by assets)		Economy	Estimated Number of Individuals (by assets)	
	$5 million–$10 million	Over $10 million		$5 million–$10 million	Over $10 million
China, People's Rep. of	366,400	242,000	New Zealand	21,600	8,000
Japan	140,300	60,000	Singapore	21,000	14,000
Australia	112,000	58,000	Indonesia	14,000	10,000
Taipei,China	53,000	28,000	Viet Nam	3,200	2,000
Korea, Rep. of	70,000	36,000	Bangladesh	1.100	500
India	58,600	42,000	Pakistan	900	400
Hong Kong, China	40,400	26,000			

Source: Credit Suisse. 2022a. *Global Wealth Databook 2022* (page 130).

Sources: Credit Suisse. 2022a. Global Wealth Report 2022; Credit Suisse. 2022b. Global Wealth Databook 2022.

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[62]   IMF. 2017. *Revenue Administration: Implementing a High-Wealth Individual Compliance Program.* Technical Notes and Manuals. Washington, DC: IMF.

High Net Wealth Individuals Operations in Asia and the Pacific

This report provides comparative information on revenue bodies' arrangements for managing HNWIs. Appendix Tables A.31 and A.64 contain information on aspects of taxpayer segmentation, including the management of HNWIs. The key points are as follows:

- Only 11 revenue bodies (i.e., Australia; the Cook Islands; Indonesia; Japan; Malaysia; New Zealand; Pakistan; Papua New Guinea; Sri Lanka; Taipei,China; and Tonga) reported having dedicated units or programs to manage the tax affairs of HNWI taxpayers, either within their large taxpayer division or as a separate stand-alone unit.
- Of these 11 revenue bodies, nine have formal cooperative compliance policies for HNWIs, while only four were able to report the share of net revenue as a percentage of total revenue attributable to HNWIs: Australia (5%), Malaysia (3%), New Zealand (4%), and Tonga (1%).

In ISORA 2018, revenue bodies were asked to assess the level of risk HNWIs presented. Almost 40% responded that the risk was high, while around 30% said it was medium. Among those revenue bodies that gave a high risk rating at that time, two-thirds did not report having a dedicated HNWI unit established. Many revenue bodies included in this group have now established such units, including Fiji; India; Indonesia; the Lao PDR; the Philippines; Taipei,China; and Tajikistan. Fiji and the ROK, which also rated HNWI risks as medium to high in ISORA 2018, did not report having a separate HNWI setup in FY2021.

Management of Small and Medium-Sized Enterprises

The SME sector is often referred to as the "engine room" of an economy. According to the World Bank, SMEs worldwide make up around 90% of all businesses and employ about 50% of all workers. SMEs also generate around 40% of national GDP in emerging economies.[63] Studies of the compliance burden businesses face consistently report a negative correlation both with the size of the business and with the tax assessed. Figure 5.13 illustrates this relationship, showing the findings of a 2022 study published by the European Union, which examined compliance costs of businesses across 28 member states.[64]

For these reasons, many governments seek to provide simplified tax regimes targeted at the SME sector. Revenue bodies also often develop simplified reporting rules and seek to offer easier access to information and services. In doing so, policymakers and administrators seek to balance the competing challenges of addressing the disproportional compliance costs and capacity limitations facing this sector, with the fundamental principle of tax neutrality and equitable access to support services. System design needs to reflect this tension. Some special regimes may include features such as presumptive taxes.[65]

However, the transition from the special regime into the full tax system is better supported by regimes that simplify the imposition of the same taxes that all businesses are liable for. This simplification may be brought about by legislating burden reduction and designing simpler administrative reporting and compliance systems.

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[63] World Bank. Small and Medium Enterprises Finance (accessed 4 April 2023).
[64] European Union. 2022. Tax Compliance Costs for SMEs: An Update and a Complement: Final Report. Luxembourg: European Union.
[65] Presumptive taxation uses indirect means to ascertain tax liability, which are different from the rules based on the taxpayer's accounts used by other taxpayers.

Figure 5.13: Compliance Costs as a Proportion of Turnover and Tax Assessed in Selected European Union Economies
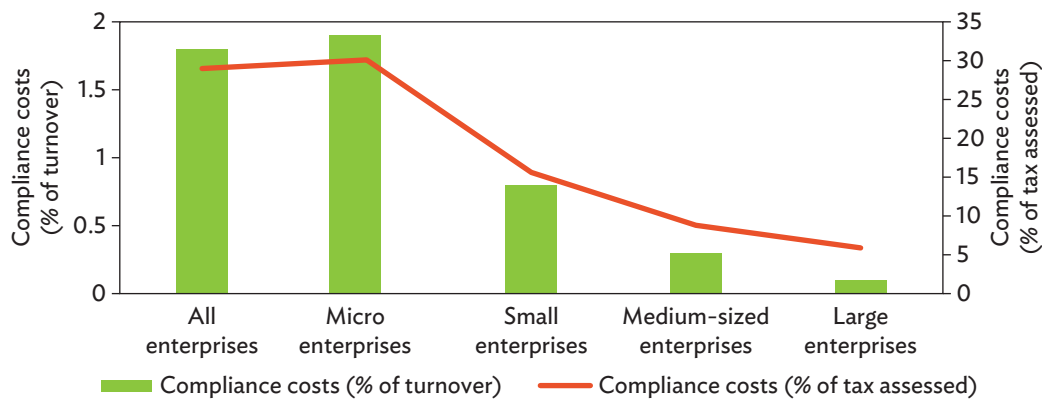
Source: European Union. 2022. *Tax Compliance Costs for SMEs: An Update and a Complement: Final Report*. Luxembourg: European Union.

Common features of special tax regimes for SMEs may include lower tax rates, simpler accounting rules, and modified record-keeping and reporting requirements. Additional services may also be offered, including online and/or face-to-face training, free or low-cost accounting software, support for new businesses, and delivery of education and support through business intermediaries. Revenue bodies often work collaboratively with intermediaries such as industry associations and chambers of commerce to co-design, develop, and deliver simple advice, tools, and calculators.

Such regimes need to be designed to be compatible with the compliance capacity of the target group and the revenue bodies' administrative capacity, and be robust against corruption/collusion. Where, for example, concessional tax rates apply, they should be high enough not to discourage transition to the normal regime or encourage underreporting, but not so high as to worsen noncompliance. Integrity rules will be required, such as those to prevent splitting businesses to artificially remain under the eligibility thresholds, and they should also include provision for a manageable transition between regimes for growing businesses.

Financial and Human Resources for Tax Administration

Key Messages

- The aggregate financial resources allocated to revenue bodies for FYs 2020 and 2021 were largely unaffected by budgetary decisions arising as a result of the COVID-19 pandemic, with very few revenue bodies experiencing significant reductions in their operational funding.

- Revenue bodies in a small number of developing economies appear considerably under-resourced to properly carry out their primary role: injection of additional staff resources appear necessary to mobilize increased domestic revenue and bolster overall operational performance.

- Investments in modern information and communication technology (ICT) are central to building an effective tax administration capability. However, the evidence gathered in this and prior ISORAs suggests that many governments, MOFs, and revenue bodies either are investing far too little in ICT or do not have a sufficient awareness of their ICT investments.

- There has been progress in raising overall levels of female representation among staff for over half of the participating revenue bodies; however, increasing the proportion of female staff in executive positions remains a major challenge for over one-third of revenue bodies.

Without exception, all revenue bodies are exposed to limits on the resources allocated to them by their respective governments to carry out their mandate. And, as observed in recent editions of this series, these limits are especially challenging for revenue bodies in many developing economies, where domestic resource mobilization has a very high priority but where the funds available for public sector administration, including tax collection, are relatively scarce and subject to many competing demands.

Over FYs 2020 and 2021, the onset and lingering impacts of the COVID-19 pandemic presented additional challenges to the budgetary management of just about all governments. These included the need for resources to address the medical crises resulting from the pandemic in most economies and new expenditure outlays to support businesses and citizens amid a slowing of tax revenue collections. At the level of national revenue bodies, new challenges arose for many during FY2020 and continued into FY2021, with the diversion of resources onto new programs and responsibilities, some reductions in traditional enforcement and verification activities, and the introduction of new working arrangements in some economies that saw a large proportion of revenue body staff working remotely. These factors and others raised the importance of sound resource allocation and management processes for all revenue bodies.

This chapter provides an account of the financial and human resources allocated to revenue bodies in FY2021 to carry out their mandate and how those resources were used in tax administration operations. Various ratios and indicators are used, along with historical data, to highlight similarities and differences across the economies surveyed and to identify trends over time. The chapter also presents data on the composition of revenue bodies' workforces in FY2021, including details of their overall staffing levels, numbers and rates of recruitments and departures, educational qualifications, age and length of service staffing profiles, numbers of executives, and workforce gender mix, and makes a range of observations on observed patterns and/or trends drawing on historical ISORA data.

A. Financial Resources for Tax Administration

Data reported in respect of revenue bodies' financial resources and their use are presented in Appendix Tables A.12 to A.15. These data refer to aggregate operating expenditure (including salaries), salary expenditure, ICT expenditure, and capital expenditure. To identify trends and the impacts of policy changes, the tables include corresponding data from prior ISORAs (for FY2018, FY2019, and FY2020).

Aggregate Operating Expenditure

For ISORA, the term "operating expenditure" refers to all operating costs including salaries and other overheads but excluding capital costs. As a rule, this aggregate at the level of an individual jurisdiction tends to move in line with inflationary trends. However, from time to time, governments make policy decisions that have a significant impact on expenditure levels (e.g., additional staffing investments for new or expanded programs, new investments in automation, additional resources to undertake new roles and responsibilities, and expenditure reductions or freezes to meet budgetary objectives). By including corresponding data from prior ISORAs, the tabulations provide readers with the ability to view the trend of such expenditure over an extended period.

Observing expenditure levels for both FYs 2020 and 2021, the year when the COVID-19 pandemic had wide impacts, the data reported suggest minimal overall changes across most surveyed revenue bodies. The data for 28 revenue bodies indicate that expenditure allocations were relatively stable. Three revenue bodies (i.e., Fiji, Nepal, and New Zealand), reported reductions in operating expenditures exceeding 10%, while six others (i.e., Azerbaijan, Cambodia, India, the PRC, Tajikistan, and Tonga) reported increases in total operating expenditure exceeding 30% of FY2019 levels.

Viewed over the 4 FYs 2018–2021 (Appendix Table A.12), the surveys reveal significant changes (both positive and negative) in the reported funding levels of revenue bodies for a few economies. Relatively large increases are observed for Azerbaijan (74%), Cambodia (70%), India (143%), the Philippines (44%), Tajikistan (48%), Uzbekistan (131%), and Vanuatu (92%) while significant reductions are seen in a few economies, i.e., New Zealand (24%), Papua New Guinea (19%), and Solomon Islands (24%). Several of the reported changes in expenditure levels result from factors peculiar to the individual circumstances of the economies concerned:

- **India.** Previous ISORAs encompassed only the administration of direct taxes; for ISORA 2022, Indian authorities extended the survey's coverage by including the administration of indirect taxes. However, it should also be noted that the data reported also include the administration of customs laws and regulations, the costs of which could not be separately quantified for ISORA.

- **New Zealand.** The delivery of administrative savings, largely from Inland Revenue's transformation program over the 5 years up to FY2021, has seen in a gradual reduction in its workforce, exceeding 20% since the end of FY2017.
- **Philippines.** The Bureau of Internal Revenue has been allocated additional staff resources for tax administration over recent years, increasing its workforce in FY2021 by over 25% since the start of FY2018. These increased allocations address relatively small allocations for staffing highlighted in prior editions of this series.

Aggregate Salary Expenditure

For ISORA, the term "salary expenditure" refers to the total costs attributable to direct employee costs (including contributions to pension plans) for all roles performed by the tax administration. The reported amount should not include payments to contractors/consultants for services rendered.

Studies of ISORA data from previous years indicate that staff remuneration typically consumes the largest proportion of a revenue body's total operating expenditure, averaging 60%–65% across the revenue bodies studied. In practice, however, there are exceptions to this rule, with several revenue bodies consistently reporting substantially higher or lower levels of salary expenditure in relative terms. While the factors that might explain these large variances have not been researched at the level of individual jurisdictions, global experience points to several possible explanations:

(i)   differences across economies in the relative remuneration levels of public sector employees;
(ii)   differences in relative levels of automation across revenue bodies, with impacts on the numbers and mix of staff employed on tax administration;
(iii) differences across economies in the range and nature of the taxes administered resulting in variations in staffing profiles; and
(iv)   differences across economies in expenditure budgeting policies and practices.

There is also the possibility that some revenue bodies have failed to fully and accurately account for all staff remuneration costs attributable to tax administration (e.g., in the case of institutional setups where "corporate" functions are shared across tax and nontax operations).

Figure 6.1 depicts reported salary expenditure as a proportion of total operating expenditure for FYs 2020 and 2021, drawing on data in Appendix Table A.13. As will be apparent, the ratio tends to be reasonably consistent at the level of individual economies but varies enormously across the surveyed population, ranging from less than 20% to over 90%. Across the 39 economies for which data are available, the average (unweighted) ratio computed for FY2021 was 63%, a level very much in line with historical averages.

Figure 6.1: Salary Expenditure, FYs 2020 and 2021 (% of total operating expenditure)
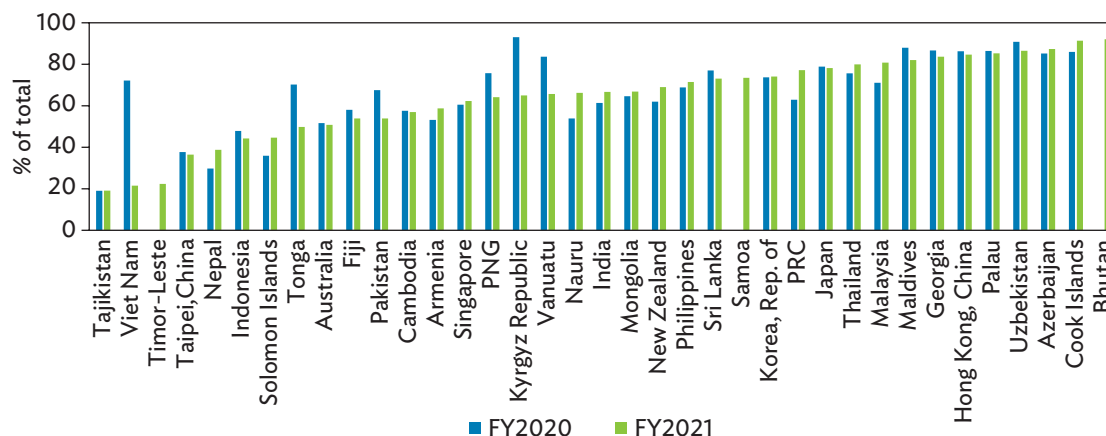
FY = fiscal year; PNG = Papua New Guinea; PRC = People's Republic of China.
Source: ISORA 2021; ISORA 2022.

Aggregate Information and Communications Technology Expenditure

For ISORA, the term "ICT expenditure" comprises all expenses covering hardware infrastructure, digital communication infrastructure, computers, software, other ICT areas, and staff working in these areas. Reported ICT expenditure, relative to total operating expenditure on tax administration, can vary enormously when observed over several years for revenue bodies that are undertaking major investments in ICT infrastructure and business systems. Appendix Table A.14 sets out data reported for ICT expenditure for FYs 2018–2021.

As for salary expenditure, the ratio of ICT expenditure to total operating expenditure tends to be reasonably consistent at the level of individual economies over time but varies significantly across the economies reported. Factors that may explain some of these variations include:

(i)   differences in levels of automation and the sophistication of the business applications being used;
(ii) institutional arrangements that for some revenue bodies see the provision of most or all ICT support provided on a "whole-of-MOF" basis (and not costed and accounted for in ISORA); and
(iii) a failure by some revenue bodies to account for all their ICT expenditure.

For FYs 2018–2021, the data in Appendix Table A.14 and depicted in Figure 6.2 suggest that most revenue bodies have potential to make greater use of technology to support their delivery of tax administration operations. Across the 4 fiscal years, 18 revenue bodies reported expenditure averaging less than 5% per annum of total operating expenditure; 10 reported average expenditure in the range of 5%–10%. Six revenue bodies reported no data for any fiscal year, suggesting that knowledge and monitoring of ICT expenditure investments is not an organizational practice or priority.

Figure 6.2: Average ICT Expenditure, FYs 2018–2021 (% of total operating expenditure)
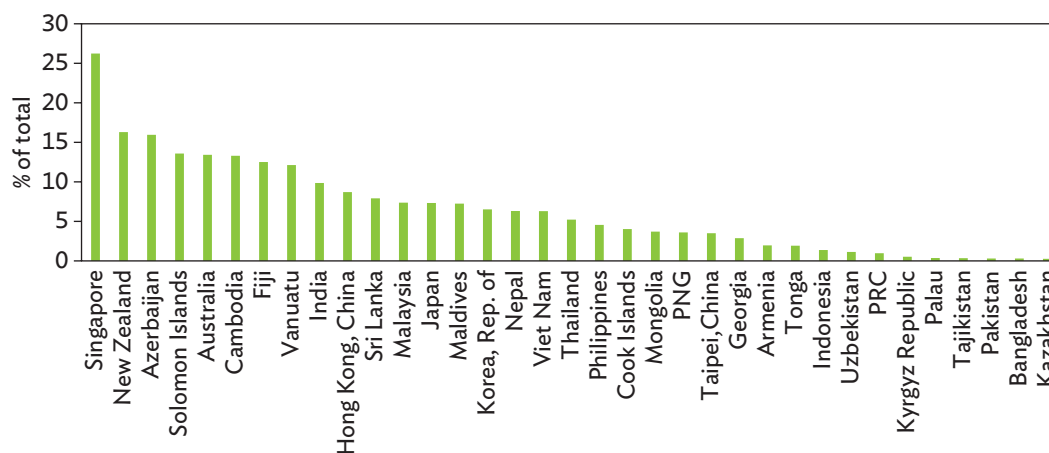
FY = fiscal year; ICT = information and communication technology; PNG = Papua New Guinea; PRC = People's Republic of China.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Developments discussed in Chapter 4 of this series highlight the significant role that technology can play in the delivery of tax administration operations and also point to the potential for many revenue bodies to significantly increase their ICT investments.

Aggregate Capital Expenditure

For ISORA, the term "capital expenditure" includes all costs associated with the acquisition of capital assets, including ICT infrastructure, buildings, motor vehicles, etc. Requirements for capital expenditure outlays can be expected to vary significantly from one economy to another and over time, influenced by a variety of factors (e.g., government accommodation and staffing policies, ICT capabilities and renewal programs, and geographical spread). This is evident from the data reported by revenue bodies for FYs 2018–2021 (Appendix Table A.15).

Viewed as a share of total expenditure (i.e., operating expenditure plus capital expenditure), capital expenditure outlays generally tend not to exceed an average of 5% per annum. However, for six economies, reported capital expenditures consistently exceeded an average of 10% over the 4-year period examined: Azerbaijan, Fiji, New Zealand, Solomon Islands, Sri Lanka, and Tajikistan. Revenue bodies in a number of these economies are known to have conducted modernization programs involving large ICT investments over this period, for example in Fiji, New Zealand, Sri Lanka, and Tajikistan.

Regional Comparisons of Operating Expenditure

Aggregate data on total operating expenditure of revenue bodies included in this report have limited use in a comparative sense and ideally need to be incorporated into measures that put them in a relative context. It has become fairly common practice for revenue bodies to compute a cost of collection ratio as one of their high-level measures of organizational efficiency and/or effectiveness (see Box 6.1).

Box 6.1: The Cost of Collection Ratio

The cost of collection ratio is calculated by comparing a revenue body's total operating expenditure on tax administration with annual net tax revenue collections. It is generally expressed as the cost to collect 100 units of tax revenue. The ratio is computed and published by many revenue bodies globally, including some in Asia and the Pacific (e.g., Australia, Indonesia, the Philippines, Singapore, and Sri Lanka).

All other things being equal, a downward trend in the ratio over several years is indicative of improvements in efficiency and/or effectiveness. However, movements in the ratio can also be affected by factors unrelated to changes in efficiency or effectiveness, which may not be easy to isolate for attribution purposes. For example, the ratio may vary significantly over time owing to one or more of the following:

(i)   economic factors (e.g., economic downturns, as widely seen with the pandemic in FY2020 and FY2021);
(ii)   changes in tax rates and other aspects of tax policy;
(iii)   changes in the range of taxes and other revenues collected by a revenue body; and
(iv)   policy decisions that result in significant changes to a revenue body's operating expenditure (e.g., a significant expansion of the workforce or a program of radical downsizing of staff).

When interpreting the ratio and its trend over time for an individual revenue body, it is important to be aware that such factors may be relevant.

A final point to be made concerns the value of the cost of collection ratio itself. An exceptionally low ratio (e.g., one less than 0.5) for a national revenue body collecting a broad mix of taxes is more than likely to be indicative of an underinvestment in resources for revenue administration. Experience shows that, for many national revenue bodies, the value of the ratio typically falls within the range of 0.50–1.0 and fluctuates over time owing to the sorts of factors mentioned in (i) to (iv). Ratios less than 0.50 are sometimes observed in developing economies, those where other indicators are used to examine the performance and other aspects of revenue bodies point to an underinvestment in resources (e.g., number of labor force participants/one full-time time member of staff). On the other hand, consistently high ratios (i.e., over 1.5) are likely to be indicative of an institutional setup for revenue administration that oversees a relatively narrow range of taxes and/or an overinvestment in tax administration resources.

Source: Authors' compilation.

Computations of cost of collection ratios for the economies included in this series are set out in Appendix Table A.16 for FYs 2018–2021 where all relevant data have been reported in ISORA. The table also draws attention to several "structural" factors that need to be borne in mind when contrasting the computed ratios between revenue bodies of different economies. These factors include differences in (i) the range of taxes administered, (ii) institutional setups (e.g., separate administration of direct and indirect taxes, the operation of combined tax and customs administrations), and (iii) the range of responsibilities and functions undertaken by the revenue body.

For those revenue bodies that are also responsible for customs administration, computation of the ratio also depends on the accuracy of the estimates made to apportion aggregate operating expenditure between tax and customs operations (including support functions).

The ratios computed for many revenue bodies for FY2020, and to a lesser degree in FY2021, were affected by significant downturns in tax collections, attributable in large part to the onset of the COVID-19 pandemic and its impact on economic activity (especially tourism) and, in some cases, resultant changes in tax policy and administration (e.g., tax return filing extensions and deferrals of tax payments). For a very small number, the ratio was affected by relatively large increases or reductions in total operating expenditure (e.g., Azerbaijan and New Zealand). Figure 6.3 highlights selected economies that experienced significant movements in tax revenues and/or operating expenditures in FY2020 and/or FY2021 that had impacts on the computed cost of collection ratio.

Figure 6.3: Cost of Collection Ratios—Selected Economies, FYs 2019–2021
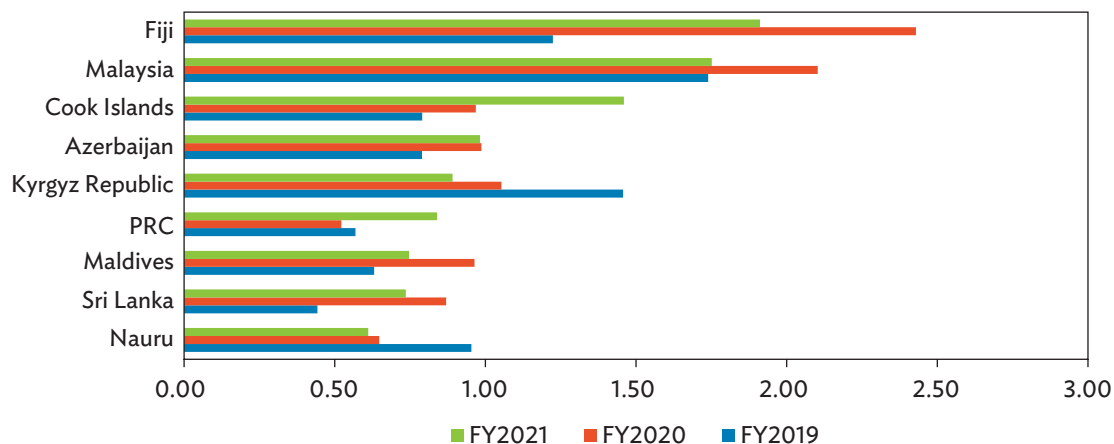
FY = fiscal year, PRC = People's Republic of China.
Source: ISORA 2020; 2021; ISORA 2022.

The ratios computed for several economies (e.g., Fiji, Maldives, Mongolia, Nepal, and New Zealand) also reflect relatively large reductions (i.e., −20% or more) in FY2021 compared with FY2020. While not researched in detail, these lower ratios appear to result from a mix of cost containment during the pandemic (e.g., as seen in Fiji) and the bolstering of tax revenues as the impacts of the pandemic started to subside during FY2021 and economic activities and revenue collections returned closer to pre-pandemic levels.

Computations of the ratio for FYs 2020 and 2021 also highlight several economies (i.e., Bangladesh, Nepal, and Solomon Islands) where the ratio is exceptionally low (i.e., well under 0.50) relative to other economies. Exceptionally low collection ratios are likely to be indicative of an underinvestment in tax administration staff resources, especially in areas such as verification and enforcement, and potentially for important support functions such as staff development and training and internal audit. Other data presented later in this chapter on staff resource levels viewed in comparative terms support this observation.

Finally, many of the structural factors described in Box 6.1 that complicate comparability of the ratio between economies are present across surveyed revenue bodies. As is evident from Appendix Table A.15, these include the collection of domestic excises by separate customs bodies (11 revenue bodies) and the collection of SSC by separate social security bodies (10 revenue bodies).

B. Human Resources for Tax Administration

Appendix Tables A.10, A.11, and A.17 to A.19 set out data reported in respect of revenue bodies' human resources and their use. These data include overall staffing levels, numbers of recruits and departures, and annual staff usage (expressed in terms of FTEs). To enrich the information provided, selected corresponding data from previous ISORAs are also included.

Overall Staffing Levels of Revenue Bodies

Appendix Table A.17 displays data on overall staffing levels from the beginning of FY2018 to the end of FY2021. The data are presented on a "whole-of-revenue body" basis and include staff employed for nontax roles, including for customs administration in a few economies. As will be apparent, the data reflect enormous differences across the region, in large part because of differences in population sizes and levels of economic and social development.

Looking at movements in staffing levels over the 4 years it will be apparent that relatively significant increases are reported for Bangladesh, Cambodia, the Cook Islands, Papua New Guinea, the Philippines, the PRC, Solomon Islands, and Vanuatu, reflecting new investments in staffing for tax administration and, in the case of the PRC, structural changes associated with the integration of state and local tax bodies that occurred in FYs 2018 and 2019.

For FY2021, overall staffing levels were generally constant and only two revenue bodies (Fiji and New Zealand) reported relatively large reductions.

Staff Usage on Tax Administration Operations

Appendix Table A.10 sets out data reported by revenue bodies on estimated annual staff resource usage (expressed in terms of FTEs) for tax administration. ISORA adopts the generally accepted measure of staff usage to contrast annual staff resource usage for tax administration—an FTE (full- time equivalent) of 1.0 means resources equal to one staff member available full time for an entire year. FTEs provide a measure of the human resources available and used, not their cost. Where a revenue body does not use the FTE concept, ISORA guidance suggests that average staff numbers for a fiscal year be used as an estimate for FTEs, where "average staff numbers" equal the number of staff at the beginning and end of a fiscal year, divided by two.

It is important to note that the data provided in Appendix Table 10 refer to the administration of central government taxes and, as required for ISORA purposes, exclude resources devoted to nontax roles, including customs administration for those economies where this role is performed by the revenue body.

Over the 4-year period reported, substantial changes (+/−20%) in aggregate staff usage on tax administration in a relative sense can be observed from the data in Appendix Table A.10 for several revenue bodies. Significant increases in relative terms over the period occurred in Cambodia (32%), the Philippines (23%), and the PRC (83%). For Cambodia and the Philippines, the increases reflect new staff investments in tax administration. In the case of the PRC, the large increase results from the integration of state and local tax bodies in FYs 2018 and 2019. A few revenue bodies report relatively large reductions (i.e., over 20%) in resource usage on tax administration over FYs 2017–2021, notably Armenia (23%) and Azerbaijan (20%). In the case of Armenia, the reduction appears to result in part from revision to the level of overall staff resources allocated to customs, as distinct from tax, administration.

Staff Attrition and Churn Rates

The incidence of staffing increases and reductions across revenue bodies can also be viewed in terms of measures known as rates of "staff attrition" and "staff churn."

The rate of staff attrition is a measure of the loss of staff by a revenue body over a year expressed in relative terms, and is calculated as follows:

Staff attrition rate = (no. of departures / [(no. of staff at year-start + no. of staff at year-end)/2] x 100).

The rate of staff churn is a measure of the movement of staff into and out of a revenue body over a year, also expressed in relative terms, and is calculated as follows:

Staff churn rate = ([no. of new recruits + no. of departures] / no. of staff at year-end x 100).

High rates of staff attrition and churn are likely to be indicative of heavy workloads for a revenue body's human resource management function and managers at large and the need for adequate resources and time to be invested in activities such as staff recruitment, induction and developmental programs, and overall workforce planning. Consistently high rates of staff attrition and churn may be indicative of a multiplicity of factors (e.g., major staffing expansion or downsizing programs executed over several years, large staff replacement programs to address an aged workforce and significant numbers of retirements, major institutional reform, and/or weaknesses in human management [including poor staff morale]).

Appendix Tables A.18 and A.19 set out data on levels of staff recruitment and departures, and related rates of staff attrition and staff churn for FYs 2018–2021. Figure 6.4 depicts rates of staff attrition and churn for revenue bodies reporting their data on levels of staff recruitment and departures.

Figure 6.4: Staff Attrition and Churn Rates, FY2021 (%)

FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Source: ISORA 2021.
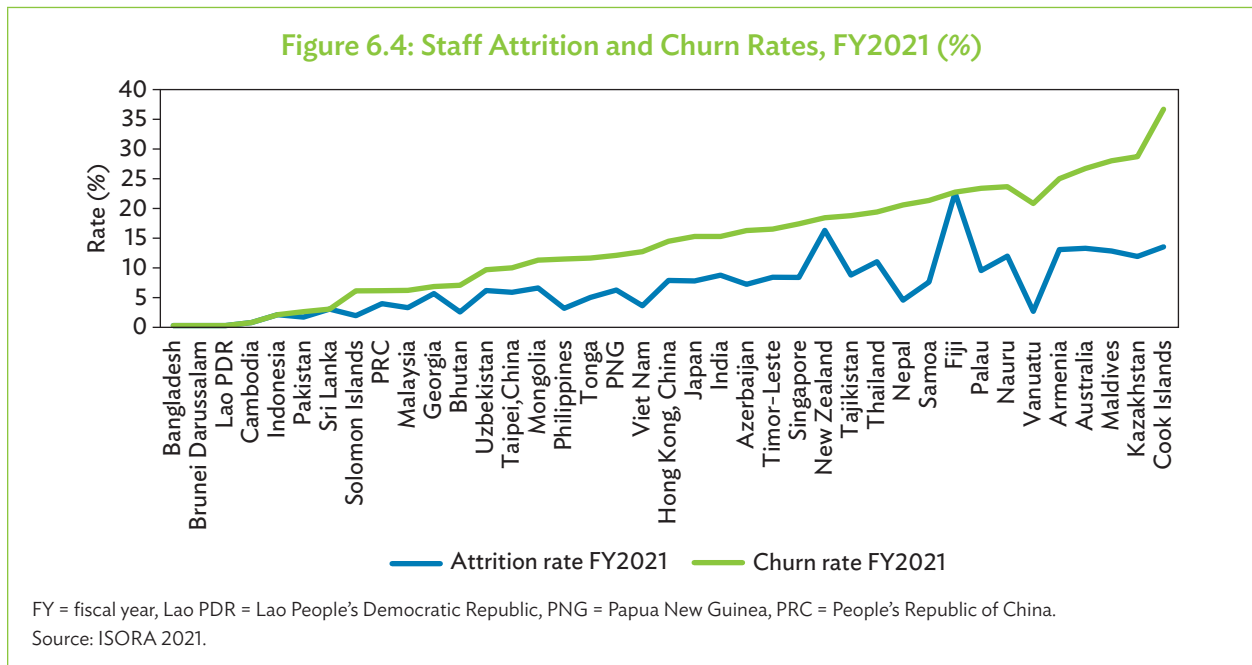
The data presented reflect widely differing experiences of revenue bodies across the region in this important aspect of human resource management. Staff attrition rates indicating the loss of staff in relative terms in 2021 ranged from zero to over 10% seen in economies such as Armenia, Australia, the Cook Islands, Fiji, Kazakhstan, Maldives, Nauru, New Zealand, and Thailand. Many of these revenue bodies also experienced high churn rates in FY2021 (i.e., over 20%), reflecting the combined impact of relatively large numbers of new recruits and staff departures.

Observed over FYs 2018–2021, analysis of the estimated rates of staff churn points to a small number of revenue bodies with consistent high rates, in relative terms—Armenia, the Cook Islands, Kazakhstan, Maldives, New Zealand, and Samoa. However, there is a downward trend over FYs 2018–2021 across the full population of surveyed revenue bodies, indicating a general slowing of staff movements into and out of revenue bodies across the region, especially in FY2020, when the COVID-19 pandemic began its spread across the region, and a small rise in FY2021 as many revenue bodies recommenced rebuilding their workforces with recruitment activity.

Regional Comparisons of the Resources for Tax Administration

Relative Staffing Levels

Appendix Table A.10 sets out data reported by revenue bodies on their estimated annual staff usage for tax administration (expressed in terms of FTEs). To reflect a degree of relativity across the population of revenue bodies surveyed, the data for FY2021 are contrasted with published labor force and citizen population data to compute two staffing comparability ratios: (i) number of labor force participants/one revenue body FTE, and (ii) number of citizens/one revenue body FTE.

As is evident from Figure 6.5, the ratios vary enormously across the economies reported, and highlight the relatively low staff strength of revenue bodies in many developing or low-income economies—Bangladesh, Cambodia, India, Nepal, Pakistan, Papua New Guinea, the Philippines, Solomon Islands, Sri Lanka, and Timor-Leste. It should also be noted that the ratios computed for a few economies are not entirely comparable with the broader population. For example, revenue bodies in Brunei Darussalam, Palau, and Vanuatu all administer tax systems that are comparatively narrow in their scope, while the IRBM in Malaysia administers only direct taxes.

Figure 6.5: Labor Force Participants and Citizens/Staff Full-Time Equivalents, FY2021
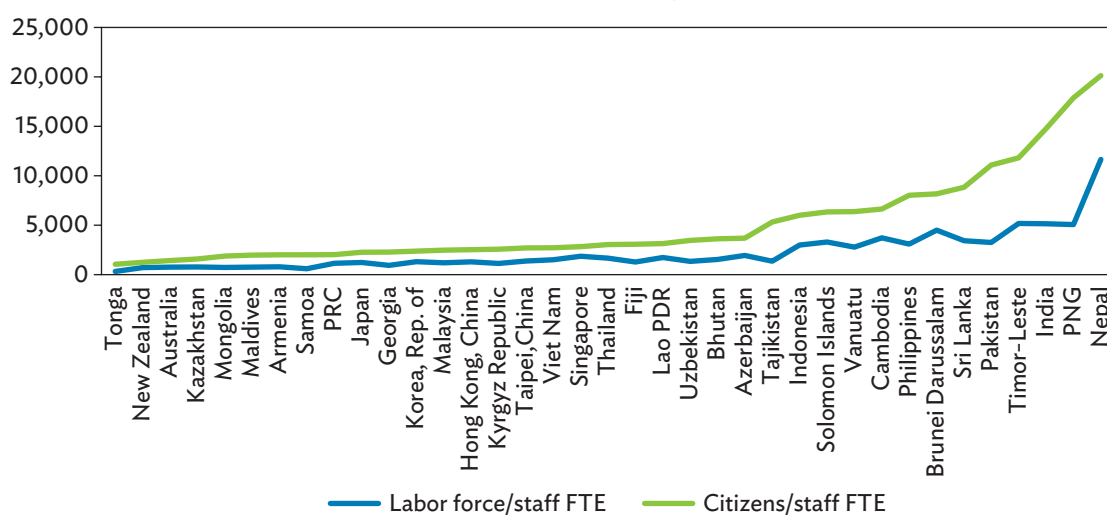
FTE = full-time equivalent, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.

Sources: ISORA 2022; ADB. 2022e. *Key Indicators for Asia and the Pacific.* Manila.

Allocation of Staff Resources to Key Tax Functions

Achieving an optimal allocation of resources within a limited funding envelope is a challenging task for all revenue bodies. On the one hand, staff resources must be allocated to deal with essential work streams such as registering taxpayers, processing tax returns and payments, and answering inquiries. On the other, resources must also be devoted to other important, albeit discretionary, categories of work, such as taxpayer education, verifying taxpayers' returns, and collecting tax debts. Resources must also be allocated to support capabilities such as ICT operations, personnel, and staff development, which are an essential feature of a well-functioning tax administration. With the COVID-19 pandemic stretching well into FY 2021 for many economies, staff resource allocation has likely assumed even greater attention, given the requirement to quickly support changed tax policies and new programs, to provide ongoing support to other government agencies, and/or to maintain remote working arrangements for many staff.

For ISORA 2022, revenue bodies were requested to indicate the approximate allocation of their staff resources (in FTE terms) in FY2021 across four "functional groups" (Table 6.1).

Table 6.1: ISORA Reporting on Staff Resource Usage (by functional groupings)

Functional Group	Definition
Registration, taxpayer services, returns and payment processing	Functions at headquarters and operating offices related to taxpayer registration; taxpayer services and education; processing returns and payments, including electronic returns and payments; reconciling accounts; processing refunds
Audit, investigation, other verification	Functions at headquarters and operating offices related to audit, investigation and other tasks involved with verification of taxpayer statements and claims
Enforced debt collection, etc.	Functions at headquarters and operating offices related to debt collection and enforcement
Other functions	Functions including finances; human resource management; disputes management; and ICT activities related to software development, ICT infrastructure, security, maintenance, and other ICT functions

ICT = information and communication technology, ISORA = International Survey on Revenue Administration.
Source: ISORA 2022 guidelines.

The ISORA data reported by revenue bodies on their staff allocations to these groupings of work for FY2021 are set out in Appendix Table A.11 and included in summary form in Figure 6.6, along with comparable information for prior fiscal years. The data presented are subject to some limitations and qualifications:

- Eight revenue bodies failed to report full or any data, including five (Bangladesh, Bhutan, India, Nepal, and Pakistan) that are organized principally on a tax-type basis, as opposed to the more modern functionally organized revenue administration observed in most economies.
- The data reported by around one-fourth of revenue bodies for the resource category "other functions" are material (exceeding 50%) and, as a result, limit analysis of how a large proportion of the resources of these revenue bodies is being utilized for tax administration purposes.
- All data reported should be interpreted with care as the functional groupings within the ISORA survey framework may not readily align with the organizational structures of some revenue bodies, meaning that some level of estimation may have been used for ISORA reporting purposes. It is also possible that some revenue bodies have interpreted the functional groupings differently when calculating the data to be reported.

For all these reasons, readers should view the data as broad estimates of the values they represent rather than as precise absolute values.

Figure 6.6: Staff Resource Usage, FYs 2019–2021 (% of FTEs)
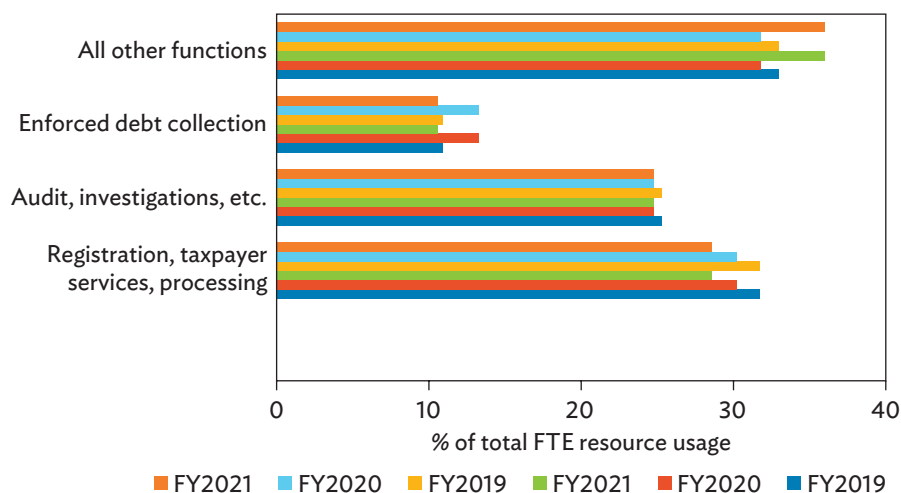
FTE = full-time equivalent, FY = fiscal year.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Notwithstanding the limitations highlighted, some useful observations can be made of data reported:

- Allocations for registrations, taxpayer services, and returns and payments processing averaged 28.5% in FY2021 and varied to a significant degree, ranging from 4% to 64% across revenue bodies. Viewed in aggregate, the allocations appear unusually high (i.e., 50% or greater) in five economies (i.e., Hong Kong, China; Japan; Palau; the ROK; and Tajikistan).

- Resource allocations for verification averaged 24.8% in FY2021 and varied significantly across revenue bodies, ranging from 6% to 62%. At the aggregate level, reported allocations appear relatively high (i.e., over 50%) for four revenue bodies (i.e., the Cook Islands, Georgia, the Philippines, and Sri Lanka) and very low (i.e., below 10%) for revenue bodies in Hong Kong, China; Tajikistan; Tonga; and Vanuatu.

- Staff allocations for the enforced debt collection function averaged 10.6% and were subject to less overall variation, although they still ranged from 2% to 47%. Rates of 5% or less, which are relatively low by advanced economy standards, were reported by seven revenue bodies (i.e., Indonesia; the Lao PDR; the Philippines, Sri Lanka; Taipei,China; Timor-Leste; and Viet Nam). Their significance needs to be appraised in the context of their respective debt inventories, as set out in Chapter 4.

- Staff allocations reported for the "other functions" category averaged 36% and were significantly influenced by exceptionally high allocations (i.e., over 50%) by revenue bodies in nine economies.

Viewed across the 3 fiscal years, the data reveal a small downward trend in the average allocations for the category of registration, services, returns, and payments processing while allocations for "audits and investigations etc." and "enforced debt collection" work remained relatively constant. The data for the category "other functions" indicate some volatility and, of some concern, were at their highest for FY2021.

A conclusion from all the data reported over recent fiscal years is that this aspect of ISORA reporting has become less useful, given the number of revenue bodies either reporting no data or reporting a large share of their staff resources to the "other functions" category. This deficiency is expected to be ameliorated in ISORA 2023, which will include an expanded and more concise system for classifying staff resource usage.

Allocation of Staff Resources to Headquarters Functions

ISORA also seeks to gather data on the numbers of resources used for what are termed "headquarters functions." Headquarters functions represent an core feature of a revenue body's organizational setup and need to be adequately resourced to effectively support revenue administration at a national level.

For ISORA, the term "headquarters functions" is defined as *those central units or functions of a tax administration not normally involved in operational activity or casework. Headquarters generally include overarching functions such as strategic planning, development and approval of corporate policies, processes and procedures, reporting, monitoring and evaluation of organizational performance, and the management of information technology and its procurement, and procurement. They can also include providing high level technical advice on interpretation of the laws and advice to the MOF and government on tax policies and their administration.*

The data reported by revenue bodies are set out in Appendix Table A.10. As will be apparent, the data are highly variable, ranging from 2% to 100%. Factors likely to explain these variations include:

(i)   differences in institutional setups—highly centralized models for managing tax operations compared with setups that are more decentralized and include a layer of regional offices with oversight responsibilities;

(ii)   the co-location of both "headquarters' functions" and tax administration operational activities in revenue bodies of very small economies; and

(iii)   differences across revenue bodies in their interpretation of the term "headquarters functions."

Figure 6.7: Workforce by Average Age and Share in Younger Age Groups, FY2021

Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.

Source: ISORA 2022.
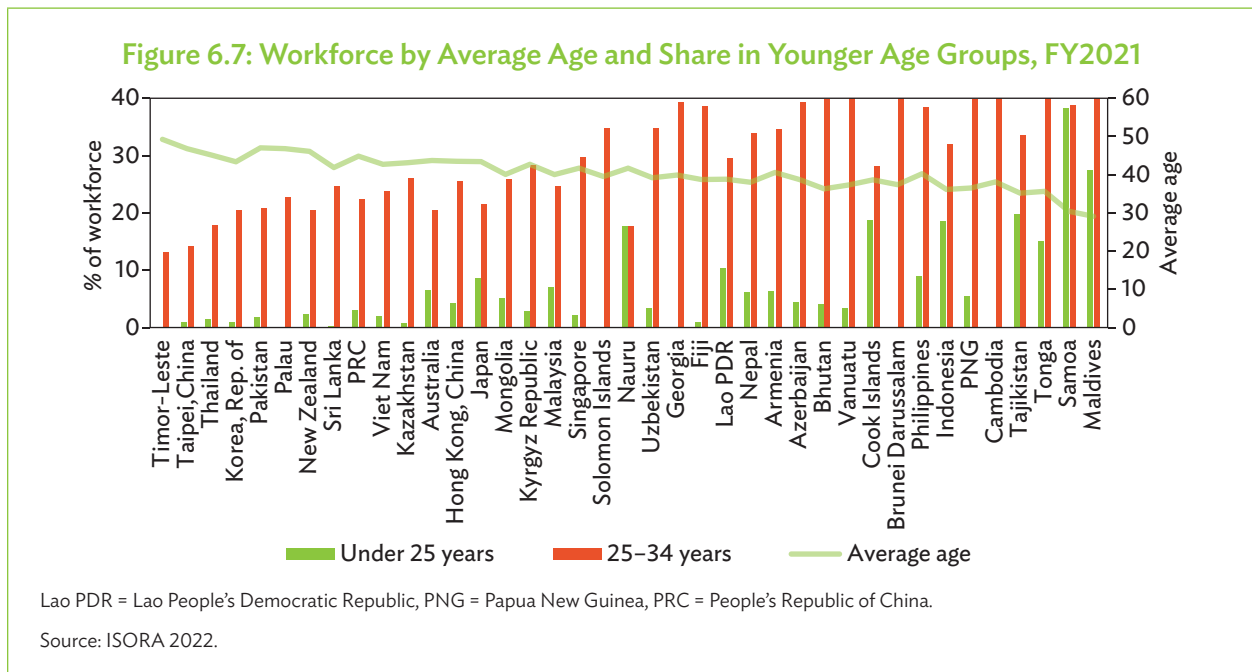
Across the 36 revenue bodies reporting data, just over 55% indicated a share of staff resources for their "headquarters functions" in the range of 5%–20% of total staff resources.

C. The Demographics of Revenue Bodies' Workforces

Most revenue bodies were able to report the full suite of ISORA data concerning the demographics of their respective workforces, including age and length of service staffing profiles, numbers of staff with academic qualifications, numbers of staff in executive positions, and workforce gender mix in FY2021 (Appendix Tables A.20 to A.23). The data reported, along with data from previous ISORA reporting, provide rich insights into the composition of the workforces of participating revenue bodies.

Age and Length of Service Profiles of Workforce

The age and length of service profiles of revenue bodies' workforces in Asia and the Pacific generally reflect a relatively young workforce—see Figures 6.7 and 6.8. That said, within the region, a few extremes are observed in the age and length of service patterns of revenue bodies' workforces.

For six revenue bodies there is a relatively high proportion of staff (i.e., 50% or more) aged under 35 years and with less than 10 years of service: Cambodia, Maldives, Papua New Guinea, Samoa, Tajikistan, and Tonga. Of these revenue bodies, several also have relatively high rates of staff churn, suggesting that staff retention maybe an issue. Investments in staff development programs and career progression strategies will be especially critical for these revenue bodies over the short and medium term as they seek to rebuild their tax revenue bases in the aftermath of the COVID-19 pandemic.

Several revenue bodies have a fair proportion of their workforce (i.e., 20% or more) approaching retirement age (55 years or older). These include Australia (20.3%); Hong Kong, China (20.1%); New Zealand (28.2%); Pakistan (28.5%); Palau (22.7%); Taipei,China (25.1%); and Timor-Leste (20.4%). Departures of relatively large numbers of experienced staff over a short time frame can result in significant losses of corporate knowledge and, unless anticipated, serious gaps in skills over the short to medium term. An important consideration for these revenue bodies, therefore, concerns whether they have developed a sufficiently robust workforce planning system that takes account of such factors and is able to assist them to predict and meet their future workforce requirements.

Figure 6.8: Workforce with Less than 10 Years of Service, FY2021 (%)

FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Source: ISORA 2022.
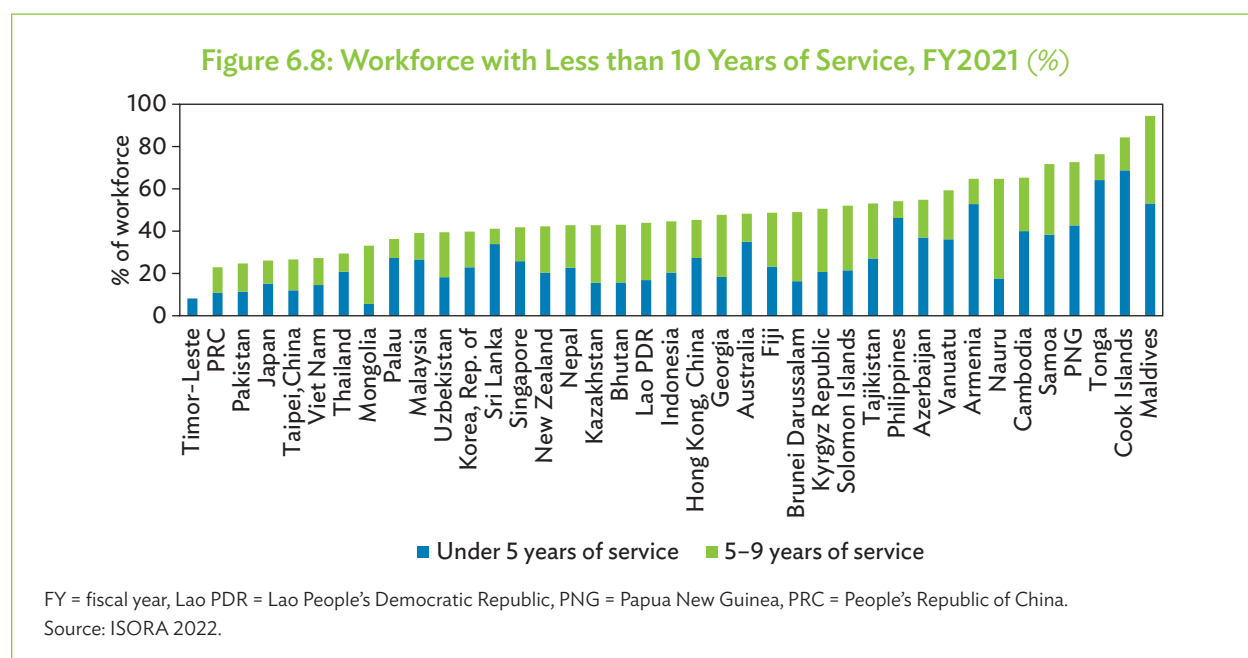
Academic Qualifications of Workforce

Revenue bodies typically require staff for complex technical and financial investigatory-related work and, for these reasons, need academically and/or professionally qualified lawyers, tax accountants, auditors, and investigators. These requirements are likely to be especially significant for those economies that rely to a fair degree on income taxes, in particular CITs, and where there are relatively large numbers of taxpayers with international dealings. Professionally qualified staff are also required in other areas of tax administration, including information technology, human resource management, and senior management. Increasingly over the past decade or so there has been a trend across revenue bodies in some advanced and developing economies to also employ staff with skills in economic and behavioral analysis, and the data sciences, including advanced analytics.

Data reported in ISORA on the proportion of staff with academic qualifications are set out in Appendix Tables A.20 and A.21. These data need to be interpreted with care, as several revenue bodies report what appear to be an abnormally large proportion of their staff with the equivalent of a Masters degree qualification, while also reporting an extremely high proportion of their total staff with academic qualifications.

Figure 6.9 depicts the proportion of all revenue body staff reported with academic qualifications in FY2021. As will be evident, the rates reported vary significantly across both advanced and developing economies, and from region to region. However, the strong emphasis that many governments give to academic achievement and the recruitment focus of many revenue bodies are clearly apparent for many revenue bodies, especially in the Central and West Asia, East Asia, and Southeast Asia regions. Overall, just over 65% of revenue bodies reported having a workforce where over 50% of its staff had academic qualifications.

Figure 6.9: Workforce with Academic Qualifications, FY2021 *(%)*

FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Source: ISORA 2022.
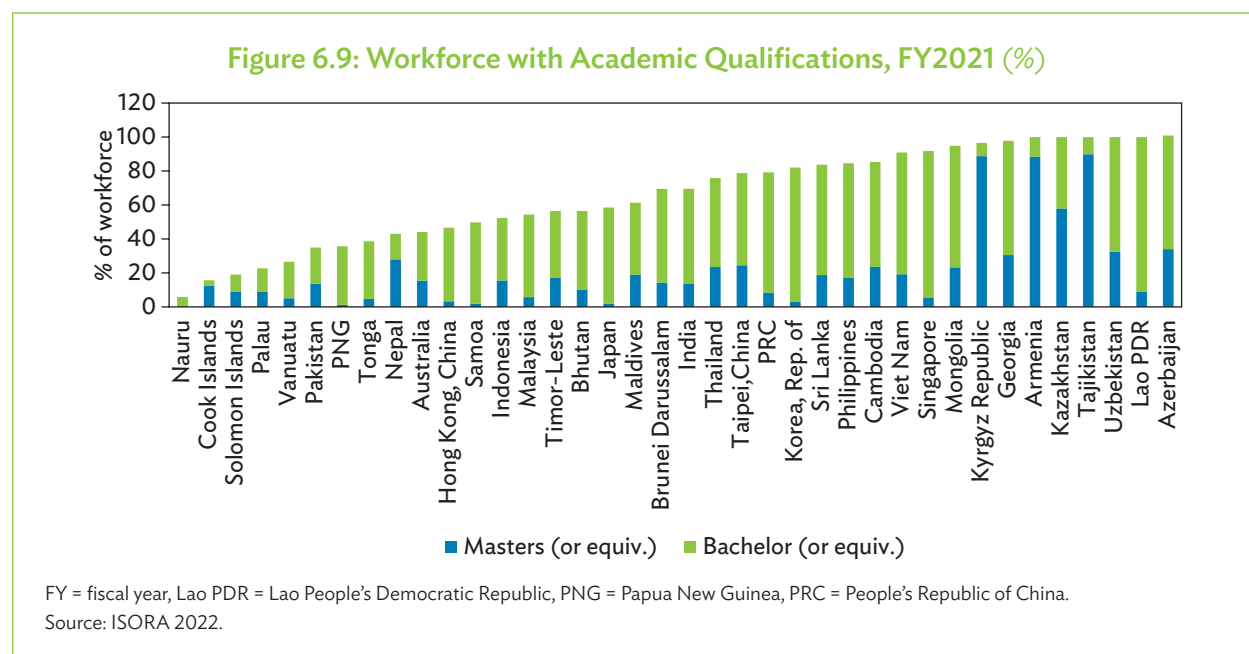
Across all economies, the unweighted average proportion of revenue bodies' workforces with academic qualifications in FY2021 was 65.4%, falling between the unweighted average proportions reported for FY2020 (60.5%) and FY2019 (72.4%).

Workforce Gender and Gender Equality

The United Nations Sustainable Development Goals (SDGs), adopted in 2015, set targets for global development to be achieved by 2030. Economies in Asia and the Pacific are working toward achieving the 17 goals and 169 targets that comprise the SDG framework.

SDG 5 provides a clear signal to governments and other stakeholders (including public sector bodies) on the goals to be achieved for women—**achieve gender equality and empower all women and girls**. A broad range of statistical indicators are used to track the progress of individual economies toward meeting the SDGs and in relation to gender equality, including:

(i)   **End all forms of discrimination against all women and girls everywhere.** This is monitored by regularly assessing the extent to which legal frameworks are in place to promote, enforce, and monitor equality and nondiscrimination based on gender.

(ii)   **Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.** This is monitored by means of regularly measuring and reporting on proportion of women in managerial positions.

Data obtained from ISORA 2018, set out in ADB's 2020 edition of this series, found that most revenue bodies reported having a diversity policy in place that promoted and supported equal opportunity within their respective workforces.

In previous editions of this series, data revealed relatively few female staff in some revenue bodies, with significant disparities in many revenue bodies between the proportion of women in senior management or executive (leadership) positions, and the number of female staff in their total workforce. While factors causing such disparities are understood, globally there is increasing recognition that gender equality is vital to achieve higher levels of inclusive growth and national well-being for everyone. Such recognition underpins SDG targets on gender equality.

Gender Mix of Revenue Bodies' Workforces

ISORA 2022 and historical survey data on workforce composition and gender—see Appendix Tables A.22 and A.23—enable an assessment of revenue bodies' progress in advancing female representation in their respective workforces, especially in managerial and executive roles.

(i)   *Women in the Workforce*

Figure 6.10 depicts the gender mix (i.e., the ratio of female to male officials) of revenue bodies' workforces across Asia and the Pacific in FY2021. As will be apparent, the ratio varies enormously, exceeding 75:25 (female: male) in the Cook Islands; Nauru; Taipei,China; and Thailand to a level around 10:90 in Pakistan and Uzbekistan. More broadly, in around one-third of revenue bodies surveyed, the ratio fell below a female share of 40% in FY2021, a benchmark still well short of equality.

Figure 6.10: Workforce Gender Mix, FY2021 (%)

FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Source: ISORA 2022.
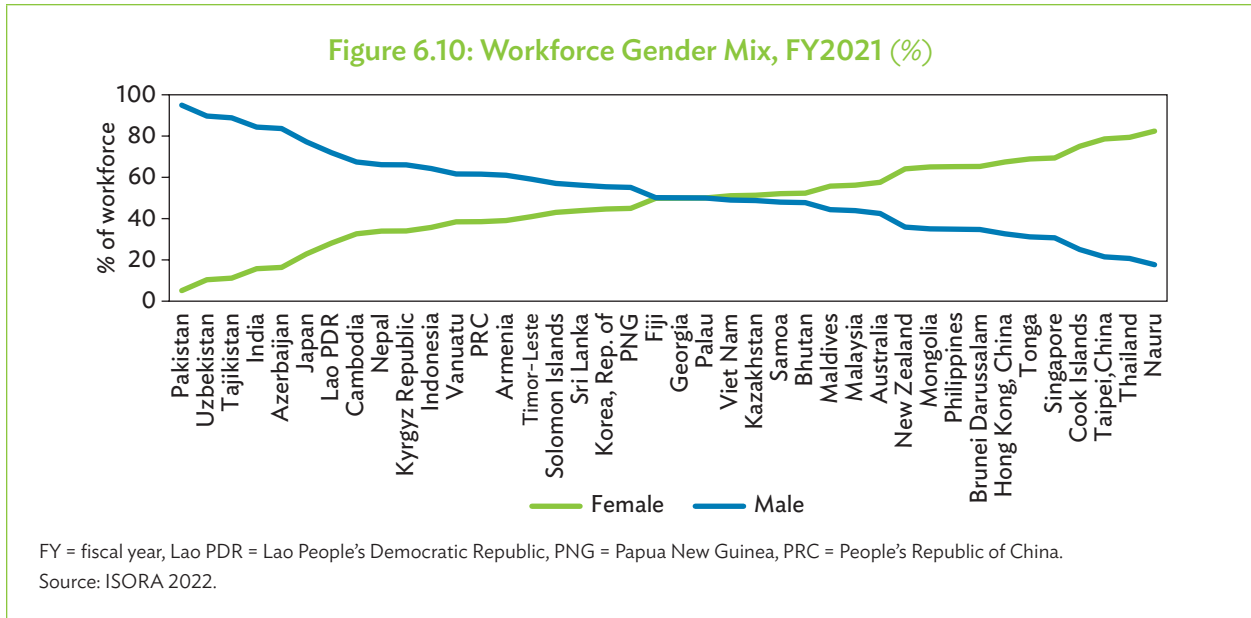
However, there are some indications of progress in improving female representation. Data reported over multiple ISORAs (in respect of FYs 2016–2021) for 27 revenue bodies—see Figure 6.11 and Appendix Table A.23—indicate that 10 revenue bodies noticeably increased their level of female representation over the period in absolute terms—Australia (+9.9%); Cambodia (+5.8%); Fiji (+7.1%); Indonesia (+5.9%); Kazakhstan (+10.9%); Malaysia (+11.9%); the ROK (+6.6%); Solomon Islands (+13.0%); Taipei,China (+17.8%); and Viet Nam (+9.3%).

Figure 6.11: Female Representation in Workforce, FYs 2016 and 2021
(% of workforce)

FY = fiscal year, PNG = Papua New Guinea, PRC = People's Republic of China.
Sources: ISORA 2018; ISORA 2022.
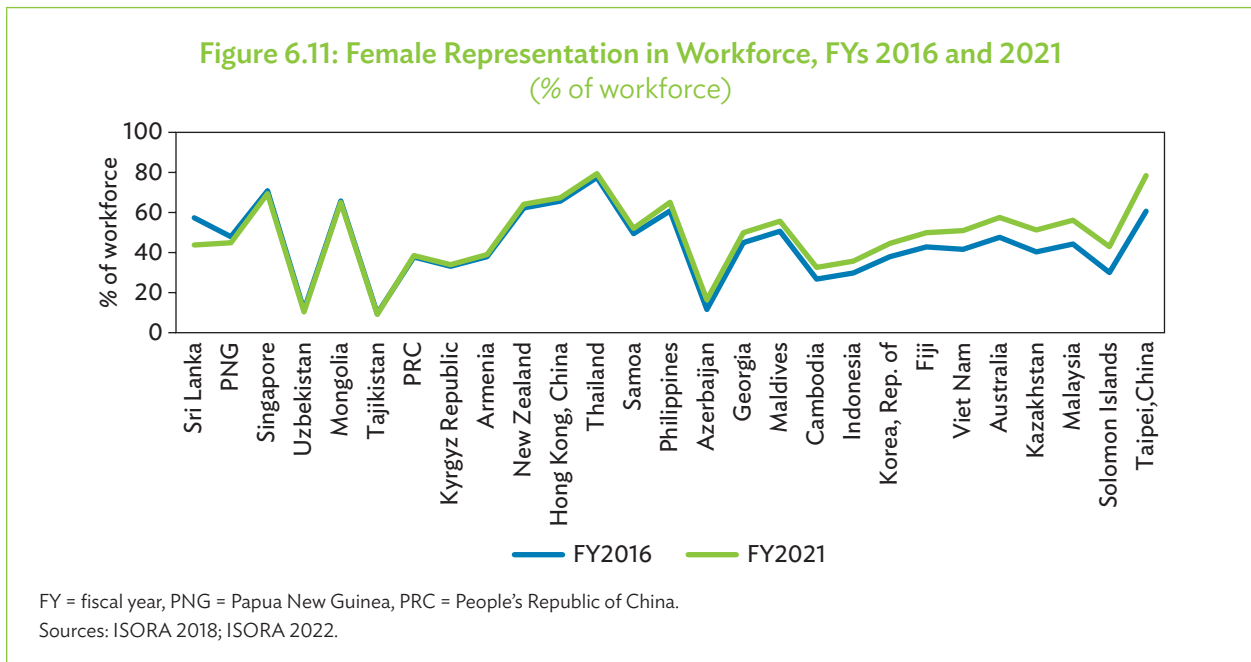
(ii)   *Women in Executive/Senior Management Positions*

In line with the SDGs, ISORA also gathers comparable data on the proportion of women in executive positions. For this purpose, it defines the term "executive" as follows: *Executive level positions would generally be found within the senior management ranks of an organization and typically have high levels of responsibility, and their roles are usually broad in scope, and often oversee large numbers of staff/ activities.*

This (revised) definition of executive was adopted in ISORA 2020 (for FYs 2018 and 2019) to provide clearer guidance to revenue bodies when determining the precise data to be reported, with a view to improving data comparability across economies. While the new (revised) definition has led to improvements in data comparability, there continue to be instances where the data reported suggest that the definition is still subject to a very liberal interpretation of its scope. The data reported for FY2021 should accordingly be viewed with care, bearing this observation in mind.

Appendix Tables A.22, A.23, and A.24 set out data reported on numbers of female and male executive staff. Accepting the interpretation of "executive" applied at the level of individual revenue bodies, the data reported for FY2021 in respect of female staff (i.e., numbers of females overall and in executive positions) continue to reveal a relatively wide level of gender imbalance across Asia and the Pacific, with several revenue bodies having significant imbalances (i.e., over 20%) in absolute terms. These imbalances are apparent in Figure 6.12 and are seen across a broad mix of economies in the region (i.e., Bhutan, Cambodia, the Cook Islands, Fiji, Georgia, Indonesia, the Kyrgyz Republic, Maldives, Nepal, the PRC, the ROK, Solomon Islands, Tonga, and Viet Nam).

Figure 6.12: Female Staff and Female Executives, FY2021 (% of workforce)

FY = fiscal year, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.
Source: ISORA 2022.

(iii)   *Female Representation at the Aggregate Level*

Relative levels of female participation can also be gauged by examining ISORA data *at the aggregate level* over the 6 fiscal years since 2016 and assessing the overall extent of change over this period. From this perspective, the data show that the proportion of female staff employed by revenue bodies fell marginally—from 40% to just under 38%—while the proportion of women in executive positions also fell—from 28.5% to just under 25% (Table 6.2). However, closer analysis of all the data reported over this period has identified several factors that explain this picture of declining female representation at the aggregate level.

Table 6.2: Overall Changes in Female Participation across Asia and the Pacific, FYs 2016–2021

Fiscal Year	Revenue Bodies (no.)[a]	Total Workforce	Total Females	Total Executives[b]	Total Female Executives	Females (% of workforce)	Female Executives (% of all executives)
2016	26	630,671	252,899	40,033	11,409	40.1	28.5
2019	29	994,262	396,710	52,754	8,651	39.9	16.4
2020	39	1,038,173	408,001	57,640	13,891	39.3	24.1
2021	40	1,104,651	416,541	46,382[a]	11,554	37.7	24.9

FY = fiscal year.

[a] No data were reported by Bangladesh for FY2021.

[b] Three revenue bodies reported large reductions in their overall number of executives in FY2021 compared with FY2020— Cambodia (–1,844), Kazakhstan (–3,254), and the People's Republic of China (–3,490).

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Significant structural changes made to the organization of tax administration in the PRC in 2018–2019 resulted in overall employee numbers reported in ISORA 2020, compared with ISORA 2018, increasing by around 334,000 (comprising around 60% male staff) between end-2016 and end-2019. In addition, the inclusion in ISORA reporting in more recent years of gender-related data for Bangladesh, Japan, and Pakistan, all economies where the respective revenue bodies oversee relatively large male-dominated workforces— Bangladesh (81% in FY2020), Japan (78% in FY2021), and Pakistan (95% in FY2021)—also negatively affected the overall level of female representation in the fiscal years concerned.

Putting these factors to one side, Figure 6.12 and the data in Appendix Table A.22 reveal that increased levels of overall female representation were achieved across most revenue bodies in Asia and the Pacific, occurring in 21 of the 27 revenue bodies reporting data for both FY2016 and FY2021. Revenue bodies with increases exceeding 10% in absolute terms over this period were Kazakhstan (10.9%); Malaysia (11.9%); Solomon Islands (13%); and Taipei,China (17.8%).

Concerning senior roles, the overall numbers of staff reported in executive positions rose from just over 40,000 (28.5% females) in 26 revenue bodies at the end of FY2016 to just over 46,000 (25% females) in 40 revenue bodies at the end of FY2021, noting that the revised definition of "executive" introduced with ISORA 2019 significantly reduced the numbers of both male and female executives in several economies.

The net overall increase in executive numbers is largely explained by the two factors previously mentioned: (i) structural changes made to the organization of tax administration in the PRC in 2018–2019 (+14,000 executives) and (ii) the addition to ISORA of revenue bodies from Bangladesh and Pakistan, both of which reported highly male-dominated workforces and relatively large numbers of male executives (over 4,500) for FY2020 and FY2021, respectively.

Promoting Gender Equality in Tax Administration

Revenue body managers and others seeking further information on potential policies and practices to encourage gender equality within their respective organizations may wish to acquaint themselves with the work of the OECD's FTA and its Gender Balance Network. Copies of all products of the FTA's Gender Balance Network can be found at www.oecd.org/tax/forum-on-tax-administration/about/gender-balance-network/.

Appendixes

Table A.1: Revenue Bodies Included in the Series and Related Information, 2023

| Region/Economy | Name of Revenue Body | Type of Institution | Other Key Administrative Roles | | Tax/FY Ends |
			SSC Collection	Customs	
Central and West Asia					
Armenia	State Revenue Committee	USB	✓	✓	31 December
Azerbaijan	State Tax Service	SDMIN	✓	X	31 December
Georgia	Revenue Service	USB	X	✓	31 December
Kazakhstan	State Revenue Committee	USB	✓	✓	31 December
Kyrgyz Republic	State Tax Service	USB	✓	X	31 December
Pakistan	Federal Board of Revenue	SDMIN	✓	✓	30 June
Tajikistan	Tax Committee	OTH	✓	X	31 December
Uzbekistan	State Tax Committee	MDMIN	✓	X	31 December
East Asia					
China, People's Rep. of	State Taxation Administration	OTH	✓	X	31 December
Hong Kong, China	Inland Revenue Department	SDMIN	X	X	31 March
Japan	National Tax Agency	USB	X	X	31 March
Korea, Rep. of	National Tax Service	USB	X	X	31 December
Mongolia	General Department of Taxation	USB	X	X	31 December
Taipei,China	Taxation Administration	SDMIN	X	X	31 December
Pacific					
Australia	Australian Taxation Office	USB	X	X	30 June
Cook Islands	Revenue Management Division	MDMIN	X	✓	30 June
Fiji	Fiji Revenue and Customs Service	USBB	X	✓	31 December
Nauru	Nauru Revenue Office	MDMIN	X	X	30 June
New Zealand	Inland Revenue Department	USB	X	X	31 March
Palau	Bureau of Revenue and Taxation	SDMIN	X	X	30 September
Papua New Guinea	Internal Revenue Commission	USB	X	X	31 December
Samoa	Ministry of Customs and Revenue	MDMIN	X	✓	30 June
Solomon Islands	Inland Revenue Division	MDMIN	X	X	31 December
Tonga	Ministry of Revenue and Customs	MDMIN	X	✓	30 June
Vanuatu	Customs and Inland Revenue Department	MDMIN	X	✓	31 December
South Asia					
Bangladesh	National Board of Revenue	OTH	X	✓	30 June
Bhutan	Department of Revenue and Customs	SDMIN	X	✓	30 June
India	Central Board of Direct Taxes	OTH	X	X	31 March
Maldives	Maldives Inland Revenue Authority	USBB	X	X	31 December
Nepal	Inland Revenue Department	SDMIN	X	X	15 July
Sri Lanka	Inland Revenue Department	SDMIN	X	X	31 December
Southeast Asia					
Brunei Darussalam	Revenue Division	MDMIN	X	X	31 March
Cambodia	General Department of Taxation	SDMIN	X	X	31 December
Indonesia	Directorate General of Taxes	SDMIN	X	X	31 December
Lao PDR	Tax Department	SDMIN	X	X	31 December
Malaysia	Inland Revenue Board of Malaysia	USBB	X	X	31 December
Philippines	Bureau of Internal Revenue	SDMIN	X	X	31 December
Singapore	Inland Revenue Authority of Singapore	USBB	X	X	31 March
Thailand	Revenue Department	SDMIN	X	X	30 September
Timor-Leste	Timor-Leste Tax Authority	MDMIN	X	X	31 December
Viet Nam	General Department of Taxation	SDMIN	X	X	31 December

✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, MDMIN = multiple directorates within the ministry of finance (or its equivalent), OTH = unique institutional model, SDMIN = single directorate within the ministry of finance (or its equivalent), SSC = social security contribution, USB = unified semiautonomous body, USBB = unified semiautonomous body accountable to a board.

Source: ISORA 2018; ISORA 2022; ADB. 2022e. *Key Indicators for Asia and the Pacific 2022*. Manila.

Table A.2a: ADB Members (Asia/Pacific)—Demographic, Economic, and Social Indicators (Part 1)

Region/Economy	Population (millions)		Citizens Aged 15–64 Years (% of total)	GNI per Capita, Atlas Method (current $)		Rate of Growth in Real GDP (%)	
	Citizens	Labor Force		2020	2021	2020	2021
Central and West Asia							
Armenia	3.0	1.2	66.9	4,220	4,560	−7.2	5.7
Azerbaijan	10.1	5.3	69.5	4,480	4,880	−4.2	5.6
Georgia	3.7	1.5	64.2	4,260	4,740	−6.8	10.5
Kazakhstan	19.0	9.3	62.7	8,710	8,720	−2.5	4.3
Kyrgyz Republic	6.6	2.9	62.5	1,180	1,180	−8.4	6.2
Pakistan	224.8	65.8	61.0	1,460	1,500	−0.9	5.7
Tajikistan	9.8	2.5	59.3	1,050	1,150	4.4	9.2
Uzbekistan	34.9	13.6	66.2	1,740	1,960	1.9	7.4
East Asia							
China, People's Rep. of	1,412.6	791.4	70.0	10,530	11,890	2.2	8.4
Hong Kong, China	7.4	3.8	68.1	48,560	54,450	−6.5	6.4
Japan	125.7	68.6	59.0	40,810	42,620	−4.5	1.6
Korea, Rep. of	51.7	28.4	71.2	32,930	34,980	−0.7	4.1
Mongolia	3.4	1.3	64.3	3,740	3,760	−4.6	1.6
Taipei,China	23.5	11.9	70.8	28,712	32,149	3.4	6.5
Pacific							
Australia	25.7	13.8	64.2	53,680	56,760	0	1.5
Cook Islands	0.018	0.008	63.9	15,695	...	−25.4	−29.1
Fiji	0.89	0.37	65.1	4,930	4,860	−17.2	−5.1
Nauru	0.012	0.004	59.9	17,330	19,470	0.7	1.5
New Zealand	5.1	2.9	64.0	41,480	45,340	−1.4	...
Palau	0.017	0.011	70.2	14,390	...	−9.7	−17.1
Papua New Guinea	9.9	2.8	61.5	2,720	2,790	−3.5	0.1
Samoa	0.20	0.06	57.7	4,050	3,860	−10.1	−7.1
Solomon Islands	.71	0.37	56.4	2,300	2,300	−3.4	−0.5
Tonga	0.098	0.03	59.7	5,190	...	0.7	−2.7
Vanuatu	0.3	0.13	58.2	3,240	3,140	...	1.0
South Asia							
Bangladesh	171.7	70.9	68.4	2,340	2,620	3.5	6.9
Bhutan	0.8	0.34	69.1	2,840	...	−10.1	4.1
India	1,370.0	476.7	67.4	1,910	2,170	−6.6*	9.1
Maldives	0.6	0.23	76.4	6,450	8,400	−33.5	41.7
Nepal	29.2	16.9	66.0	1,190	1,230	−2.1	4.2
Sri Lanka	22.2	8.6	64.9	3,720	3,820	−3.5	3.5
Southeast Asia							
Brunei Darussalam	0.4	0.22	72.1	31,510	...	1.1	−1.6
Cambodia	16.6	9.3	64.3	1,510	1,550	−3.1	3.0
Indonesia	272.7	135.7	67.9	3,870	4,140	−2.1	3.7
Lao PDR	7.1	3.9	64.0	2,490	2,520	3.3	2.3
Malaysia	32.7	15.8	69.3	10,570	10,930	−5.6	3.1
Philippines	110.2	42.5	64.7	3,430	3,640	−9.5	5.7
Singapore	5.5	3.6	73.3	55,010	64,010	−4.1	8.9
Thailand	69.7	38.2	70.2	7,070	7,260	−6.2	1.5
Timor–Leste	1.3	0.57	59.1	1,990	1,940	-8.6	2.9
Viet Nam	98.5	54.7	68.6	3,390	3,560	2.9	2.6

... = no data at cut-off date, * = provisional, Lao PDR = Lao People's Democratic Republic, GDP = gross domestic product, GNI = gross national income.
Sources: ADB. 2022e. *Key Indicators for Asia and the Pacific 2022.* Manila; ADB. 2023. *Asian Development Outlook, April 2023.* Manila.
International Labour Organization ILOSTAT (accessed January 2022); World Bank data (accessed 6 January 2022).

Table A.2b: ADB Members (Asia/Pacific)—Demographic, Economic, and Social Indicators (Part 2)

Region/Economy	Communications: Access per 100 people, 2020		Human Development Index		Corruption Perceptions Index		COVID-19 Indicators	
	Mobile	Internet	Index, 2021	Change in Ranking, 2015–2021	Index Score, 2022	Net Change, 2016–2022	Cases per 100,000 Citizens	Deaths per 100,000 Citizens
Central and West Asia								
Armenia	118	76	H (0.759)	−5	46	13	11,176	241
Azerbaijan	102	85	H (0.745)	−1	23	−7	5,604	74
Georgia	128	72	VH (0.802)	7	56	−1	21,337	300
Kazakhstan	129	86	VH (0.811)	4	36	7	5,416	69
Kyrgyz Republic	130	51	M (0.692)	0	27	−1	2,823	49
Pakistan	79	25	L (0.544)	−2	27	−5	590	13
Tajikistan	121	...	M (0.685)	3	24	−1	182	1
Uzbekistan	100	71	H (0.727)	11	31	10	567	4
East Asia								
China, People's Rep. of	119	70	H (0.768)	19	45	5	...	...
Hong Kong, China	292	92	VH (0.952)	3	76	−1	164	3
Japan	154	90	VH (0.925)	0	73	1	1,361	14
Korea, Rep. of	137	96	VH (0.925)	3	63	10	777	6
Mongolia	133	62	H (0.739)	4	33	−5	11,625	59
Taipei,China	23	89	...	...	68	7	63	4
Pacific								
Australia	108	90	VH (0.951)	3	75	−4	760	8
Cook Islands	97	...	...	...	...	...	...	...
Fiji	111	69	H (0.730)	3	53	...	5,893	77
Nauru	92	...	...	...	...	...	...	...
New Zealand	127	...	VH (0.937)	−3	87	−3	181	1
Palau	133	...	H (0.767)	−7	...	...	...	...
Papua New Guinea	54	...	M (0.558)	2	30	2	357	4
Samoa	35	...	H (0.707)	−6	...	...	2	0
Solomon Islands	69	...	M (0.564)	−1	42	0	3	0
Tonga	59	...	H (0.745)	10	...	...	...	...
Vanuatu	80		M (0.607)	3	48	2 (2017)	1	<1
South Asia								
Bangladesh	107	25	M (0.661)	11	25	−1	963	17
Bhutan	97	54	M (0.666)	6	68	3	343	<1
India	84	43	M (0.645)	−1	40	0	2,519	33
Maldives	133	63	H (0.747)	6	40	4	16,993	47
Nepal	131	38	M (0.602)	4	34	5	2,854	37
Sri Lanka	139	35	H (0.782)	9	36	0	2,434	64
Southeast Asia								
Brunei Darussalam	123	95	VH (0.829)	−3	60 (2020)	2	3,317	21
Cambodia	126	...	M (0.593)	3	24	3	726	17
Indonesia	130	54	H (0.705)	3	34	−3	1,566	53
Lao PDR	56	34	M (0.607)	1	31	1	801	2
Malaysia	135	90	VH (0.803)	1	47	−2	8,012	93
Philippines	136	50	M (0.699)	0	33	−2	2,607	43
Singapore	144	92	VH (0.939)	−1	83	−1	4,291	11
Thailand	167	78	H (0.800)	6	36	1	2,926	29
Timor-Leste	104	29	M (0.607)	−4	42	7	1,532	9
Viet Nam	143	70	H (0.703)	5	42	9	1,090	24

... = no data at cut-off date, ADB = Asian Development Bank, COVID-19 = coronavirus disease, H = high, L = low, Lao PDR = Lao People's Democratic Republic, M = medium, VH = very high.

Notes: Reported values as of year ended 31 December 2022.

Sources: Transparency International Corruption Perceptions Index (accessed 1 May 2022); ADB COVID-19 Policy Database (accessed 31 December 2022); United Nations Human Development Index (accessed 31 January 2023).

Table A.3a: Revenue Types for Which the Revenue Body Has Responsibility, FY2021 (Part 1)

| | Types of Revenue | | | | | | |
| | Income Tax | | Value-Added Tax | Excises (domestic) | Other Taxes | | |
Region/Economy	Personal	Corporates/ Other Entities			Motor Vehicle	Real Property	Wealth
Central and West Asia							
Armenia	✓	✓	✓	✓	✓	✓	X
Azerbaijan	✓	✓	✓	✓	X	✓	X
Georgia	✓	✓	✓	✓	X	✓	X
Kazakhstan	✓	✓	✓	✓	✓	✓	X
Kyrgyz Republic	✓	✓	✓	✓	✓	✓	X
Pakistan	✓	✓	✓	✓	X	X	X
Tajikistan	✓	✓	✓	✓	✓	✓	✓
Uzbekistan	✓	✓	✓	✓	X	X	X
East Asia							
China, People's Rep. of	✓	✓	✓	✓	✓	✓	X
Hong Kong, China	✓	✓	X	X	X	✓	X
Japan	✓	✓	✓	✓ ᵃ	✓	X	X
Korea, Rep. of	✓	✓	✓	✓	X	X	X
Mongolia	✓	✓	✓	✓	✓	✓	X
Taipei,China	✓	✓	✓	✓	✓	✓	X
Pacific							
Australia	✓	✓	✓	✓	✓	X	X
Cook Islands	✓	✓	✓	X	X	X	X
Fiji	✓	✓	✓	✓	X	✓	X
Nauru	✓	✓	X	X	X	X	X
New Zealand	✓	✓	✓	X	X	X	X
Palau	✓	✓	X	X	✓	✓	X
Papua New Guinea	✓	✓	✓	X	X	X	X
Samoa	✓	✓	✓	X	X	X	X
Solomon Islands	✓	✓	X	X	✓	✓	X
Tonga	✓	✓	✓	X	X	X	X
Vanuatu	X	X	✓	✓	✓	X	X
South Asia							
Bangladesh	✓	✓	✓	✓	X	X	X
Bhutan	✓	✓	X	✓	✓	✓	✓
India	✓	✓	✓	✓	X	X	X
Maldives	✓	✓	✓	X	✓	✓	X
Nepal	✓	✓	✓	✓	X	X	X
Sri Lanka	✓	✓	✓	X	X	X	X
Southeast Asia							
Brunei Darussalam	X	✓	X	X	X	X	X
Cambodia	✓	✓	✓	✓	✓	✓	X
Indonesia	✓	✓	✓	X	X	X	X
Lao PDR	✓	✓	✓	✓	✓	✓	X
Malaysia	✓	✓	X	X	X	✓	X
Philippines	✓	✓	✓	✓	✓	X	X
Singapore	✓	✓	✓	X	X	✓	X
Thailand	✓	✓	✓	X	X	X	X
Timor-Leste	✓	✓	X	X	X	X	X
Viet Nam	✓	✓	✓	✓	X	X	X

✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

ᵃ Japan's National Tax Agency refers to these revenue types as liquor, tobacco, gasoline, and fuel taxes, etc.

Source: ISORA 2022.

Table A.3b: Revenue Types for Which the Revenue Body Has Responsibility, FY2021 (Part 2)

| Region/Economy | Types of Revenue | | | | Nontax Revenues | Employers' Income Tax Withholdings for Employees |
| | Other Taxes | | | | | |
	Estate/Gift	OGS	Other	SSC		
Central and West Asia						
Armenia	X	✓	✓	✓	✓	✓
Azerbaijan	✓	X	✓	✓	✓	✓
Georgia	X	X	✓	X	✓	✓
Kazakhstan	✓	✓	✓	✓	✓	✓
Kyrgyz Republic	X	✓	✓	✓	X	✓
Pakistan	X	✓	✓	✓ ᵃ	X	✓
Tajikistan	X	X	✓	✓	✓	✓
Uzbekistan	✓	X	✓	✓	✓	✓
East Asia						
China, People's Rep. of	X	X	✓	✓	✓	✓
Hong Kong, China	✓	X	✓	X	X	X
Japan	✓	✓	X	X	X	✓
Korea, Rep. of	✓	X	✓	X	✓	✓
Mongolia	X	X	✓	X	X	✓
Taipei,China	✓	✓	✓	X	✓	✓
Pacific						
Australia	X	✓	✓	X	✓	✓
Cook Islands	X	X	✓	X	X	✓
Fiji	X	X	✓	X	X	✓
Nauru	X	X	✓	X	X	✓
New Zealand	X	X	✓	X	✓	✓
Palau	X	X	✓	X	✓	✓
Papua New Guinea	X	X	✓	X	X	✓
Samoa	X	X	✓	X	✓	✓
Solomon Islands	X	✓	✓	X	X	✓
Tonga	X	X	✓	X	X	✓
Vanuatu	X	✓	✓	X	✓	X
South Asia						
Bangladesh	✓	X	✓	X	X	✓
Bhutan	X	X	✓	X	X	✓
India	X	X	✓	X	X	✓
Maldives	X	X	✓	X	✓	✓
Nepal	X	X	✓	✓	X	✓
Sri Lanka	X	X	✓	X	X	✓
Southeast Asia						
Brunei Darussalam	X	X	✓	X	X	X
Cambodia	X	X	✓	X	✓	✓
Indonesia	X	X	✓	X	X	✓
Lao PDR	X	X	X	X	✓	✓
Malaysia	X	X	✓	X	✓	✓
Philippines	✓	✓	✓	X	✓	✓
Singapore	✓	X	✓	X	X	X
Thailand	✓	✓	✓	X	X	✓
Timor-Leste	X	✓	✓	X	X	✓
Viet Nam	X	X	✓	X	✓	✓

✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, OGS = other goods and services (taxes), SSC = social security contribution.

ᵃ This responsibility relates to the Worker Welfare Fund and the Worker Pension Participation Fund.

Source: ISORA 2022.

Table A.4: Tax Revenue Collections of National Revenue Body, FYs 2018–2021

Region/Economy	Tax Revenue Collected by Revenue Body[a] (million, in local currency)				% Change, Tax Collected		
	FY2018	FY2019	FY2020	FY2021	FY2020–FY2019	FY2021–FY2020	FY2021–FY2019
Central and West Asia							
Armenia	1,167,140	1,301,137	1,385,199	1,449,410	6.5	4.6	11.4
Azerbaijan	11,629	13,294	13,676	15,148	2.9	10.8	13.9
Georgia	9,997	10,809	9,938	11,541	−8.1	16.1	6.8
Kazakhstan	8,566,041[b]	9,575,579[b]	8,825,876[b]	11,518,522[b]	−7.8	30.5	20.3
Kyrgyz Republic	74,942	110,654	140,587	196,823	27.1	40.0	77.9
Pakistan	3,251,817	3,157,255	3,373,504	3,977,062	6.8	32.4	41.5
Tajikistan	13,512	14,173	13,859	19,642	−2.2	41.7	38.6
Uzbekistan	63,371,615	97,540,080	128,812,590	159,672,572	32.1	24.0	63.7
East Asia							
China, People's Rep. of	17,885,965	19,450,448	18,886,311	24,090,418	−2.9	27.6	23.9
Hong Kong, China	328,619	341,442	303,572	330,820	−11.1	9.0	−3.1
Japan	55,302,941	56,513,359	54,740,155	58,744,853	−3.1	7.3	3.9
Korea, Rep. of	283,535,467	284,413,643	277,275,291	334,471,410	−2.5	20.9	17.9
Mongolia	6,086,225	7,251,711	5,122,499	9,063,996	−29.4	76.9	25.0
Taipei,China	2,185,721	2,264,274	2,194,011	2,653,990	−3.1	21.0	17.2
Pacific							
Australia	396,620	425,837	404,618	451,379	−5.0	11.6	6.0
Cook Islands	119	120	115	77	−4.2	−33.0	−35.8
Fiji	2,375[b]	2,288[b]	1,276[a]	1,360	−44.2	6.6	−40.6
Nauru	28	41	65	65	58.5	0.0	58.5
New Zealand	81,563	88,137	87,425	103,403	−1.0	18.5	17.3
Palau	...	...	42	24	...	−42.9	...
Papua New Guinea	6,456	7,211	8,076	9,208	12.0	14.0	27.7
Samoa	464[b]	509[b]	508[b]	482[b]	−0.2	−5.1	−5.3
Solomon Islands	1,677[b]	1,522[b]	1,343	1,753	−11.8	30.5	15.2
Tonga	201	205	207	221	1.0	6.8	7.8
Vanuatu	8,235[b]	8,134[b]	9,383	8,513	15.4	−9.3	4.7
South Asia							
Bangladesh	2,023,129	2,207,716	2,164,518	2,493,815	−2.0	15.2	13.0
Bhutan	...	...	...	16,739	...	...	...
India	10,027,384	11,377,185	10,495,490	18,869,916	...[c]	...[c]	...[c]
Maldives	12,607	12,994	8,611	11,918	−33.7	38.4	−8.3
Nepal	358,000	384,000	500,362	595,378[d]	30.3	19.0	55.0
Sri Lanka	900,348	1,025,319	511,190	619,715	−50.1	21.2	−39.6
Southeast Asia							
Brunei Darussalam	...	...	194	186	...	−4.1	...
Cambodia	12,073,372	15,421,950	14,156,794	14,403,560	−8.2	1.7	−6.6
Indonesia	1,313,241,933	1,353,193,198	1,072,105,797	1,278,627,832	−20.8	19.3	−5.5
Lao PDR	10,656,471	11,211,830	13,081,713	12,162,860	16.7	−7.0	8.5
Malaysia	130,033	135,710	110,505	130,107	−18.6	17.7	−4.1
Philippines	1,962,643	2,186,419	1,956,283	2,074,942	−10.5	6.1	−5.1
Singapore	50,226	52,427	53,510	49,589	2.1	−7.3	−5.4
Thailand	1,697,721	1,750,490	1,519,060	1,660,025	−13.2	9.3	−5.2
Timor-Leste	51	49	50	53	2.0	6.0	8.2
Viet Nam	954,021,000	1,053,479,000	1,295,645,000	1,345,590,000	23.0	3.9	27.7

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Total tax revenue in ISORA excludes customs duties and excises on imports collected by revenue bodies that administer customs.

[b] Cambodia, Fiji, Kazakhstan, Nepal, Samoa, Solomon Islands, Tonga, and Vanuatu: Some elements of tax revenue were sourced from OECD Global Tax Database and/or IMF Government Finance Statistics, to address errors (e.g., inclusions of customs-related tax revenues) or gaps in data reported for ISORA (e.g., VAT on imports).

[c] India: Revenue reported for FY2021 is not comparable with prior years owing to inclusion of indirect taxes revenue from FY2021

[d] Nepal: Tax revenue (ISORA) increased by amount of VAT on imports (IMF reporting).

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022; OECD Revenue Statistics in Asian and Pacific Economies, various editions.

Table A.5: Total Nontax and Net Revenue Collections of Revenue Body, FYs 2019–2021

| | Total Revenue Collected by the Revenue Body (million, in local currency) | | | | | |
| | Nontax Revenue | | | All Revenue | | |
Region/Economy	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	0	414	429	1,301,137	1,385,614	1,449,839
Azerbaijan	327	1,335	1,585	13,622	15,011	16,723
Georgia	0	83	149	10,809	10,021	11,690
Kazakhstan	…	…	…			
Kyrgyz Republic	5,760	976	0	116,414	141,563	196,823
Pakistan	0	0	0	3,157,255	3,373,504	3,977,062
Tajikistan	780	657	1,641	14,953	14,516	21,283
Uzbekistan	7,286,584	5,773,327	7,652,750	104,826,664	134,585,918	167,325,322
East Asia						
China, People's Rep. of	633,764	631,607	1,610,273	20,084,212	19,517,918	25,700,691
Hong Kong, China	0	0	0	341,442	303,572	330,820
Japan	0	0	0	56,513,359	54,740,155	58,744,853
Korea, Rep. of	1,004,434	899,816	737,987	285,417,077	278,175,107	335,209,397
Mongolia	24,904	0	0	7,276,615	5,122,499	9,063,996
Taipei,China	390,391	0	23	2,576,112	2,264,274	2,654,014
Pacific						
Australia	85	259	1,418	425,921	404,877	452,797
Cook Islands	0	0	0	120	115	77
Fiji	0	0	0	2,288	1,276	1,360
Nauru	0	0	0	41	65	65
New Zealand	1,600	584	737	89,736	88,009	104,140
Palau	…	0	1	…	42	25
Papua New Guinea	0	0	0	7,211	8,076	9,208
Samoa	5	5	4	514	513	486
Solomon Islands	0	0	0	1,522	1,342	1,753
Tonga	0	0	0	205	207	221
Vanuatu	…	1,204	…	8,134	10,587	8,513
South Asia						
Bangladesh	0	0		2,207,716	2,164,518	2,298,000
Bhutan	…	…	0	…	…	16,739
India	0	0	0	11,377,185	10,495,490	18,869,916
Maldives	3,818	1,870	3,835	16,812	10,481	15,753
Nepal	…	93,730	0	384,000	594,091	595,378
Sri Lanka	0	0	0	1,025,319	511,190	619,715
Southeast Asia						
Brunei Darussalam	…	0	0	…	194	186
Cambodia	0	0	0	15,421,950	14,156,794[a]	14,403,560[a]
Indonesia	0	0	0	1,353,193,198	1,072,105,797	1,278,627,832
Lao PDR	1,588,074	600,392	1,451,800	12,799,904	13,632,772	13,614,660
Malaysia	0	4	2	135,710	110,510	130,109
Philippines	0	0	3,202	2,186,419	1,956,283	2,078,144
Singapore	0	0	0	52,427	53,510	49,589
Thailand	0	0	0	1,750,490	1,519,060	1,660,025
Timor-Leste	0	0	0	49	50	53
Viet Nam	497,595,000	…	…	1,551,074,000	1,356,392,000	1,345,590,000

… = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.
[a] VAT revenue component of total tax revenue sourced from official government report.
Sources: ISORA 2020; ISORA 2021; ISORA 2022; Cambodia's Ministry of Finance and Economy Government Finance Statistics (accessed 9 February 2022).

Table A.6: Revenue Types Collected by Revenue Body, FY2021 (% of total revenue collected)

Region/Economy	Revenue Types Collected by Revenue Body (% share of total revenue collected, FY2021)						
	Income Tax		VAT (including on imports)	Excises (domestic)	Social Security	Other Taxes	Nontax Revenue
	Personal	Corporate					
Central and West Asia							
Armenia	29	11	38	5	3	13	<1
Azerbaijan	7	18	30	7	24	5	9
Georgia	32	9	36	1	0	21	1
Kazakhstan	10	32	24	4	7	4	19
Kyrgyz Republic	6	4	32	1	20	37	0
Pakistan	17	26	50	6	<1	<1	0
Tajikistan	11	11	39	1	10	21	7
Uzbekistan	11	23	23	8	16	15	4
East Asia							
China, People's Rep. of	6	16	25	5	27	15	6
Hong Kong, China	28	39	0	0	0	33	0
Japan	33	19	33	0	0	15	0
Korea, Rep. of	34	21	21	10	0	14	<1
Mongolia	13	26	34	3	0	24	0
Taipei,China	24	26	19	7	0	23	1
Pacific							
Australia	51	26	16	5	0	1	1
Cook Islands	23	21	54	0	0	2	0
Fiji	12	14	34	...	0	39	0
Nauru	30	65	0	0	0	5	0
New Zealand	46	18	34	0	0	1	1
Palau	43	49	0	0	0	4	4
Papua New Guinea	39	24	2	0	0	9	0
Samoa	14	6	40	9	0	30[a]	1
Solomon Islands	23	33	0	0	0	44	0
Tonga	22[b]	...	78[b]	...	...	...	...
Vanuatu	0	0	100	0	0	0	0
South Asia							
Bangladesh	...	...	48	0	0	...	0
Bhutan	15	55	0	2	0	28	0
India	25	24	29	21	0	1	0
Maldives	2	16	50	0	0	8	24
Nepal	10	22	47	14	1	6	0
Sri Lanka	6	40	50	0	0	4	0
Southeast Asia							
Brunei Darussalam	0	100	0	0	0	0	0
Cambodia	7	34	40	5	0	14	0
Indonesia	14	41	43	0	0	2	0
Lao PDR	10	21	41	12	0	5	11
Malaysia	21	72	0	0	0	7	<1
Philippines	25	26	18	15	0	14	2
Singapore	26	36	21	0	0	18	0
Thailand	20	38	35	0	0	7	0
Timor-Leste	36	18	0	0	0	46	0
Viet Nam	9	23	19	8	0	41	0
Average (unweighted) %	18.7	28.7	29.5	3.9	2.8	14.8	2.4

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, VAT = value-added tax.
[a] Samoa: Other taxes include revenues from taxes and excises on international transactions.
[b] Tonga: Shares reported include all income taxes and all taxes on goods and services (excluding taxes in international trade and transactions), respectively.
Source: ISORA 2022.

Table A.7: Personal Income Tax Collected by the Revenue Body, FYs 2018–2021

Region/Economy	PIT Revenue Collections (million, in local currency)				PIT Withheld by Third Parties and Paid to Revenue Body (% of all PIT collected)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	356,585	409,908	411,514	426,280	100	99	99	99
Azerbaijan	996	952	1,151	1,195	99	96	...	...
Georgia	3,247	3,483	3,327	3,776	93	93	92	92
Kazakhstan	838,394[a]	876,324[a]	929,588[a]	1,134,000[a]	...	...	...	...
Kyrgyz Republic	9,937	10,558	10,516	12,533	...	...	90	90
Pakistan	390,218	353,114	645,133	663,940	...	...	72	80
Tajikistan	1,767	1,913	1,876	2,353	...	...	...	...
Uzbekistan	6,422,734	12,668,879	15,140,787	18,917,665	97	98	97	...
East Asia								
China, People's Rep. of	1,387,197	1,038,853	1,173,250	1,414,532	80	85	87	88
Hong Kong, China	75,270	75,520	64,692	91,328	0	0	0	0
Japan	18,881,565	19,900,578	19,170,688	19,189,790	84	84	85	85
Korea, Rep. of	84,572,734	83,700,611	93,333,476	114,438,415	...	...	...	...
Mongolia	855,747	932,772	609,100	1,149,588	...	...	93	16
Taipei,China	599,686	602,040	617,645	640,203	...	...	...	...
Pacific								
Australia	206,993	223,673	221,920	232,961	81[a]	81[a]	83[a]	82[a]
Cook Islands	26	28	28	18	35	31	33	33
Fiji	146	152	172	162	73	76	80	75
Nauru	9	17	20	20	...	91	97	92
New Zealand	37,481	40,340	43,140	48,253	86	86	87	80
Palau	...	...	11	11	...	...	100	95
Papua New Guinea	3,102	3,212	3,594	3,577	7	8	10	15
Samoa	68[a]	69[a]	69[a]	76	...	...	...	...
Solomon Islands	505	509	406	412	86	70	...	90
Tonga	19	19	20	25	...	...	...	39
Vanuatu	0	0	0	0	0	0	0	0
South Asia								
Bangladesh	222,566	293,014	281,601	...	32	32	...	...
Bhutan	...	3,952	4,165	2,453	...	95	95	67
India	4,082,027	4,616,517	4,802,993	4,702,286	48	51	...	...
Maldives	n.a.[b]	n.a.[b]	83	219	n.a.	n.a.	<1	56
Nepal	...	...	56,460	59,482	...	...	...	22
Sri Lanka	...	...	28,491	36,303	...	...	20	3
Southeast Asia								
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	0	0	0	0
Cambodia	838,055	963,951	1,033,100	1,058,080	...	...	...	...
Indonesia	146,679,024	162,699,392	166,357,978	178,082,467	54	66	93	82
Lao PDR	1,619,000	1,646,450	1,450,880	1,383,200	...	...	...	5
Malaysia	33,050	37,902	28,579	27,594	...	...	...	69
Philippines	386,370	465,486	436,663	511,630	89	91	92	91
Singapore	10,732	11,716	12,379	12,753	0	0	0	0
Thailand	319,201	336,508	336,347	334,583	90	90	81	79
Timor-Leste	16	16	17	34	...	...	...	75
Viet Nam	94,364,000	109,401,000	115,213,000	127,655,000	...	...	...	94

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, PIT = personal income tax.
[a] Australia: Owing to errors or gaps in survey data, ratio computed using revenue body's data from annual report on composition of personal income tax.
[b] Maldives: Income tax introduced from FY2020.
Sources: ISORA 2020; ISORA 2021; ISORA 2022; OECD Revenue Statistics in Asia and the Pacific, 2022 edition (Kazakhstan and Samoa); Cambodia's Ministry of Finance and Economy Government Finance Statistics (accessed 9 February 2022).

Table A.8a: Value-Added Tax—Composition of Tax Collections, FYs 2019–2021 (Part 1)

| Region/Economy | Composition of VAT Revenues (million, in local currency) | | | | | |
| | Domestic Goods and Services | | | VAT on Imports | | |
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	120,897	307,827	503,381	353,480	283,821	199,290
Azerbaijan	2,216	...	2,284	3,004	...	2,931
Georgia	1,516	1,470	1,695	3,723	3,367	4,334
Kazakhstan	1,354,938	1,206,708	1,096,717[a]	1,338,188	1,325,816	1,710,973[a]
Kyrgyz Republic	12,092	10,654	15,355	17,957	28,807	48,280
Pakistan	654,494	816,274	1,080,695	825,790	876,330	1,115,958
Tajikistan	2,248	2,150[a]	2,919	3,837	3,879[b]	5,300
Uzbekistan	23,217,533	20,485,644	25,572,169	...	19,738,078	27,284,000
East Asia						
China, People's Rep. of	4,670,557[a]	4,231,406[a]	4,687,558[a]	1,514,464	1,393,316	1,661,588
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	22,446,204[c]	23,337,070[c]	27,051,347[c]	...	...	...
Korea, Rep. of	...	28,564,164[a]	25,376,770[a]	42,549,709	36,318,742	45,827,795
Mongolia	1,088,304	1,008,174	1,229,680	1,633,273	1,196,826[e]	1,902,218
Taipei,China	377,280	397,929	438,591	321,676	305,761	385,626
Pacific						
Australia	125,076	132,994	145,453	4,200	4,200	4,800
Cook Islands	47	45	44	34	35	9
Fiji	543	398	315	471	335	354
Nauru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	33,398	34,743	40,268	10,257	9,768	9,612
Palau	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Papua New Guinea	1,368	1,325	1,611	1,106	982	1,104
Samoa	70[a]	66[a]	57[a]	160	162	154
Solomon Islands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tonga	...	...	...	...	...	...
Vanuatu	...	3,686	8,509	...	4,736	4
South Asia						
Bangladesh	559,712[a]	860,973[a]	1,032,603	314,008	300,166	81,970
Bhutan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a
India	0	0	3,751,141	0	0	2,793,465
Maldives	7,749	4,307	7,830	0	0	0
Nepal	....	98,154	116,519	...	157,820	165,481
Sri Lanka	...	149,658	185,918	...	85,725	122,766
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	1,811,974	6,433,321[c]	2,487,205	5,383,606	...	3,511,023
Indonesia	457,352,570	424,561,895	489,056,856	176,100,269	143,406,900	194,982,200
Lao PDR	...	...	3,216,500	...	...	2,492,660
Malaysia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	406,084	351,748	378,861	...[d]	...[d]	...[d]
Singapore	15,087	15,254	14,027	5,962	6,011	5,760
Thailand	473,551	477,184	476,836	326,117	267,866	316,433
Timor-Leste	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Viet Nam	247,108,000[a]	243,253,000[a]	284,865,760	115,566,000	61,000,000[b]	125,476,240

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, VAT = value-added tax.

[a] This amount is net of refunds, which could not be separately quantified.

[b] Revenue body was unable to report all VAT revenue data; amounts captured or estimated from IMF Government Finance Statistics.

[c] This amount includes VAT on imports, which could not be separately quantified.

[d] Customs does not separately capture VAT on imports and this revenue is included with excise on imports in government reporting.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; IMF Government Finance Statistics; Cambodia's Ministry of Finance and Economy Government Finance Statistics (accessed 9 February 2022).

Table A.8b: Value-Added Tax—Composition of Tax Collections, FYs 2019–2021 (Part 2)

Region/Economy	Composition of VAT Revenues (million, in local currency)					
	VAT Refunds			Net VAT Revenue		
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	163,162	120,060	146,684	311,215	471,588	555,986
Azerbaijan	35	...	133	5,185	4,818[a]	5,082
Georgia	609	1,026	1,839	4,630	3,811	4,190
Kazakhstan	436,085	671,978	...	2,257,042	1,860,545	2,807,691
Kyrgyz Republic	333	411	500	29,716	39,051	63,134
Pakistan	21,083	92,600	208,348	1,459,201	1,600,004	1,988,305
Tajikistan	25	...	25	6,060	6,029	8,194
Uzbekistan	...	9,046,365	14,417,608	23,659,014	31,177,357	38,438,561
East Asia						
China, People's Rep. of	...[b]	...[b]	...	6,185,014	5,624,722	6,349,146
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	6,620,527	6,858,907	7,465,419	15,825,677	16,478,163	19,585,928
Korea, Rep. of	...	...	...	70,828,267	64,882,907	71,204,565
Mongolia	91,782	45,126	12,902	2,629,795	2,205,000	3,118,995
Taipei,China	278,048	266,478	324,859	420,908	437,212	499,358
Pacific						
Australia	64,006	76,898	77,159	65,270	60,296	73,094
Cook Islands	14	11	10	68	69	43
Fiji	209	237	200	805	496	469
Nauru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	14,005	14,112	14,252	29,650	30,399	35,628
Palau	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Papua New Guinea	171	228	98	2,303	2,079	2,617
Samoa	...	...	...	229	228	211
Solomon Islands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tonga	6	7	5	95	95	...
Vanuatu	...	11	...	...	8,411	8,513
South Asia						
Bangladesh	...	...	10,194	873,710	1,161,140	1,104,378
Bhutan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
India	0	0	1,056,833	0	0	5,487,773
Maldives	0	0	<1	7,749	4,307	7,830
Nepal	...	42,400	...	...	213,574	282,000
Sri Lanka	...	1,597	471	443,877	233,786	308,213
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	137,905	145,101	245,998	7,057,673	6,288,220	5,752,230
Indonesia	81,665,424	117,640,731	132,138,575	551,777,415	450,328,063	551,900,481
Lao PDR	...	...	150,000	5,398,000	4,706,000	5,559,160
Malaysia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	...	...	...	406,084	351,748	385,666
Singapore	9,908	10,099	9,441	11,140	11,165	10,346
Thailand	259,394	244,062	216,290	540,273	500,987	576,978
Timor-Leste	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Viet Nam	...	...	160,798,000	362,674,000	304,253,000	249,544,000

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, VAT = value–added tax.

[a] Azerbaijan: Amount shown is net of refunds.

[b] China, People's Rep. of: Refunds could not be separately quantified; gross domestic revenue is net of refunds.

Sources: ISORA 2020; ISORA 2021; ISORA 2022: OECD Revenue Statistics in Asia and the Pacific, 2022 edition.

Table A.9a: Government Revenue Collections (total revenue), FYs 2018–2021

| Region/Economy | Tax Revenues All Levels of Government[a] | | | | | | | |
| | Total Revenue Collected (million, in local currency) | | | | Total Revenue Collected (% of GDP) | | | |
	FY2018	FY2019	FY2020	FY2021	FY 2018	FY 2019	FY 2020	FY 2021
Central and West Asia								
Armenia	1,282,023	1,489,220	1,381,830	1,574,000	21.3	22.8	22.3	22.5
Azerbaijan	12,807	14,734	14,820	16,503	16.0	18.0	19.4	17.8
Georgia	10,459	11,869	10,984	13,039	23.5	24.1	22.3	22.5
Kazakhstan	10,484,416	11,594,940	9,934,305	13,094,122	17.0	16.7	14.1	15.6
Kyrgyz Republic	145,852	152,253	137,888	186,314	25.6	24.6	22.9	25.8
Pakistan	4,469,282	4,477,136	4,751,049	5,742,821	11.4	10.2	10.0	10.3
Tajikistan	16,178	17,862	17,209	20,253	...	19.9	18.3	19.5
Uzbekistan	99,243,900	122,597,290	133,986,000	165,677,000	23.4	23.2	22.2	22.4
East Asia								
China, People's Rep. of	22,728,000	21,791,000	20,349,000	24,180,000	17.0	22.1	20.1	21.0
Hong Kong, China	391,500	377,000	375,900	...	13.8	13.2	14.0	14.4
Japan	171,805,000	175,563,500	175,379,700	177,308,000	30.9	31.5	31.5	33.2
Korea, Rep. of	506,548,000	523,985,000	538,450,000	619,084,000	26.7	27.2	28.0	29.9
Mongolia	7,788,300	9,033,300	7,951,000	10,772,000	23.9	23.9	21.0	24.0
Taipei,China[b]	3,544,980	3,654,390	3,592,323	4,160,977	19.3	19.3	18.0	19.1
Pacific								
Australia	526,000	557,200	549,536	590,700	28.5	28.6	27.7	28.5
Cook Islands	142	163	141	90	27.1	28.4	26.1	25.8
Fiji	2,739	2,637	1,607	1,346	23.5	22.3	16.6	15.1
Nauru	42	57	80	81	24.9	32.4	43.0	41.5
New Zealand	92,635	99,834	99,792	115,600	31.3	32.2	31.3	33.8
Palau	61	56	49	...	...	...	...	...
Papua New Guinea	10,107	10,766	11,311	10,271	12.6	12.5	11.6	12.1
Samoa	523	572	563	543	23.2	23.9	24.0	25.0
Solomon Islands	3,013	2,623	2,382	2,361	24.1	20.4	18.8	18.6
Tonga	235	243	239	269	...	20.9	21.3	22.9
Vanuatu	17,976	18,254	14,732	11,543	17.8	17.0	14.2	10.9
South Asia								
Bangladesh	2,339,088	2,497,270	2,467,352	3,093,116	8.9	8.5	7.8	8.8
Bhutan	22,404	21,746	18,398	15,744	14.2	13.0	10.5	8.7
India	22,712,540	...	...	...	...	17.4	17.0	16.2
Maldives	15,818	16,512	10,989	14,331	19.4	19.1	19.1	17.7
Nepal	759,000	737,000	700,000	870,000	...	20.3	19.2	21.7
Sri Lanka	1,737,000	1,764,000	1,250,000	1,333,000	11.3	11.1	7.9	7.5
Southeast Asia								
Brunei Darussalam	1,559	3,352	2,209	883	9.1	18.2	12.0	5.4
Cambodia	18,561,000	23,822,000	20,882,000	19,875,000	18.6	21.7	19.7	18.0
Indonesia	1,776,622,000	1,834,711,000	1,555,331,000	1,844,652,000	12.0	11.6	10.1	10.9
Lao PDR	16,564,700	17,185,000	15,377,000	17,540,000	10.9	10.5	9.2	9.7
Malaysia	181,064	188,328	162,346	181,959	12.5	12.4	11.4	11.4
Philippines	3,176,982	3,525,101	3,203,823	3,505,520	17.4	18.1	17.8	18.1
Singapore	66,363	66,703	67,645	61,409	13.8	12.9	13.2	12.6
Thailand	2,856,898	2,897,782	2,614,153	2,624,302	17.7	17.2	16.5	16.4
Timor-Leste	393	464	273	547	24.8	27.2	17.1	32.5
Viet Nam	1,285,632,000	1,458,674,000	1,421,593,000	1,545,120,000	18.3	18.9	17.7	18.2
Average (unweighted) %					19.2	19.8	18.6	19.2

... = no data at cut-off date, FY = fiscal year, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

[a] The fiscal year in ISORA reporting relates to the fiscal period ending in each calendar year (i.e., all fiscal periods ending in 2021 are described as FY2021 in ISORA).

Sources: ISORA 2020; ISORA 2021; ISORA 2022; IMF Government Finance Statistics Database and Article IV reports; OECD Global Revenue Statistics Database; Taipei,China Government Finance Statistics Database.

Table A.9b: Government Tax Revenue Collections (by tax type and % of GDP), FY2021

Region/Economy	Tax Collections by Tax Type, FY2021[a] (% of GDP)						Total: All Taxes, FY2021[a] (% of GDP)
	Income and Profits	Social Security	Property	General Consumption	Specific Goods and Services	All Other Taxes	
Central and West Asia							
Armenia	8.4	0.6	0	8.4	3.7	1.6	22.7
Azerbaijan	4.5	4.1	0.3	6.0	1.2	1.7	17.8
Georgia	8.0	0	0.9	10.3	3.3	0.1	22.6
Kazakhstan	5.9	0.9	1.0	3.3	3.8	0.7	15.6
Kyrgyz Republic	4.3	5.3	0.3	10.4	4.6	0.9	25.8
Pakistan	3.1	0	0.1	4.1	2.7	0.3	10.3
Tajikistan	4.6	2.0	0.5	11.4	[b]	1.0	19.5
Uzbekistan	8.0	3.6	0.9	5.6	1.4	2.9	22.4
East Asia							
China, People's Rep. of	5.5	6.0	1.5	5.8	2.0	0.2	21.0
Hong Kong, China	8.1	…	…	…	…	…	14.4
Japan	10.1	13.4	2.7	4.9	1.5	0.6	33.2
Korea, Rep. of	9.9	7.8	4.5	4.3	2.2	1.2	29.9
Mongolia	7.4	4.9	0.6	6.3	4.1	0.7	24.0
Taipei,China	6.2	5.9	2.4	4.6	[b]	0	19.1
Pacific							
Australia	16.8	0	2.9	3.6	2.9	2.3	28.5
Cook Islands	10.3	0	0	10.5	4.7	0.3	25.8
Fiji	5.0	0	0	5.4	4.7	0	15.1
Nauru	32.5	0	0	0	8.4	0.6	41.5
New Zealand	19.1	0	1.9	10.4	1.7	0.7	33.8
Palau	…	…	…	…	…	…	…
Papua New Guinea	6.6	0	0.1	3.0	2.4	0	12.0
Samoa	5.9	0	0	10.0	9.0	0.1	25.0
Solomon Islands	5.6	0	0	6.0	6.8	0.2	18.6
Tonga	4.5	0	0	16.2	[b]	2.2	22.9
Vanuatu	0	0	0.3	5.0	4.4	0	10.9
South Asia							
Bangladesh	3.8	0	0	2.9	2.0	0.1	8.8
Bhutan	5.4	0	0.1	2.3	0.8	0.1	8.7
India	4.8	…	…	2.8	2.0	6.6	16.2
Maldives	3.3	0	0	6.3	5.0	0.1	17.7
Nepal	5.2	0	0.9	6.8	3.0	5.8	21.7
Sri Lanka	1.6	0.2	0	1.8	1.7	2.2	7.5
Southeast Asia							
Brunei Darussalam	3.4	0	…	…	…	2.0	5.4
Cambodia	5.6	0	0.8	5.2	5.9	0.5	18.0
Indonesia	4.2	0.6	0.1	3.3	1.6	1.1	10.9
Lao PDR	2.3	0	0.1	3.2	3.4	0.7	9.7
Malaysia	8.0	0.3	0	0.9	1.9	0.7	11.8
Philippines	6.0	2.9	0.5	4.0	3.8	0.9	18.1
Singapore	6.3	0	1.4	2.1	1.0	1.4	12.6
Thailand	5.8	0.7	0.2	3.9	4.9	0.9	16.4
Timor-Leste	27.3	0	0	1.3	2.3	1.6	32.5
Viet Nam	5.3	5.1	0	4.4	3.0	0.4	18.2
Average (unweighted) %	7.5	1.7	0.7	5.4	3.4	1.1	19.2

… = no data at cut-off date, FY = fiscal year, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

[a] For ISORA and comparative purposes in this series, FY2021 is the fiscal period ending in calendar year 2021.

[b] Tajikistan; Taipei,China; and Tonga: Amount of taxes for specific goods and services included with general taxes on consumption.

Sources: OECD Global Revenue Statistics Database; IMF Government Finance Statistics Database; Taipei,China Government Finance Statistics Database.

Table A.10: Staff Resource Usage on Tax Administration, FYs 2018–2021

Region/Economy	Actual (or Estimated) Staff for Tax Administration (FTEs)				HQ Staffing (% of all FTEs)	Staffing Ratios, FY2021	
	FY2018	FY2019	FY2020	FY2021		Labor Force/ FTE	Citizens/FTE
Central and West Asia							
Armenia	1,577	1,482	1,394	1,508	...[b]	796	1,989
Azerbaijan	3,496	3,496	2,633	2,747	...	1,929	3,677
Georgia	1,920	2,030	1,733	1,619	10	926	2,285
Kazakhstan	12,137[b]	12,189[b]	12,047[b,c]	12,367[b]	67	773	1,579
Kyrgyz Republic	2,198[c]	2,186[c]	2,437	2,570	10	1,128	2,568
Pakistan	20,854	20,184	20,983	20,297	19	3,242	11,076
Tajikistan	1,748	1,747	1,833	1,843	12	1,356	5,317
Uzbekistan	10,929[c]	10,810[c]	10,107	10,110	4	1,345	3,452
East Asia							
China, People's Rep. of	740,196	720,258	708,903	698,371	...	1,133	2,023
Hong Kong, China	2,852	2,889	2,925	2,939	11	1,293	2,518
Japan	55,667	55,724	55,903	55,953	2	1,226	2,247
Korea, Rep. of	20,368	20,874	21,061	21,748	5	1,306	2,377
Mongolia	1,899	1,819	1,840	1,810	8	718	1,878
Taipei,China	8,850	8,776	8,748	8,731	31	1,363	2,692
Pacific							
Australia	18,236	17,412	16,873	18,082	10	763	1,421
Cook Islands	24	24	31	34	7	235	529
Fiji	422	452	486	290	39	1,276	3,069
Nauru	14	16	17	17	[a]	235	706
New Zealand	5,135	4,888	4,724	4,106	40	706	1,242
Palau	...	...	21	19	11	579	895
Papua New Guinea	570	621	545	554	80	5,054	17,870
Samoa	93	96	110	100	13	600	2,000
Solomon Islands	108	130	125	112	9	3,304	6,339
Tonga	111	124	101	94	26	319	1,043
Vanuatu	36	...	41	47	7	2,766	6,383
South Asia							
Bangladesh	6,429	6,325	10,144	...	...	...	...
Bhutan	...	...	...	223	18	1,538	3,620
India	42,229	42,153	...	92,745[d]	...	5,140	14,772
Maldives	279	279	297	305	23	754	1,967
Nepal	...	...	1,287	1,451	9	11,647	20,124
Sri Lanka	2,639	2,610	2,589	2,516	19	3,418	8,824
Southeast Asia							
Brunei Darussalam	...	...	49	49	...	4,490	8,163
Cambodia	1,958	2,513	2,514	2,508	48	3,708	6,619
Indonesia	45,341	46,517	46,220	45,484	7	2,983	5,996
Lao PDR	...	2,480	2,351	2,270	6	1,718	3,128
Malaysia	12,889	13,211	13,009	13,249	15	1,193	2,468
Philippines	11,385	12,030[b]	13,135	13,726[b]	16	3,096	8,029
Singapore	1,911	1,898[c]	1,935	1,947	26	1,849	2,825
Thailand	22,093	21,726	21,930	22,938	11	1,665	3,039
Timor-Leste	110	112	115	110	79[e]	5,182	11,818
Viet Nam	37,197	36,325	38,533	36,283	2	1,508	2,715

... = no data at cut-off date, FTE = full-time equivalent, FY = fiscal year, HQ = headquarters, Lao PDR = Lao People's Democratic Republic.
[a] Armenia and Nauru: These economies used a literal interpretation of the term "headquarters functions" and reported 100%.
[b] Kazakhstan: FTEs include staff for customs administration.
[c] FTEs for FYs 2020 and 2021 calculated as average number of staff employed at beginning and end of FY. Sources: ADB. 2022e. *Key Indicators for Asia and the Pacific 2022*. Manila; ISORA 2020; ISORA 2021; ISORA 2022.
[d] India: FTEs include indirect taxes and customs administration from FY2021.
[e] Timor-Leste: Enforcement and verification programs conducted at HQ level.

Table A.11: Deployment of Staff for Tax Administration by Functional Groupings, FY2021

Region/Economy	Staff Deployment by Major Functional Groupings, FY2021 (no. of FTEs)							
	Registration, Services, Returns Processing		Audit, Investigation, Other Verification		Enforced Debt Collection		All Other Tax Functions	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Central and West Asia								
Armenia	239	17	708	49	139	10	348	24
Azerbaijan	478	18	420	15	183	7	1,666	60
Georgia	324	20	927	57	159	10	209	13
Kazakhstan[a]	...	....	...	...	...	...	...	...
Kyrgyz Republic	1,179	48	250	10	200	8	808	33
Pakistan[a]	...	...	...	...	...	...	...	...
Tajikistan	1,030	56	129	7	119	6	496	31
Uzbekistan	3,691	37	2,238	22	641	6	3,540	35
East Asia								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	1,874	64	239	8	220	7	606	21
Japan	35,909	64	...	...	10,959	20	9,085	16
Korea, Rep. of	12,583	58	4,470	21	1,998	9	2,697	12
Mongolia	261	14	241	13	934	52	374	21
Taipei,China	806	9	4,126	47	368	4	3,431	40
Pacific								
Australia	2,177	12	5,362	30	1,076	6	9,467	52
Cook Islands	6	18	18	52	7	21	3	9
Fiji	30	11	100	35	47	16	113	38
Nauru	8	47	3	18	0	0	6	35
New Zealand	1,638	40	520	13	293	7	1,655	40
Palau	10	52	4	21	3	16	2	11
Papua New Guinea	231	42	148	27	117	21	58	10
Samoa	29	29	20	20	21	21	30	30
Solomon Islands	55	49	32	29	25	22	0	0
Tonga	10	11	8	9	13	14	63	67
Vanuatu	2	4	3	6	3	6	39	83
South Asia								
Bangladesh	...	...	...	...	...	...	...	...
Bhutan	...	...	...	...	...	...	...	...
India	...	...	...	...	...	...	...	...
Maldives	99	32	89	29	39	13	78	26
Nepal	...	...	...	...	...	...	...	...
Sri Lanka	407	16	1,473	58	90	4	546	22
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	...	...
Cambodia	894	36	746	30	179	7	689	27
Indonesia	10,915	24	18,690	41	810	2	15,069	33
Lao PDR	...	...	...	...	...	...	...	...
Malaysia	1,304	10	2,929	22	1,847	14	7,169	54
Philippines	547	4	8,525	62	368	3	4,286	31
Singapore	768	39	415	21	189	10	575	30
Thailand	5,278	23	4,560	20	1,308	6	11,792	51
Timor-Leste	22	20	12	11	6	5	70	64
Viet Nam	13,526	37	12,802	35	1,726	5	8,229	23
Average %		**28.5**		**24.8**		**10.6**		**36.0**

... = no data at cut-off date, FTE = full-time equivalent, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.
[a] Kazakhstan and Pakistan: Data reported in ISORA 2022 incomplete and accordingly unsuitable for comparability purposes.
Source: ISORA 2022.

Table A.12: Total Operating Expenditure for Tax Administration, FYs 2018–2021

Region/Economy	Actual (or estimated) Total Operating Expenditure (million, in local currency)				% Change, Total Operating Expenditure		
	FY2018	FY2019	FY2020	FY2021	FY2018/21	FY2019/20	FY2020/21
Central and West Asia							
Armenia	14,920	15,981	16,252	14,780	–0.9	1.7	–9.1
Azerbaijan	86	105	135	150	74.4	28.6	11.1
Georgia	38	41	45	49	28.9	9.8	8.9
Kazakhstan	42,102	35,265	...	368,437[a]	...	...	...
Kyrgyz Republic	1,311	1,612	1,481	1,754	33.8	–8.1	17.8
Pakistan	24,716	26,318	26,548	33,957	37.4	0.9	27.9
Tajikistan	106	113	126	157	48.1	11.5	24.6
Uzbekistan	636,287	1,010,192	1,098,664	1,470,802	131.2	8.8	33.9
East Asia							
China, People's Rep. of	...	110,564	98,598	202,359[b]	...	–10.8	105.2
Hong Kong, China	1,539	1,605	1,702	1,756	14.1	6.0	3.2
Japan	700,416	702,467	705,915	719,379	2.7	0.5	1.9
Korea, Rep. of	1,613,431	1,669,286	1,689,920	1,733,816	7.5	1.2	2.6
Mongolia	31,068	36,882	40,288	42,931	38.2	9.2	6.6
Taipei,China	24,137	25,278	25,316	26,515	9.9	0.2	4.7
Pacific							
Australia	3,581	3,630	3,802	4,021	12.3	4.7	5.8
Cook Islands	956[c]	948[c]	1,114[c]	1,124[c]	17.6	17.5	0.9
Fiji	28	28	31	26	–7.1	10.7	–16.1
Nauru	291[c]	391[c]	421[c]	397[c]	36.4	7.7	–5.7
New Zealand	605	625	657	597[d]	–1.3	5.1	–9.1
Palau	...	...	604[c]	700[c]	...	...	15.9
Papua New Guinea	114	77	74	92	–19.3	–3.9	24.3
Samoa	5,086[c]	5,291[c]	5,000[c]	4,851[c]	–4.6	....	...
Solomon Islands	8,061[c]	...	4,097[c]	6,107[c]	–24.2	...	49.1
Tonga	1,651[c]	1,803[c]	4,253[c]	4,801[c]	190.8	135.9	12.9
Vanuatu	144	...	110	277	92.4	...	151.8
South Asia							
Bangladesh	7,677	7,207	6,696			–7.1	
Bhutan	...	...	...	114[d]	...	...	...
India	60,876	70,759	69,554	148,197[e]	143.4	–1.7	113.1
Maldives	86	82	83	89	3.5	1.2	7.2
Nepal	...	...	1,802	1,348	...	...	–25.2
Sri Lanka	4,134	4,535	4,445	4,562	10.4	–2.0	2.6
Southeast Asia							
Brunei Darussalam	...	...	...	...	...	...	...
Cambodia	43,424	45,016	88,821	79,599	83.3	97.3	–10.4
Indonesia	6,192,875	6,504,840	5,813,492	6,350,412	2.5	–10.6	9.2
Lao PDR	...	...	...	45,000	...	...	...
Malaysia	2,261	2,361	2,324	2,279	0.8	–1.6	–1.9
Philippines	7,894	9,020	9,585	11,356	43.9	6.3	18.5
Singapore	424	422	423	419	–1.2	0.2	–0.9
Thailand	9,281	9,635	9,767	9,223	–0.6	1.4	–5.6
Timor-Leste	...	...	...	2,677[c]	...	...	...
Viet Nam	10,079,618	10,226,376	11,516,793	11,800,924	17.1	12.6	2.5

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Kazakhstan: Aggregate for FY2021 includes both tax and customs administration and not comparable with prior fiscal years.

[b] People's Republic of China: Revenue body reported that methodology for calculating operating expenditure changed from FY2021 to include funds of both central and local authorities.

[c] These numbers are expressed in 000s of local currency.

[d] Bhutan: Estimated at 40%, with the revenue body also responsible for customs administration.

[e] India: Aggregates only include indirect taxes administration from FY2021.

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.13: Salary Expenditure for Tax Administration, FYs 2018–2021

Region/Economy	Actual (or estimated) Salary Expenditure (million, in local currency)				Actual (or estimated) Salary Expenditure (as a % of total operating expenditure)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	8,981	8,062	8,650	8,689	60	50	53	59
Azerbaijan	74	89	115	131	86	85	85	87
Georgia	31	34	39	41	82	83	87	84
Kazakhstan	33,842	31,786	...	170,627[a]	80	90	...	46
Kyrgyz Republic	1,171	1,472	1,377	1,145	89	91	93	65
Pakistan	17,329	17,754	17,926	18,305	70	68	68	54
Tajikistan	33	30	24	30	31	27	19	19
Uzbekistan	596,915	950,419	998,081	1,271,793	94	94	91	86
East Asia								
China, People's Rep. of	...	65,293	62,036	156,029	...	59	63	77
Hong Kong, China	1,340	1,393	1,469	1,487	87	87	86	85
Japan	559,804	550,548	556,789	562,138	80	78	79	78
Korea, Rep. of	1,171,131	1,213,281	1,245,779	1,284,895	73	75	74	74
Mongolia	23,061	26,748	26,023	28,697	74	73	65	67
Taipei,China	9,302	9,554	9,531	9,668	39	38	38	36
Pacific								
Australia	1,978	1,953	1,964	2,042	55	54	52	51
Cook Islands	799[b]	807[b]	958[b]	1,027[b]	84	85	86	91
Fiji	17	18	18	14	61	64	58	54
Nauru	202[b]	217[b]	227[b]	263[b]	69	55	54	66
New Zealand	421	419	410	411	70	67	62	69
Palau	...	...	522[b]	597[b]	...	...	86	85
Papua New Guinea	24	48	56	59	21	62	76	64
Samoa	2,166[b]	3,237[b]	3,761[b]	3,562[b]	43	61	75	73
Solomon Islands	...	...	1,473[b]	2,727[b]	...	...	25	45
Tonga	1,103[b]	1,217[b]	2,988[b]	2,390[b]	67	67	70	50
Vanuatu	101	...	92	182	70	...	84	66
South Asia								
Bangladesh	6,142	4,684	...		80	65	...	
Bhutan	...	...	...	105[c]	...	...	...	92
India	36,392	39,464	42,703	98,826[d]	60	56	61	67
Maldives	61	68	73	73	71	83	88	82
Nepal	...	...	536	522	...	...	30	39
Sri Lanka	2,433	2,713	3,421	3,334	59	60	77	73
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	...	...
Cambodia	31,439	31,147	51,170	45,519	72	69	58	57
Indonesia	2,400,520	2,683,779	2,785,953	2,810,811	39	41	48	44
Lao PDR	...	17,361	52,102	30,000	...	...	...	67
Malaysia	1,614	1,644	1,653	1,841	71	70	71	81
Philippines	5,351	6,261	6,603	8,115	68	69	69	71
Singapore	257	259	256	261	61	61	61	62
Thailand	6,892	7,210	7,387	7,374	74	75	76	80
Timor-Leste	288[b]	307[b]	...	599[b]	...	...	...	22
Viet Nam	2,236,152	2,346,196	8,305,311	2,534,043	22	23	72	21
Average (unweighted) %					**63**	**64**	**67**	**63**

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Kazakhstan: Aggregate for FY2021 includes both tax and customs administration and not comparable with prior fiscal years.

[b] These numbers are expressed in 000s of local currency.

[c] Bhutan: Estimated at 40%, as the revenue body is also responsible for customs administration.

[d] India: Aggregate includes indirect taxes administration from FY2021.

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.14: ICT Operating Expenditure, FYs 2018–2021

Region/Economy	Actual (or estimated) ICT Operating Expenditure[a] (million, in local currency)				Actual (or estimated) ICT Operating Expenditure (% of total operating expenditure)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	695[b]	487[b]	13	15	3b	2b		<1	<1
Azerbaijan	5	12	35	31	6	12	26	21
Georgia	1	1	2	1	3	3	4	2
Kazakhstan	328	106	...	38,649[b]	<1	<1	..	10
Kyrgyz Republic	2	2	28	45	<1	<1	2	3
Pakistan	153	176	...	...	<1	<1	...	...
Tajikistan	...	...	1	1	...	...	1	1
Uzbekistan	2,702	4,834	21,125	25,350	<1	<1	2	2
East Asia								
China, People's Rep. of	...	1,760	1,607	1,369	...	2	2	1
Hong Kong, China	167	171	118	112	11	11	7	6
Japan	48,820	49,561	51,858	57,600	7	7	7	8
Korea, Rep. of	93,617	104,082	109,118	130,899	6	6	6	8
Mongolia	1,620	1,415	903	1,516	5	4	2	4
Taipei,China	849	745	735	1,233	4	3	3	5
Pacific		–						
Australia	466	444	529	586	13	12	14	15
Cook Islands	51[c]	31[c]	18[c]	66[c]	5	3	2	6
Fiji	1	6	3	4	4	21	10	15
Nauru	0	0	0	...	...	...	0	...
New Zealand	92	116	105	93	15	19	16	16
Palau	...	...	9c	0	...	...	3	0
Papua New Guinea	5	4	2	2	4	5	3	2
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	0	0	1,473[c]	1,124[c]	...	...	25	18
Tonga	17[c]	6[c]	186[c]	95[c]	...	...	5	2
Vanuatu	28	...	32	...	19	...	29	...
South Asia								
Bangladesh	35	57	...		<1	<1	0	
Bhutan	...	...	...	...	...	...	...	...
India	6,661	8,681	5,542	12,285[b]	11	12	8	8
Maldives	10	4	1	10	12	5	1	11
Nepal	...	...	181	206	...	...	10	15
Sri Lanka	...	...	259	1,180	...	...	6	26
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	...	...
Cambodia	3,936	16,718	2,726	3,544	9	37	3	4
Indonesia	103,062	29,001	123,651	79,948	2	<1	2	1
Lao PDR	3,200	3,200	...	5,000	...	...	...	11
Malaysia	158	154	181	187	7	7	8	8
Philippines	175	238	655	741[b]	2	3	7	7
Singapore	113	111	113	106	27	26	27	25
Thailand	495	495	495	495	5	5	5	5
Timor-Leste	36	380[c]	...	...	...	....	...	...
Viet Nam	475,611	642,103	689,344	974,262	5	6	6	8
Average (unweighted)					**6**	**7**	**8**	**8**

... = no data at cut-off date, FY = fiscal year, ICT= information and communication technology, Lao PDR = Lao People's Democratic Republic.

[a] Capital expenditure outlays include ICT-related elements.
[a] Armenia and Kazakhstan: Aggregates are for tax and customs administration combined.
[b] These numbers are expressed in 000s of local currency.

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.15: Capital Expenditure for Tax Administration, FYs 2018–2021

Region/ Economy	Actual (or estimated) Capital Expenditure[a] (million, in local currency)				Actual (or estimated) Capital Expenditure (% share of all expenditures [i.e., operating + capital])			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	616[b]	4,813[b]	118	119	4	23	1	1
Azerbaijan	64	106	150	58	43	50	53	28
Georgia	1	2	3	2	3	5	6	4
Kazakhstan	...	...	...	203[b]	...	...	...	<1
Kyrgyz Republic	1	1	36	21	0	0	2	1
Pakistan	311	232	530	...	1	1	2	...
Tajikistan	38	45	65	80	26	28	34	34
Uzbekistan	26,966	41,159	80,120	55,368	4	4	7	4
East Asia								
China, People's Rep. of	...	3,686	2,608	2,092	...	3	3	1
Hong Kong, China	77	61	63	34	5	4	4	2
Japan	...	...	...	...	...	...	...	...
Korea, Rep. of	25,401	42,871	49,753	66,847	2	3	3	4
Mongolia	2,488	2,722	4,722	12,422	7	7	10	22
Taipei,China	393	448	571	1,053	2	2	2	4
Pacific								
Australia	202	145	183	303	5	4	5	7
Cook Islands	13[c]	15[c]	...	...	1	2	...	...
Fiji	5	12	7	5	15	30	18	16
Nauru	0	0	23[c]	11[c]	0	0	5	3
New Zealand	104	108	104	65	15	15	14	10
Palau	...	...	...	0				0
Papua New Guinea	24	27	24	5	17	26	24	5
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	...	...	800[c]	1,498[c]	...	...	16	20
Tonga	6c	5c	300[c]	53[c]		0	7	1
Vanuatu	11	...	22	...	7	...	17	...
South Asia								
Bangladesh	156	66	...	...	2	1	...	...
Bhutan	...	...	...	32	...	...	...	22
India	1,817	2,440	2,273	8,524[b]	3	3	3	5
Maldives	10	5	1	11	10	6	1	11
Nepal	...	...	211	631	...	...	10	32
Sri Lanka	693	722	890	1,793	14	14	17	28
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...
Indonesia	541,495	433,184	555,677	687,906	8	6	9	10
Lao PDR	...	...	...	10,000	...	...	...	18
Malaysia	116	60	89	127	5	2	4	5
Philippines	1,931	587	310	271	20	6	3	2
Singapore	17	16	37	50	4	4	8	11
Thailand	333	53	295	598	3	1	3	6
Timor-Leste	...	...	...	...	...	...	...	...
Viet Nam	1,662,904	697,252	522,430	578,829	14	6	4	5

... = no data at cut-off date, FY = fiscal year, ICT = information and communication technology, Lao PDR = Lao People's Democratic Republic.

[a] Capital expenditure outlays include ICT-related elements.
[b] Armenia, India, and Kazakhstan: Aggregates are for both tax and customs administration.
[c] These numbers are expressed in 000s of local currency.
Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.16: Operating Expenditure as a Proportion of Net Tax Collections, FYs 2018–2021 (%)

Region/Economy	Total Operating Expenditure (as a proportion of net tax collections, %)ᵃ				Structural Factors Affecting Comparability of Ratios over Fiscal Years Reported
	FY2018	**FY2019**	**FY2020**	**FY2021**	
Central and West Asia					
Armenia	1.28	1.23	1.17	1.02	
Azerbaijan	0.74	0.79	0.99	0.99	Assumed responsibility for SSC collection in 2019
Georgia	0.38	0.38	0.45	0.42	Increased costs attributed to customs from 2018
Kazakhstan	...	...	...	...	
Kyrgyz Republic	1.75	1.46	1.05	0.89	Assumed responsibility for SSC collection in 2019
Pakistan	0.76	0.83	0.79	0.76	
Tajikistan	0.78	0.80	0.91	0.80	
Uzbekistan	1.00	1.04	0.85	0.92	
East Asia					
China, People's Rep. of	...	0.57	0.52	0.84	State and local tax body integration in 2018–2019
Hong Kong, China	0.47	0.47	0.56	0.53	Excises administered by customs
Japan	1.27	1.24	1.29	1.22	SSC collected by another body
Korea, Rep. of	0.57	0.59	0.61	0.52	SSC collected by another body
Mongolia	0.51	0.51	0.79	0.47	SSC collected by another body
Taipei,China	1.10	1.12	1.15	1.00	SSC collected by another body
Pacific					
Australia	0.90	0.85	0.94	0.89	
Cook Islands	0.80	0.79	0.97	1.46	
Fiji	1.18	1.22	2.43	1.91	
Nauru	1.04	0.95	0.65	0.61	
New Zealand	0.74	0.71	0.75	0.58	Excises administered by customs
Palau	...	...	1.44	2.92	
Papua New Guinea	1.77	1.07	0.92	1.00	High expenditure in 2018; excises with customs
Samoa	1.57	1.47	0.98	0.92	
Solomon Islands	0.48	...	0.31	0.35	Excises administered by custom.
Tonga	0.82	0.88	2.05	2.17	
Vanuatu	1.75	...	1.17	3.25	
South Asia					
Bangladesh	0.38	0.33	0.31	...	
Bhutan	...	...	...	0.68	
India	0.61	0.62	0.66	0.79	Includes indirect taxes from FY2021; no SSC revenue
Maldives	0.68	0.63	0.96	0.75	Income tax regime from FY2021
Nepal	...	...	0.36	0.23	
Sri Lanka	0.46	0.44	0.87	0.74	
Southeast Asia					
Brunei Darussalam	...	...	...	...	
Cambodia	0.36	0.29	0.63	0.55	Excises and SSC collected by other bodies
Indonesia	0.47	0.48	0.54	0.50	Excises and SSC collected by other bodies
Lao PDR	...	...	...	0.37	
Malaysia	1.74	1.74	2.10	1.75	Direct taxes only; SSC collected by another body
Philippines	0.40	0.41	0.49	0.55	SSC collected by another body
Singapore	0.84	0.80	0.79	0.84	Excises administered by customs
Thailand	0.55	0.55	0.64	0.56	Excises and SSC administered by other bodies
Timor-Leste	...	...	...	5.05	
Viet Nam	1.06	0.97	0.89	0.88	SSC collected by another agency

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, SSC = social security contribution.

ᵃ Unless otherwise indicated, the amount of "net tax collections" used to compute the ratio includes (i) SSC and excise revenues where these are collected by the revenue body, and (ii) value-added tax revenue collected on imported goods and services. Computed ratios for some economies for years prior to 2020 may vary from previously published ratios, owing to revisions of the underlying revenue and costs data.

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.17: Overall Staffing Levels, FYs 2018–2021

Region/Economy	Staff Employed for All Roles (no.)					Change in Staff Levels (%)	
	At Start of FY2018	At Start of FY2019	At Start of FY2020	At Start of FY2021	At End of FY2021	Start FY2018 to End FY2021	Start FY2021 to End FY2021
Central and West Asia							
Armenia[a]	3,304	3,179	2,952	2,964	2,938	−11.1	−0.9
Azerbaijan	3,374	3,032	2,655	2,718	2,776	−17.7	2.1
Georgia[a]	3,318	3,513	3,717	3,745	3,591	8.2	−4.1
Kazakhstan[a]	12,157	11,222	11,703	12,391	13,055	7.4	5.4
Kyrgyz Republic	2,209	2,101	2,186	2,437	2,570	16.3	5.5
Pakistan	21,362	20,854	20,983	20,297	20,199	−5.4	−0.5
Tajikistan	1,744	1,743	1,741	1,748	1,774	1.7	1.5
Uzbekistan	11,174	10,685	10,936	10,081	9,843	−11.9	−2.4
East Asia							
China, People's Rep. of	397,491	740,196[b]	720,258	708,903	698,371	75.7[b]	−1.5
Hong Kong, China	2,772	2,813	2,811	2,843	2,815	1.6	−1.0
Japan	55,253	55,695	53,000	53,000	53,000	−4.1	0.0
Korea, Rep. of	20,175	20,602	20,804	20,911	21,527	6.7	2.9
Mongolia	1,911	1,899	1,819	1,840	1,810	−5.3	−1.6
Taipei,China	8,437	8,342	8,566	8,571	8,442	0.1	−1.5
Pacific							
Australia	20,682	20,350	19,158	21,184	21,281	2.9	0.5
Cook Islands	24	28	24	28	32	33.3	14.3
Fiji[a]	837	859	900	861	688	−17.8	−20.1
Nauru	14	14	16	17	17	21.4	0.0
New Zealand	5,401	5,135	4,888	4,724	4,106	−24.0	−13.1
Palau	...	...	21	21	22	...	4.8
Papua New Guinea	500	621	700	698	697	39.4	−0.1
Samoa	171	212	208	215	219	28.1	1.9
Solomon Islands	105	108	118	118	121	15.2	2.5
Tonga	91	104	99	104	106	16.5	1.9
Vanuatu[a]	106	...	105	151	177	67.0[a]	58.0[a]
South Asia							
Bangladesh	8,532	8,769	11,713	12,395	...	...	...
Bhutan	...	...	...	215	223	...	3.7
India	...	...	...	94,591	92,745	...	−2.0
Maldives	290	279	297	297	305	5.2	2.7
Nepal	...	...	1,301	1,289	1,451	...	12.6
Sri Lanka	2,681	...	2,626	2,551	2,481	−7.5	−2.7
Southeast Asia							
Brunei Darussalam	...	...	49	49	49	...	0.0
Cambodia	1,911	1,958	2,513	2,514	2,501	30.9	−0.5
Indonesia	43,052	45,341	46,517	46,220	45,382	5.4	−1.8
Lao PDR	2,544	2,492	2,380	2,323	2,270	−10.8	−2.3
Malaysia	12,985	13,269	12,920	13,265	13,249	2.0	−0.1
Philippines	10,573	11,583	12,398	13,178	13,917	31.6	5.6
Singapore	1,903	1,911	1,898	1,929	1,947	2.3	0.9
Thailand	21,503	22,093	21,729	21,117	20,677	−3.8	−2.1
Timor-Leste	110	110	114	110	110	0.0	0.0
Viet Nam	37,224	37,171	39,174	34,203	36,283	−2.5	6.1

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Staff aggregates include staff on customs administration for FY2021.

[b] The significant increase in numbers of staff in both 2018 and 2019 reflects the integration of state and local tax authorities.

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.18: Staffing Departures and Recruitment, FYs 2019–2021

Region/Economy	Staff Departures (no.)				Staff Recruits (no.)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	771	900	462	380	646	673	474	354
Azerbaijan	521	401	122	192	643	865	100	250
Georgia	138	114	105	198	316	320	133	44
Kazakhstan	1,038	3,130	1,655	1,489	1,545	3,275	2,343	2,153
Kyrgyz Republic	97	78	48	...	83	70	229	...
Pakistan	1,186	1,231	853	287	678	561	167	189
Tajikistan	...	...	123	151	...	...	169	177
Uzbekistan	1,606	818	1,297	591	1,117	1,069	468	353
East Asia								
China, People's Rep. of	49,186	38,736	29,472	25,964	391,891[a]	18,798	18,117	15,432
Hong Kong, China	186	209	201	216	227	207	233	188
Japan	...	...	3,000	4,000	2,106	2,234	3,000	4,000
Korea, Rep. of	...	...	...	...	...	...	107	...
Mongolia	106	107	62	116	94	27	83	86
Taipei,China	517	508	471	480	422	499	478	351
Pacific								
Australia	1,928	2,297	2,335	2,777	1,596	1,104	4,361	2,874
Cook Islands	3	6	1	4	7	6	5	7
Fiji	51	75	55	174	73	100	16	1
Nauru	0	0	0	2	0	2	1	2
New Zealand	861	651	700	712	595	404	536	94
Palau	...	...	1	2	...	...	1	3
Papua New Guinea	5	20	19	42	45	50	16	41
Samoa	30	23	15	16	34	25	22	30
Solomon Islands	4	4	2	2	7	26	9	5
Tonga	2	6	1	5	15	10	5	7
Vanuatu	0	...	0	4	7	...	7	30
South Asia								
Bangladesh	122	387	172	...	359	3,485	854	...
Bhutan	...	...	...	5	...	...	...	10
India	...	...	...	7,997	...	...	...	6,151
Maldives	71	32	22	38	60	50	22	46
Nepal	...	...	37	59	...	...	25	221
Sri Lanka	...	...	75	70	...	...	0	0
Southeast Asia								
Brunei Darussalam	...	...	0	0	...	...	0	0
Cambodia	49	43	29	13	96	598	30	0
Indonesia	858	821	801	838	3,147	1,997	504	0
Lao PDR	...	39	69	0	...	14	12	0
Malaysia	710	383	397	404	614	325	486	388
Philippines	340	363	291	394	1,350	1,178	1,071	1,133
Singapore	126	176	163	158	134	163	200	176
Thailand	1,273	1,358	1,248	2,261	1,863	991	1,449	1,760
Timor-Leste	0	0	0	9	...	4	1	9
Viet Nam	1,936	1,854	1,092	1,186	1,883	162	451	3,226

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] The significant increase in number of staff in both 2018 and 2019 reflects the integration of state and local tax authorities.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.19: Staff Attrition and Churn Rates, FYs 2018–2021

Region/Economy	Staff Attrition Rate (%)[a]				Staff Churn Rate (%)[b]			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	23.8	29.4	15.6	12.9	43.7	51.3	31.6	24.9
Azerbaijan	16.3	14.1	4.6	7.0	36.3	44.5	8.4	16.1
Georgia	4.0	3.2	2.8	5.4	13.3	12.0	6.4	6.6
Kazakhstan	8.9	27.3	13.7	12.0	22.1	55.9	33.2	29.4
Kyrgyz Republic	4.5	7.4	2.1	...	8.4	14.1	12.0	...
Pakistan	5.6	5.9	4.1	1.4	8.8	8.6	4.9	2.3
Tajikistan	...	...	7.1	8.6	...	...	17.0	18.6
Uzbekistan	14.7	7.6	12.3	5.9	24.9	17.5	16.8	9.5
East Asia								
China, People's Rep. of	8.6	5.3	4.1	3.7	77.5[c]	7.9	6.7	5.9
Hong Kong, China	6.7	7.4	7.1	7.6	14.8	14.8	15.4	14.3
Japan	...	...	5.7	7.5	...	...	11.3	15.1
Korea, Rep. of	...	...	...	...	...	...	0.5	...
Mongolia	5.6	5.8	3.4	6.4	10.5	7.2	7.9	11.1
Taipei,China	6.2	6.0	5.5	5.6	11.2	11.9	11.1	9.8
Pacific								
Australia	9.4	11.6	11.6	13.1	17.2	17.2	33.2	26.6
Cook Islands	11.5	23.1	3.8	13.3	38.5	46.2	23.1	36.7
Fiji	6.0	8.5	6.2	22.5	14.6	19.9	8.1	22.6
Nauru	...	...	...	11.8	...	...	6.1	23.5
New Zealand	16.3	13.0	14.6	16.1	27.6	21.1	25.7	18.3
Palau	...	...	4.8	9.3	...	...	9.5	23.3
Papua New Guinea	0.9	3.0	2.7	6.0	8.9	10.6	5.0	11.9
Samoa	15.7	11.0	7.1	7.4	33.4	22.9	17.5	21.2
Solomon Islands	3.8	3.5	1.6	1.7	10.3	26.5	9.1	5.9
Tonga	2.1	5.9	1.0	4.8	17.4	15.8	5.9	11.4
Vanuatu	...	...	0.0	2.8	...	...	6.5	23.5
South Asia								
Bangladesh	1.4	3.8	1.4	...	5.6	37.8	8.5	...
Bhutan	...	...	...	2.3	...	...	...	6.8
India	...	...	...	8.5	...	...	...	15.1
Maldives	25.0	11.1	7.4	12.6	46.0	28.5	14.8	27.9
Nepal	...	...	2.9	4.3	...	...	4.8	20.4
Sri Lanka	...	...	2.9	2.8	...	...	3.7	2.8
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	...	...
Cambodia	2.5	1.9	1.2	0.5	7.5	28.7	2.3	0.5
Indonesia	1.9	1.8	1.7	1.8	9.1	6.1	2.8	1.8
Lao PDR	...	3.1	...	0	...	4.3	...	0
Malaysia	5.4	2.9	3.1	3.0	10.1	5.4	6.8	6.0
Philippines	3.1	3.0	2.3	2.9	15.3	12.9	10.7	11.3
Singapore	6.6	9.2	8.5	8.2	13.6	17.8	18.9	17.2
Thailand	5.8	6.2	5.7	10.8	14.4	10.7	12.4	19.2
Timor-Leste	0.0	0.0	0.0	8.2	...	3.6	0.9	16.4
Viet Nam	5.2	4.8	2.8	3.4	10.3	5.3	4.0	12.5
Average (unweighted) %	**7.8**	**7.8**	**4.8**	**6.7**	**20.4**	**19.1**	**11.2**	**14.0**

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Staff attrition rates = [number of staff departures in FY / ((number of staff at start of FY + number of staff at end-FY)/2)) x 100].

[b] Staff churn rates reflect the impact of both staff departures and recruits in a fiscal year, expressed as a proportion of average staffing levels.

[c] People's Republic of China: The high rate of staff churn calculated reflects the integration of state and local tax authorities in 2018.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.20: Staff Demographics—Academic Qualifications and Age (numbers)**, FY2021**

Region/Economy	Characteristics of Permanent Staff[a] (numbers of staff at end-FY2021)							
	Academic Qualifications		Age (by age groupings)					
	Master's (or equiv.)	Bachelor's (or equiv.)	Under 25 Years	25–34 Years	35–44 Years	45–54 Years	55–64 Years	Over 64 Years
Central and West Asia								
Armenia[a]	2,598	340	189	1,019	670	636	400	24
Azerbaijan	943	1,833	125	1,093	947	290	310	11
Georgia	1,095	2,415	2	1,414	1,261	522	289	103
Kazakhstan[a]	7,569	5,486	104	3,398	4,444	2,707	2,220	182
Kyrgyz Republic	199	2,281	73	727	730	572	411	57
Pakistan	2,769	4,283	369	4,204	2,375	7,491	5,760	0
Tajikistan	1,594	180	352	595	515	288	24	0
Uzbekistan	3,190	6,653	334	3,426	3,653	1,699	723	0
East Asia								
China, People's Rep. of	59,050	494,455	21,476	156,801	119,634	270,768	129,692	0
Hong Kong, China	94	1,220	122	720	629	779	565	0
Japan	1,000	30,000	4,674	11,766	10,520	16,794	10,632	127
Korea, Rep. of	702	16,969	195	4,425	7,389	7,110	2,404	4
Mongolia	421	1,296	94	469	688	474	85	0
Taipei,China	2,066	4,578	79	1,204	2,204	2,840	2,081	34
Pacific								
Australia	3,289	6,086	1,399	4,371	5,515	5,673	3,856	467
Cook Islands	4	1	6	9	9	3	2	3
Fiji	35	...	6	266	240	165	11	0
Nauru	0	1	3	3	3	5	3	0
New Zealand	...	...	96	841	940	1,071	943	215
Palau	2	3	0	5	2	10	5	0
Papua New Guinea	9	240	38	319	228	86	25	1
Samoa	4	105	84	85	37	9	4	0
Solomon Islands	11	12	0	42	47	28	4	0
Tonga	5	36	16	47	24	10	9	0
Vanuatu[a]	9	38	6	72	73	18	8	0
South Asia								
Bangladesh	...	...	...	...	...	...	...	...
Bhutan	23	103	9	89	103	22	0	0
India	12,493	51,959	...	...	...	...	...	...
Maldives	58	129	84	193	26	1	1	0
Nepal	405	220	90	492	617	153	99	0
Sri Lanka	464	1,614	8	612	1,054	532	275	0
Southeast Asia								
Brunei Darussalam	7	27	0	23	18	6	2	0
Cambodia	589	1,545	1	1,316	544	434	206	0
Indonesia	7,049	16,734	8,407	14,523	12,448	8,741	1,263	0
Lao PDR	200	2,070	237	672	781	374	206	0
Malaysia	764	6,436	943	3,266	5,268	2,659	1,113	0
Philippines	2,413	9,363	1,241	5,363	2,294	2,255	2,763	1
Singapore	108	1,679	42	578	635	420	253	19
Thailand	4,839	10,843	319	3,707	5,146	8,211	3,294	0
Timor-Leste	19	43	0	11	2	53	16	1
Viet Nam	6,995	25,990	748	8,642	10,767	12,423	3,703	0

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data are for all revenue body staff, including for customs administration where applicable.

Source: ISORA 2022.

Table A.21: Staff Demographics—Academic Qualifications and Age (% share of staff), **FY2021**

| Region/Economy | Characteristics of Permanent Staff[a] (% share of total staff at end-FY2021) | | | | | | | |
| | Academically Qualified | | Age (by age grouping) | | | | | |
	Master's (or equiv.)	Bachelor's (or equiv.)	< 25 Years	25–34 Years	35–44 Years	45–54 Years	55–64 Years	64 Years+
Central and West Asia								
Armenia[a]	88.4	11.6	6.4	34.7	22.8	21.6	13.6	0.8
Azerbaijan	33.1	66.9	4.5	39.4	34.1	10.4	11.2	0.4
Georgia	30.5	67.3	0.1	39.4	35.1	14.5	8.0	2.9
Kazakhstan[a]	58.0	42.0	0.8	26.0	34.0	20.7	17.0	1.4
Kyrgyz Republic	7.7	88.8	2.8	28.3	28.4	22.3	16.0	2.2
Pakistan	13.3	20.6	1.8	20.8	11.8	37.1	28.5	0
Tajikistan	89.9	10.1	19.8	33.5	29.0	16.2	1.4	0.0
Uzbekistan	32.4	67.6	3.4	34.8	37.1	17.3	7.3	0.1
East Asia								
China, People's Rep. of	8.5	70.8	3.1	22.5	17.1	38.8	18.6	0.0
Hong Kong, China	3.3	43.3	4.3	25.6	22.3	27.7	20.1	0.0
Japan	1.9	56.6	8.6	21.6	19.3	30.8	19.5	0.2
Korea, Rep. of	3.3	78.8	0.9	20.6	34.3	33.0	11.2	0.0
Mongolia	23.3	71.6	5.2	25.9	38.0	26.2	4.7	0.0
Taipei,China	24.5	54.2	0.9	14.3	26.1	33.6	24.7	0.4
Pacific								
Australia	15.5	28.6	6.6	20.5	25.9	26.7	18.1	2.2
Cook Islands	12.5	3.1	18.8	28.1	28.1	9.4	6.3	9.4
Fiji	5.1		0.9	38.7	34.9	24.0	1.6	0.0
Nauru	0.0	5.9	17.6	17.6	17.6	29.4	17.6	0.0
New Zealand	...	...	2.3	20.5	22.9	26.1	23.0	5.2
Palau	9.1	13.6	0.0	22.7	9.1	45.5	22.7	0.0
Papua New Guinea	1.3	34.4	5.5	45.8	32.7	12.3	3.6	0.1
Samoa	1.8	47.9	38.4	38.8	16.9	4.1	1.8	0.0
Solomon Islands	9.1	9.9	0.0	34.7	38.8	23.1	3.3	0.0
Tonga	4.7	34.0	15.1	44.3	22.6	9.4	8.5	0.0
Vanuatu	5.1	21.5	3.4	40.7	41.2	10.2	4.5	0.0
South Asia								
Bangladesh	...	...	...	...	...	...	...	...
Bhutan	10.3	46.2	4.0	39.9	46.2	9.9	0.0	0.0
India	13.5	56.0	...	...	...	...	...	...
Maldives	19.0	42.3	27.5	63.3	8.5	0.3	0.3	0.0
Nepal	27.9	15.2	6.2	33.9	42.5	10.5	6.8	0.0
Sri Lanka	18.7	65.1	0.3	24.7	42.5	21.4	11.1	0.0
Southeast Asia								
Brunei Darussalam	14.3	55.1	0.0	46.9	36.7	12.2	4.1	0.0
Cambodia	23.6	61.8	0.0	52.6	21.8	17.4	8.2	0.0
Indonesia	15.5	36.9	18.5	32.0	27.4	19.3	2.8	0.0
Lao PDR	8.8	91.2	10.4	29.5	34.3	16.4	9.1	0.0
Malaysia	5.8	48.6	7.1	24.7	39.8	20.1	8.4	0.0
Philippines	17.3	67.3	8.9	38.5	16.5	16.2	19.9	0.0
Singapore	5.5	86.2	2.2	29.7	32.6	21.6	13.0	1.0
Thailand	23.4	52.4	1.5	17.9	24.9	39.7	15.9	0.0
Timor-Leste	17.3	39.1	0.0	13.3	2.4	63.9	19.3	1.2
Viet Nam	19.3	71.6	2.1	23.8	29.7	34.2	10.2	0.0
Average (unweighted) %	**20.6**	**44.8**	**6.8**	**30.9**	**27.5**	**22.7**	**11.4**	**0.7**

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data are for all revenue body staff, including for customs administration where applicable.

Sources: ISORA 2022.

Table A.22: Staff Demographics—Length of Service and Gender (numbers of staff), FY2021

	Characteristics of Permanent Staff[a] (numbers of staff at end-FY2021)							
	Length of Service Distribution (by no. of years)				Staff (by gender)		Executives (by gender)	
Region/Economy	< 5 Years	5–9 Years	10–19 Years	Over 19 Years	Female	Male	Female	Male
Central and West Asia								
Armenia	1,550	351	585	452	1,146	1,792	84	239
Azerbaijan	1,027	496	677	576	455	2,321	54	505
Georgia	661	1,052	1,624	254	1,793	1,798	83	298
Kazakhstan	2,030	3,562	5,086	2,377	6,698	6,357	3,513	2,147
Kyrgyz Republic	534	768	851	417	873	1,697	0	5
Pakistan	2,306	2,693	1,823	13,377	1,024	19,175	425	1,848
Tajikistan	480	462	674	158	198	1,576	30	343
Uzbekistan	1,800	2,085	3,287	2,671	1,024	8,819	117	2,946
East Asia								
China, People's Rep. of	75,499	84,734	89,818	448,320	268,876	429,495	2,840	18,998
Hong Kong, China	768	507	284	1,256	1,897	918	12	10
Japan	8,187	5,869	10,917	28,941	12,331	41,583	324	3,189
Korea, Rep. of	4,934	3,633	6,376	6,584	9,604	11,923	1	36
Mongolia	102	498	649	561	1,177	633	141	58
Taipei,China	1,013	1,239	2,389	3,801	6,629	1,813	388	152
Pacific								
Australia	7,467	2,801	6,749	4,264	12,236	9,033	2,815	2,726
Cook Islands	22	5	2	3	24	8	1	7
Fiji	160	175	212	141	343	345	0	6
Nauru	3	8	6	0	14	3	...	...
New Zealand	838	899	1,336	1,033	2,624	1,469	16	17
Palau	6	2	4	10	11	11	1	1
Papua New Guinea	298	208	107	84	313	384	1	2
Samoa	84	73	41	21	114	105	5	8
Solomon Islands	26	37	34	24	52	69	1	6
Tonga	68	13	14	11	73	33	3	6
Vanuatu	64	41	37	35	68	109	1	2
South Asia								
Bangladesh	...	...	...	...	...	...	...	...
Bhutan	35	61	93	34	114	104	1	4
India	...	...	...	...	14,542	78,203	...	...
Maldives	162	126	17	0	170	135	4	8
Nepal	330	291	416	414	492	959	4	92
Sri Lanka	842	179	1,020	440	1,087	1,394	12	21
Southeast Asia								
Brunei Darussalam	8	16	17	8	32	17	1	0
Cambodia	1,001	631	234	635	815	1,686	23	198
Indonesia	9,255	11,024	11,815	13,288	16,219	29,163	4	47
Lao PDR	382	615	897	376	638	1,632	98	274
Malaysia	3,533	1,652	4,831	3,233	7,443	5,806	154	170
Philippines	6,430	1,097	1,949	4,441	9,065	4,852	240	148
Singapore	503	311	453	680	1,351	596	9	9
Thailand	4,303	1,779	2,980	11,615	16,412	4,265	106	57
Timor-Leste	9	0	88	13	45	65	6	12
Viet Nam	5,276	4,617	11,560	14,830	18,519	17,764	36	234

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data are for all revenue body staff, including customs where applicable.

Source: ISORA 2022.

Table A.23: Staff Demographics—Length of Service and Gender (% share of staff), FY2021

Region/Economy	Characteristics of Permanent Staff[a] (% share of staff at end-FY2021)							
	Length of Service Distribution (by no. of years)				Staff (by gender)		Executives (by gender and % of all executives)	
	< 5 years	5–9 Years	10–19 Years	> 19 Years	Female	Male	Female	Male
Central and West Asia								
Armenia	52.8	11.9	19.9	15.4	39.0	61.0	26.0	74.0
Azerbaijan	37.0	17.9	24.4	20.7	16.4	83.6	9.7	90.3
Georgia	18.4	29.3	45.2	7.1	49.9	50.1	21.8	78.2
Kazakhstan	15.5	27.3	39.0	18.2	51.3	48.7	62.1	37.9
Kyrgyz Republic	20.8	29.9	31.1	16.2	34.0	66.0	0	100
Pakistan	11.4	13.3	9.0	66.2	5.1	94.9	18.7	81.3
Tajikistan	27.1	26.0	38.0	8.9	11.2	88.8	8.0	92.0
Uzbekistan	18.3	21.2	33.4	27.1	10.4	89.6	3.8	96.2
East Asia								
China, People's Rep. of	10.8	12.1	12.9	64.2	38.5	61.5	13.0	87.0
Hong Kong, China	27.3	18.0	10.1	44.6	67.4	32.6	54.5	45.5
Japan	15.2	10.9	20.2	53.7	22.9	77.1	9.2	90.8
Korea, Rep. of	22.9	16.9	29.6	30.6	44.6	55.4	2.7	97.3
Mongolia	5.6	27.5	35.9	31.0	65.0	35.0	70.9	29.1
Taipei,China	12.0	14.7	28.3	45.0	78.5	21.5	71.9	28.1
Pacific								
Australia	35.1	13.2	31.7	20.0	57.5	42.5	50.8	49.2
Cook Islands	68.8	15.6	6.3	9.4	75.0	25.0	12.5	87.5
Fiji	23.3	25.4	30.8	20.5	49.9	50.1	0.0	100.0
Nauru	17.6	47.1	35.3	0.0	82.4	17.6	...	...
New Zealand	20.4	21.9	32.5	25.2	64.1	35.9	48.5	51.5
Palau	27.3	9.1	18.2	45.5	50.0	50.0	50.0	50.0
Papua New Guinea	42.8	29.8	15.4	12.1	44.9	55.1	33.3	66.7
Samoa	38.4	33.3	18.7	9.6	52.1	47.9	38.5	61.5
Solomon Islands	21.5	30.6	28.1	19.8	43.0	57.0	14.3	85.7
Tonga	64.2	12.3	13.2	10.4	68.9	31.1	33.3	66.7
Vanuatu	36.2	23.2	20.9	19.8	38.4	61.6	33.3	66.7
South Asia								
Bangladesh	...	...	...	...	...	...	...	...
Bhutan	15.7	27.4	41.7	15.2	52.3	47.7	20.0	80.0
India	...	...	...	...	15.7	84.3	...	...
Maldives	53.1	41.3	5.6	0.0	55.7	44.3	33.3	66.7
Nepal	22.7	20.1	28.7	28.5	33.9	66.1	4.2	95.8
Sri Lanka	33.9	7.2	41.1	17.7	43.8	56.2	36.4	63.6
Southeast Asia								
Brunei Darussalam	16.3	32.7	34.7	16.3	65.3	34.7	100.0	0.0
Cambodia	40.0	25.2	9.4	25.4	32.6	67.4	10.4	89.6
Indonesia	20.4	24.3	26.0	29.3	35.7	64.3	7.8	92.2
Lao PDR	16.8	27.1	39.5	16.6	28.1	71.9	26.3	73.7
Malaysia	26.7	12.5	36.5	24.4	56.2	43.8	47.5	52.5
Philippines	46.2	7.9	14.0	31.9	65.1	34.9	61.9	38.1
Singapore	25.8	16.0	23.3	34.9	69.4	30.6	50.0	50.0
Thailand	20.8	8.6	14.4	56.2	79.4	20.6	65.0	35.0
Timor-Leste	8.2	0.0	80.0	11.8	40.9	59.1	33.3	66.7
Viet Nam	14.5	12.7	31.9	40.9	51.0	49.0	13.3	86.7
Average (unweighted) %	**27.0**	**20.5**	**27.1**	**25.4**	**46.4**	**53.6**	**29.6**	**70.4**

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data are for all revenue body staff, including customs where applicable.

Source: ISORA 2022.

Table A.24: Female Participation in Revenue Bodies' Workforces, FY2016 and FYs 2019–2021

Region/Economy	Female Staff (% of all staff at end-FY)				Female Executives (% of all executives at end-FY)			
	FY2016	FY2019	FY2020	FY2021	FY2016	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	38.0	30.0	37.1	39.0	20.6	23.5	24.4	26.0
Azerbaijan	11.6	21.0	15.2	16.4	4.9	8.4	8.4	9.7
Georgia	45.0	49.8	49.3	49.9	21.2	21.9	23.7	21.8
Kazakhstan	40.4	48.1	49.3	51.3	...	...	51.3	62.1
Kyrgyz Republic	33.2	33.1	33.6	34.0	11.9	12.3	7.4	0
Pakistan	...	4.6	5.1	5.1	...	17.8	24.3	18.7
Tajikistan	9.6	10.1	11.3	9.1	...	5.7	8.0	8.0
Uzbekistan	11.3	10.7	9.5	10.4	3.8	3.5	3.6	3.8
East Asia								
China, People's Rep. of	37.8	38.0	38.2	38.5	10.9	10.6	11.5	13.0
Hong Kong, China	65.6	68.2	67.6	67.4	56.0	52.2	52.0	54.5
Japan	...	...	22.2	22.9	...	...	7.8	9.2
Korea, Rep. of	38.0	57.7	56.4	44.6	1.9	2.9	2.7	2.7
Mongolia	65.8	65.0	67.9	65.0	11.0	29.8	49.2	70.9
Taipei,China	60.7	78.7	78.4	78.5	66.2	73.2	67.3	71.9
Pacific								
Australia	47.6	57.2	57.9	57.5	48.0	49.1	50.2	50.8
Cook Islands	...	...	71.4	75.0	...	...	16.6	12.5
Fiji	42.8	50.7	51.2	49.9	25.0	35.3	50	0.0
Nauru	...	...	82.5	82.4	...	...	...	...
New Zealand	62.3	64.0	64.0	64.1	26.9	45.1	41.7	48.5
Palau	...	...	47.3	50.0	...	...	50.0	50.0
Papua New Guinea	48.0	...	47.6	44.9	57.1	44.4	33.3	33.3
Samoa	49.5	51.8	45.6	52.1	41.7	40.0	40.0	38.5
Solomon Islands	30.0	41.5	40.0	43.0	12.5	20.0	14.3	14.3
Tonga	...	...	67.0	68.9	...	...	42.9	33.3
Vanuatu	...	...	58.9	38.4	...	...	33.3	33.3
South Asia								
Bangladesh	...	23.1	18.8	...	...	11.7	26.9	...
Bhutan	...	...	...	52.3	...	...	...	20.0
India	...	...	...	15.7	...	...	...	...
Maldives	50.7	52.5	53.9	55.7	28.6	34.6	27.3	33.3
Nepal	...	...	29.0	33.9	...	...	2.1	4.2
Sri Lanka	57.4	...	51.9	43.8	44.2	...	28.3	27.3
Southeast Asia								
Brunei Darussalam	...	...	67.0	65.3	...	...	...	...
Cambodia	26.8	32.4	32.7	32.6	27.0	21.6	10.3	10.4
Indonesia	29.8	35.3	35.6	35.7	4.3	10.7	10.9	7.8
Lao PDR	...	25.8	26.2	28.1	...	...	...	26.3
Malaysia	44.3	58.6	56.5	56.2	54.9	43.7	50.0	47.5
Philippines	60.8	64.8	65.2	65.1	59.1	58.7	60.0	61.9
Singapore	70.9	72.7	70.6	69.4	71.7	57.9	50.0	50.0
Thailand	77.5	78.5	79.1	79.4	60.1	58.0	62.3	65.0
Timor-Leste	...	43.9	44.3	40.9	...	37.5	37.5	33.3
Viet Nam	41.7	45.9	45.6	51.0	...	...	...	13.3
Average (unweighted) %	**44.3**	**45.3**	**47.5**	**46.4**	**32.1**	**30.7**	**31.5**	**29.6**

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

Sources: ISORA 2018; ISORA 2020; ISORA 2022.

Table A.25: Large Taxpayer Office/Program—Functions Performed, FY2021

Region/Economy	Large Taxpayer Office or Program	Tax Functions Performed within Large Taxpayer Office/Program in FY2021					
		Registration	Returns/ Payments	Taxpayer Services	Verification	Debt Collection	Dispute Resolution
Central and West Asia							
Azerbaijan	✓	✓	✓	✓	✓	✓	X
Georgia	✓	X	X	✓	✓	X	X
Kazakhstan	✓	✓	✓	✓	✓	✓	✓
Kyrgyz Republic	✓	X	X	X	✓	✓	✓
Pakistan	✓	✓	✓	✓	✓	✓	✓
Tajikistan	✓	✓	✓	✓	✓	✓	✓
Uzbekistan	✓	X	✓	✓	✓	✓	✓
East Asia							
China, People's Rep. of	✓	X	X	✓	✓	X	✓
Hong Kong, China	✓	X	✓	✓	✓	X	✓
Japan	✓	X	X	✓	✓	X	✓
Korea, Rep. of	X	–	–	–	–	–	–
Mongolia	✓	X	✓	✓	✓	✓	X
Taipei,China	X	–	–	–	–	–	–
Pacific							
Australia	✓	X	X	✓	✓	X	✓
Cook Islands	✓	X	X	X	✓	X	X
Fiji	✓	X	✓	✓	✓	✓	X
Nauru	✓	✓	✓	✓	✓	✓	✓
New Zealand	✓	✓	✓	✓	✓	✓	✓
Palau	X	–	–	–	–	–	–
Papua New Guinea	✓	X	✓	✓	✓	✓	X
Samoa	✓	✓	✓	✓	✓	✓	X
Solomon Islands	✓	X	✓	✓	✓	✓	X
Tonga	✓	✓	✓	✓	✓	✓	X
Vanuatu	X	–	–	–	–	–	–
South Asia							
Bangladesh	✓	✓	✓	✓	✓	✓	✓
Bhutan	X	–	–	–	–	–	–
India[a]	✓[a]	X	X	✓	✓	✓	X
Maldives	✓	X	X	X	✓	X	X
Nepal	✓	X	✓	✓	✓	✓	X
Sri Lanka	✓	X	X	X	✓	X	X
Southeast Asia							
Brunei Darussalam	X	–	–	–	–	–	–
Cambodia	✓	X	✓	✓	✓	✓	X
Indonesia	✓	X	✓	✓	✓	✓	✓
Lao PDR	✓	✓	✓	✓	✓	✓	✓
Malaysia	✓	✓	✓	✓	✓	✓	✓
Philippines	✓	✓	✓	✓	✓	✓	✓
Singapore	✓	X	X	✓	✓	X	✓
Thailand	✓	X	X	✓	✓	✓	✓
Timor-Leste	X	–	–	–	–	–	–
Viet Nam	✓	X	X	✓	✓	X	X

– = no data at cut-off date, ✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] India: The Large Taxpayer Office/Program is responsible only for income taxes.

Source: ISORA 2022.

Table A.26: Large Taxpayer Operations—Staffing Usage, FYs 2018–2021

| | Staffing of Large Taxpayer Office/Program (no. of FTEs) | | | | | | | |
| | All Functions and Activities | | | | Verification Activities | | | |
Region/Economy	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	111	96	79	69	72	60	51	54
Azerbaijan	45	50	199	191	45	50	91	93
Georgia	17	55[a]	55	51	...	38[a]	38	41
Kazakhstan	152	160	57	92	139	157	15	89
Kyrgyz Republic	66	65	69	72	24	24	23	25
Pakistan	464	443	973	1,092	373	367	204	470
Tajikistan	143	173	81	77	94	108	17	15
Uzbekistan	0	116[a]	104	142	...	...	26	46
East Asia								
China, People's Rep. of	7,300	15,570	9,034	9,124	4,380	9,340	4,517	4,562
Hong Kong, China	0	0	6[a]	6	0	0	6	6
Japan	2,325	2,326	2,326	2,326	...	...	...	...
Korea, Rep. of	0	0	0	0	0	0	0	0
Mongolia	78	80	61	61	30	29	25	33
Taipei,China	0	0	0	0	0	0	0	0
Pacific								
Australia	1,359	1,378	1,422	1,455	829	867	1,179	1,199
Cook Islands	0	0	5	4	0	0	5	4
Fiji	...	...	147	137	...	...	14	12
Nauru	3	5	4	10	2	4	3	3
New Zealand	320	316	324	344	183	173	165	137
Palau	0	0	0	0	0	0	0	0
Papua New Guinea	29	33	33	39	22	25	22	19
Samoa	27	25	20	27	18	17	20	20
Solomon Islands	0	0	...	8a	0	0	...	3
Tonga	...	...	...	8	...	...	...	3
Vanuatu	0	0	0	0	0	0	0	0
South Asia								
Bangladesh	248	226	189		215	118	62	
Bhutan	0	0	0	0	0	0	0	0
India	...	...	...	...	...	...	...	...
Maldives	21	25	22	32	21	25	21	31
Nepal	...	...	67	68	...	...	44	45
Sri Lanka	70	...	204	206	70	...	204	97
Southeast Asia								
Brunei Darussalam	0	0	0	0	0	0	0	0
Cambodia	195	251	283	249	152	196	149	149
Indonesia	684	664	652	580	240	181	348	269
Lao PDR	29	29	32	127	25	25	23	25
Malaysia	490	454	455	465	293	279	230	344
Philippines	670	687	750	757	276	275	337	327
Singapore	81	81	81	80	73	72	72	70
Thailand	530	530	518	520	314	314	296	231
Timor-Leste	0	0	0	0	0	0	0	0
Viet Nam	62	64	64	69	61	63	64	59

... = no data at cut-off date, FTE = full-time equivalent, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] First year of operation of Large Taxpayer Office.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.27: Large Taxpayer Operations—Taxpayers Managed, FYs 2018–2021

| | Taxpayers under Management of Large Taxpayer Office/Program (no. at end-FY) | | | | | | | |
| | Corporate Taxpayers | | | | Individual Taxpayers | | | |
Region/Economy	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	1,260	1,481	1,931	2,042	14	8	40	57
Azerbaijan	563	560	925	924	0	0	0	0
Georgia	265	267	267	202	0	0	0	0
Kazakhstan	321	336	336	242	0	0	0	0
Kyrgyz Republic	239	239	319	446	0	0	0	0
Pakistan	2,614	2,471	4,694	2,424	4,944	5,998	26,351	929
Tajikistan	377	362	733	638	0	0	0	0
Uzbekistan	0	1,416	836	1,140	0	0	0	0
East Asia								
China, People's Rep. of	275,000	275,000	335,000	335,100	0	0	0	0
Hong Kong, China	0	0	774	880	0	0	0	0
Japan	32,000	33,000	34,000	35,000	0	0	...	0
Korea, Rep. of	0	0	0	0	0	0	0	0
Mongolia	391	390	508	604	0	0	0	0
Taipei,China	0	0	0	0	0	0	0	0
Pacific								
Australia	29,000	30,000	31,252	33,350	0	0	0	0
Fiji	...	...	474	470	...	...	198	190
Cook Islands	0	0	40	40	0	0	21	21
Nauru	45	45	46	50	161	96	145	0
New Zealand	985	995	1,052	1,164	0	0	0	400
Palau	0	0	0	0	0	0	0	0
Papua New Guinea	250	300	148	159	70	100	0	...
Samoa	804	822	382	124	...	...	...	11
Solomon Islands	0	0	...	50	0	0	...	12
Tonga	...	...	...	53	...	...	...	0
Vanuatu	0	0	0	0	0	0	0	0
South Asia								
Bangladesh	545	718	583	...	733	724	720	...
Bhutan	0	0	0	0	0	0	0	0
India	...	7,246	7,246	9,462	...	9,466	9,466	6,737
Maldives	442	483	688	691	22	28	60	58
Nepal	...	...	539	550	0	0	0	0
Sri Lanka	1,808	...	531	435	381	...	0	0
Southeast Asia								
Brunei Darussalam	0	0	0	0	0	0	0	0
Cambodia	3,609	4,090	5,059	6,404	0	0	0	0
Indonesia	2,714	2,792	2,852	2,835	1,315	1,309	1,485	1,477
Lao PDR	...	458	349	505	0	0	0	0
Malaysia	49,178	49,721	56,575	57,845	3,743	4,801	5,469	10,995
Philippines	2,768	2,765	2,735	2,757	0	0	0	0
Singapore	1,900	2,000	1,900	1,800	0	0	0	0
Thailand	3,920	3,920	3,539	3,535	0	0	0	0
Timor-Leste	0	0	0	0	0	0	0	0
Viet Nam	429	429	428	125	0	0	0	0

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Proportion of all net tax revenue represented by corporate taxpayers administered under the large taxpayer program.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.28: Large Taxpayer Operations—Net Taxes and Taxpayers Managed, FYs 2018–2021

Region/Economy	Actual/Estimated Tax Revenue Paid by Large[a] Taxpayers (% of all taxes collected by revenue body)				Number of Corporate Taxpayers under Management per LTO FTE			
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2018	FY 2019	FY 2020	FY 2021
Central and West Asia								
Armenia	66	68	70	71	11	15	24	30
Azerbaijan	73	69	66	69	12	11	5	5
Georgia	31	33	48	35	16	5	5	4
Kazakhstan	…	…	…	…	2	2	6	3
Kyrgyz Republic	49	46	60	…	4	4	5	6
Pakistan	…	…	6	67	6	6	5	2
Tajikistan	49	45	49	51	3	2	9	8
Uzbekistan	0	64	65	64	0	12	8	8
East Asia								
China, People's Rep. of	45	45	45	43	38	18	39	37
Hong Kong, China	0	0	…	…	0	0	129	146
Japan	56	55	53	52	14	14	15	15
Korea, Rep. of	0	0	0	0	0	0	0	0
Mongolia	59	60	60	66	5	5	8	10
Taipei,China	0	0	0	0	0	0	0	0
Pacific								
Australia	…	…	49[b]	49[b]	21	22	22	23
Fiji	…	…	60	65	0	0	8	3
Cook Islands	0	0	…	43	…	…	28	10
Nauru	82	93	85	97	…	…	11	5
New Zealand	30	30	57	58	3	3	3	3
Palau	0	0	0	0	0	0	0	0
Papua New Guinea	90	95	75	80	9	9	4	4
Samoa	35	36	…	…	30	37	19	5
Solomon Islands	0	0	…	75	0	0	…	6
Tonga	…	…	…	56	…	…	…	6
Vanuatu	0	0	0	0	0	0	0	0
South Asia								
Bangladesh	22	29	29		2	3	3	
Bhutan	0	0	0	0	0	0	0	0
India	…	…	…	…	…	…	…	…
Maldives	64	62	68	73	21	19	31	22
Nepal	…	…	31	38	…	…	8	8
Sri Lanka	72	…	…	…	26	…	3	2
Southeast Asia								
Brunei Darussalam	0	0	0	0	0	0	0	0
Cambodia	80	80	73	70	19	16	18	22
Indonesia	32	30	27	29	4	4	4	5
Lao PDR	…	…	95	67	…	16	11	4
Malaysia	31	33	35	39	100	110	124	124
Philippines	68	67	67	64	4	4	4	4
Singapore	..	…	…	…	23	25	23	23
Thailand	46	46	47	44	7	7	7	7
Timor-Leste	0	0	0	0	0	0	0	0
Viet Nam	…	…	…	17	7	7	7	2

… = no data at cut-off date, FTE = full-time equivalent, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, LTO = Large Taxpayer Office.

[a] Estimated proportion of all net tax revenue of the corporate taxpayers administered under the large taxpayer program.

[b] Australia: This estimate of net tax revenue of large corporates does not include employers' withholdings of income tax.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.29: Large Taxpayer Operations—Verification Activities, FYs 2018–2021

Region/Economy	Completed Audits of Large Taxpayers (no.)				Value of Assessments Raised (including penalties and interest) (million, local currency)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	506	719	565	742	17,794	33,720	22,819	32,599
Azerbaijan	212	54	6,948	66	141	90	...	146
Georgia	79	96	32	26	39	91	51	38
Kazakhstan	6	7	39	46	20,000	43,000	1,086,000	49,050
Kyrgyz Republic	260	249	79	...	2,409	1,615	1,127	...
Pakistan	1,680	1,984	780	2,600	221,000	299,000	437,161	1,719,370
Tajikistan	194	163	298	310	4	<1	249	51
Uzbekistan	0	22	181	32	0	12,424	177,678	586,339
East Asia								
China, People's Rep. of	2,051	34,836	9,857	14,836	...	...	...	...
Hong Kong, China	0	0	160	167	0	0	723	2,498
Japan	2,538	2,422	2,088	1,166	82,207	80,355	59,842	63,500
Korea, Rep. of	0	0	0	0	0	0	0	0
Mongolia	161	157	83	60	425,557	83,508	47,096	111,331
Taipei,China	0	0	0	0	0	0	0	0
Pacific								
Australia	44	56	84	50	3,004	1,529	2,783	1,815
Cook Islands	0	0	...	0	0	0	...	0
Fiji	...	...	85	80	...	...	15	...
Nauru	0	0	0	0	0	0	0	0
New Zealand	541	625	544	625	167	312	488	407
Palau	0	0	0	0	0	0	0	0
Papua New Guinea	7	17	1	1	500	26	2	3
Samoa	136	126	...	...	13	...	...	...
Solomon Islands	0	0	...	2	0	0	...	2,000[a]
Tonga	0	0	...	0	0	0	...	0
Vanuatu	0	0	0	0	0	0	0	0
South Asia								
Bangladesh	32	65	64		19,542	8,529	5,421	
Bhutan	0	0	0	0	0	0	0	0
India	...	299	416	197	...	23,504	32,408	6,617
Maldives	642	302	65	125	359	493	193	274
Nepal	...	...	435	576	...	...	5,698	68,370
Sri Lanka	892	...	...	196	24,748	...	...	20,909
Southeast Asia								
Brunei Darussalam	0	0	0	0	0	0	0	0
Cambodia	906	1,970	1,842	1,733	1,497,000	2,823,000	2,964,980	2,772,700
Indonesia	1,842	1,616	...	...	47,030,925	19,222,562	...	...
Lao PDR	171	135	108	1,350	353,561	173,667	207,000	220,000
Malaysia	19,139	25,515	18,795	19,326	5,751	10,971	8,165	8,964
Philippines	1,248	1,865	1,620	1,959	24,986	33,906	17,638	30,038
Singapore	...	...	...	...	...	...	..	...
Thailand	2,954	3,208	1,705	73	12,253	18,439	10,991	503
Timor-Leste	0	0	0	0	0	0	0	0
Viet Nam	45	34	26	5	281,000	460,000	363,088	43,500

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Expressed in 000s of local currency.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.30: Large Taxpayer Operations—Staffing Ratios, FYs 2018–2021

Region/Economy	LTO Staff on Verification Work (% of total LTO staff)				Total LTO Staff (% of FTEs on tax administration)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	65	63	65	78	7.0	6.5	6.0	4.8
Azerbaijan	100	100	46	48	1.3	1.4	7.6	7.0
Georgia	0	69	69	80	0.9	2.7	3.2	3.1
Kazakhstan	91	98	26	97	1.3	1.3	1.2	0.7
Kyrgyz Republic	36	36	33	35	3.0	3.0	2.8	2.8
Pakistan	80	83	21	43	2.2	2.2	4.9	5.4
Tajikistan	66	62	20	19	8.2	9.9	4.4	4.2
Uzbekistan	0	...	25	32	0	1.1	1.0	1.4
East Asia								
China, People's Rep. of	60	60	50	50	2.0	2.2	1.3	1.3
Hong Kong, China	0	0	100	100	0	0	0.2	0.2
Japan	...	...	...	...	4.2	4.2	4.2	4.2
Korea, Rep. of	0	0	0	0	0	0	0	0
Mongolia	38	36	41	54	4.1	4.4	3.3	3.3
Taipei,China	0	0	0	0	0	0	0	0
Pacific								
Australia	61	63	83	82	7.5	7.9	8.4	8.0
Cook Islands	0	0	100	100	0	0	16.1	11.8
Fiji	...	...	82	8	...	...	...	47.2
Nauru	...	...	75	40	...	...	24	70
New Zealand	57	55	51	40	6.2	6.5	6.9	8.4
Palau	0	0	0	0	0	0	0	0
Papua New Guinea	76	76	66	48	5.1	5.3	6.1	5.6
Samoa	67	65	100	74	29.0	26.0	18.2	27.0
Solomon Islands	0	0	...	38	0	0	...	7.1
Tonga	...	...	...	38	...	...	...	9.0
Vanuatu	0	0	0	0	0	0	0	0
South Asia								
Bangladesh	87	51	33	...	3.9	3.6	1.9	...
Bhutan	0	0	0	0	0	0	0	0
India	...	...	...	...	...	...	...	...
Maldives	100	100	95	97	7.5	9.0	7.4	10.5
Nepal	...	...	66	66	...	...	5.2	4.7
Sri Lanka	100	...	100	47	2.7	...	7.9	8.2
Southeast Asia								
Brunei Darussalam	0	0	0	0	0	0	0	0
Cambodia	78	78	53	60	10.0	10.0	11.3	10.0
Indonesia	35	27	53	46	1.5	1.4	1.4	1.3
Lao PDR	86	86	72	20	...	1.2	1.4	5.6
Malaysia	60	61	50	74	3.8	3.4	3.5	3.5
Philippines	41	40	45	43	5.9	5.7	5.7	5.6
Singapore	90	89	89	88	4.2	4.3	4.2	4.2
Thailand	59	59	57	44	2.4	2.4	2.4	2.3
Timor-Leste	0	0	0	0	0	0	0	0
Viet Nam	99	99	99	93	0.2	0.2	0.2	0.2

... = no data at cut-off date, FTE = full-time equivalent, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, LTO = large taxpayer office.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.31: High Net Wealth Individuals—Compliance Management, FY2021

Region/Economy	High Net Wealth Individual (HNWI) Taxpayers					
	Compliance Program		Actual or Estimated Share of Net Revenue (%)			
	In Place	Part of LTO	FY2018	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	X	X	0	0	0	0
Azerbaijan	X	X	0	0	0	0
Georgia	X	X	0	0	0	0
Kazakhstan	X	X	0	0	0	0
Kyrgyz Republic	X	X	0	0	0	0
Pakistan	X	X	0	0	0	0
Tajikistan	X	X	0	0	0	0
Uzbekistan	X	X	0	0	0	0
East Asia						
China, People's Rep. of	X	X	0	0	0	0
Hong Kong, China	X	X	0	0	0	0
Japan	✓	X	…	…	…	…
Korea, Rep. of	X	X	0	0	0	0
Mongolia	X	X	0	0	0	0
Taipei,China	✓	X	0	0	0	…
Pacific						
Australia	✓ [a]	✓ [a]	5	5	5	5
Cook Islands	✓	✓	…	…	…	…
Fiji	X	X	0	0	0	0
Nauru	X	X	0	0	0	0
New Zealand[b]	✓	✓	1	1	…	4
Palau	X	X	0	0	0	0
Papua New Guinea	✓	✓	1	2	0	0
Samoa	X	X	0	0	0	0
Solomon Islands	X	X	0	0	0	0
Tonga	✓	✓	0	0	0	1
Vanuatu	X	X	0	0	0	0
South Asia						
Bangladesh	X	X	0	0	0	0
Bhutan	X	X	0	0	0	0
India	X	X	0	0	0	0
Maldives	X	X	0	0	0	0
Nepal	X	X	0	0	0	0
Sri Lanka	✓	X	1	…	…	…
Southeast Asia						
Brunei Darussalam	X	X	0	0	0	0
Cambodia	X	X	0	0	0	0
Indonesia	✓	✓	1	1	0	0
Lao PDR	X	X	0	0	0	0
Malaysia	✓	✓	1	1	1	3
Philippines	X	X	0	0	0	0
Singapore	X	X	0	0	0	0
Thailand	X	X	0	0	0	0
Timor-Leste	X	X	0	0	0	0
Viet Nam	X	X	0	0	0	0

… = no data at cut-off date, ✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, LTO = large taxpayer office.

[a] Australia: The revenue body refers to this population as high wealth private groups (HWPGs). It includes Australian resident individuals who, together with their associates, control an estimated net wealth of over A$50 million. The ATO engages with HWPG through its Top 500 and Next 5000 tax performance programs, focusing on large privately owned and wealthy businesses

[b] New Zealand: There are 400 HWNI customers with over 12,000 associated entities. These customers are monitored within the large taxpayer program.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.32: Registered Taxpayers—Corporate Income Tax, FYs 2019–2021

Region/Economy	Total Registered Taxpayers (no. at end-FY)			Active Taxpayers (no. at end-FY)[a]		
	FY 2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	85,982	63,828	63,895	51,985	37,938	40,293
Azerbaijan	30,545	...	...	22,624	...	...
Georgia	290,021	298,672	319,333	94,954	138,083	96,210
Kazakhstan	114,805	480,598	...	...	441,520	...
Kyrgyz Republic	...	140,079	...	...	140,079	...
Pakistan	114,666	123,702	393,513	114,666	55,822	227,090
Tajikistan	4,997	4,045	4,593[b]	4,828	3,832	4,313[b]
Uzbekistan	51,326	115,662	153,915	51,103	115,087	153,303
East Asia						
China, People's Rep. of	29,603,184	33,378,321	37,916,979	25,244,714	28,639,272	34,012,943
Hong Kong, China	1,261,000	1,271,000	1,270,000	540,034	575,545	536,825
Japan	3,132,000	3,165,000	3,220,000	...	...	2,946,000
Korea, Rep. of	874,245	950,040	1,033,749	787,438	838,008	906,325
Mongolia	157,930	196,212	210,103	61,603	66,280	75,044
Taipei,China	1,455,229	1,494,716	1,543,932	961,241	990,403	1,026,434
Pacific						
Australia	10,847,850	11,192,616	11,590,407	4,669,944	4,805,008	4,957,347
Cook Islands	2,717	2,182	2,309	2,230	526	530
Fiji	14,047	18,739	21,634	12,836	18,739	20,559
Nauru	148	148	144	137	142	140
New Zealand	1,179,010	1,209,179	688,567	799,388	721,412	423,057
Palau	0	0	1,448	0	0	1,448
Papua New Guinea	26,000	43,054	45,942	15,000	19,416	15,405
Samoa	1,260	1,260	...	1,223	1,120	875
Solomon Islands	12,200	19,000	22,766	11,844	12,750	11,331
Tonga	1,121	837	...	680	837	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia						
Bangladesh	84,435	77,820	...	78,867	77,820	...
Bhutan	1,223	431	747	1,167	417	502
India	1,179,525	1,273,633	1,615,778	843,552	836,439	967,050
Maldives	42,442	12,748	14,440	37,268	12,702	14,137
Nepal	...	1,453,957	1,711,780	...	330,885	1,550,228
Sri Lanka	56,460[b]	60,721	68,009	...	...	...
Southeast Asia						
Brunei Darussalam	...	11,410	9,981	...	4,062	3,896
Cambodia	...	5,303[c]	6,404[c]	4,090[c]	5,059[c]	6,404[c]
Indonesia	3,557,438[d]	3,813,358	4,140,420	...	1,652,251	2,204,329
Lao PDR	...	3,369	25,953	...	2,538	18,205
Malaysia	1,310,979	1,310,979	1,369,952	838,245	1,133,317	1,144,844
Philippines	734,036	630,603	435,606	509,931	523,987	433,554
Singapore	344,658	385,592	385,592	...	...	...
Thailand	704,018	582,011	536,873	704,018	582,011	536,873
Timor-Leste	28,909	23,874	45,000	...	3,083	13,211
Viet Nam	1,636,149	1,785,147	1,912,854	862,337	917,523	920,816

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Active taxpayers are those who have a tax obligation in a fiscal year or who for any other purpose interact with the revenue body.

[b] Tajikistan: Revenue body reported that an additional 26,307 legal entities paid tax under a simplified tax regime, not the corporate income tax.

[c] Cambodia: Data reported are for large taxpayers only.

[d] Aggregates as per revenue body's annual reports.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; TADAT Performance Assessment Report, Bhutan, October 2022.

Table A.33: Registered Taxpayers—Personal Income Tax, FYs 2019–2021

Region/Economy	Registered Taxpayers (no. at end-FY)			Active Taxpayers[a] (no. at end-FY)		
	FY 2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	719,892	744,645	772,475	719,892	739,921	768,362
Azerbaijan	79,750	...	...	49,375	...	...
Georgia	...	3,543,234	3,625,864	1,288,122	1,433,523	1,340,284
Kazakhstan	1,524,375	4,434,009	...	...	...	1,340,284
Kyrgyz Republic	...	66,615	...	...	66,615	...
Pakistan	5,245,780	6,894,353	6,894,353	2,735,403	3,016,930	5,559,947
Tajikistan	17,006	16,032	20,216	16,862	15,290	19,670
Uzbekistan	4,702,440	4,586,695	4,704,006	4,702,440	4,586,695	4,704,006
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	3,860,000	3,820,000	3,649,000	3,170,111	3,212,031	3,148,105
Japan	...	...	...	...	...	22,493,000
Korea, Rep. of	7,640,000	7,810,036	9,109,000	7,595,000	...	...
Mongolia	193,181	139,437	374,513	28,301	17,316	113,613
Taipei,China	6,757,102	6,915,327	6,831,801	6,757,102	6,915,327	6,831,801
Pacific						
Australia	31,566,781	32,692,307	32,992,000	22,823,877	23,144,572	23,483,906
Cook Islands	28,279	24,354	24,829	23,271	4,597	5,342
Fiji	72,660	71,090	97,214	63,345	71,090	78,613
Nauru	...	...	...	...	...	...
New Zealand	7,216,889	7,194,572	7,384,062	4,036,414	3,952,284	3,970,976
Palau	...	...	11,142	...	...	11,142
Papua New Guinea	30,500	52,980	119,599	17,000	19,416	20,237
Samoa	...	...	...	...	...	4,354
Solomon Islands	6,340	5,300	5,500	4,222	3,100	3,300
Tonga	21,048	22,160	...	21,048	22,160	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia						
Bangladesh	3,825,011	4,964,150	...	3,456,896	4,964,150	...
Bhutan	71,152	75,109	138,798			101,669
India	79,477,324	87,235,122	102,246,436	58,723,101	62,701,418	63,810,006
Maldives	n.a.	21,537	35,433	n.a.	21,527	35,411
Nepal	...	1,945,706	2,457,464	...	1,001,989	2,457,464
Sri Lanka	1,430,988[b]	502,512	325,007	...	...	...
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	...	...	...	...	...	...
Indonesia	42,304,811	45,130,019	61,897,329	...	17,350,334	22,485,550
Lao PDR	...	...	69,757	...	...	46,390
Malaysia	13,553,460	14,061,473	16,071,330	8,186,427	9,305,218	9,625,602
Philippines	22,138,129	24,222,388	24,810,874	20,663,028	23,222,797	24,674,465
Singapore	2,591,238	2,433,326	2,506,121	...	...	...
Thailand	11,124,159	11,012,215	10,632,258	11,124,159	11,012,215	10,632,258
Timor-Leste	56,500	13,441	23,000	...	641	7,778
Viet Nam	57,956,898	64,492,420	65,659,066	57,752,307	23,558,427	62,518,269

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Active taxpayers are those who have a tax obligation in a fiscal year or who for any other purpose interact with the revenue body.

[b] Data sourced from revenue body's annual performance report.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Sri Lanka Inland Revenue annual report, 2019; TADAT Performance Assessment Report, Bhutan, October 2022.

Table A.34: Registered Taxpayers—Employer Income Tax Withholdings, FYs 2019–2021

Region/Economy	Total Registered Employers (no. at end-FY)			Active Registered Employers (no. at end-FY)		
	FY2019	FY2020	FY2021	FY2019	FY 2020	FY 2021
Central and West Asia						
Armenia	58,945	66,946	71,921	34,452	40,043	47,058
Azerbaijan	74,769	...	...	59,379	...	...
Georgia	743,853	812,829	828,674	173,898	177,069	133,020
Kazakhstan	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...
Pakistan	...	154,626	150,916	...	58,366	90,002
Tajikistan	30,929	39,216	41,509	29,382	31,208	39,724
Uzbekistan	386,325	826,728	802,854	355,252	493,937	456,607
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	3,532,000	3,543,000	3,544,000	...	...	3,544,000
Korea, Rep. of	...	...	...	...	...	...
Mongolia	180,486	189,685	206,908	28,301	86,776	51,126
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	1,646,059	1,712,457	1,768,370	1,172,049	1,210,137	1,261,488
Cook Islands	2,089	1,436	1,520	1,347	845	889
Fiji	9,639	7,925	7,950	8,015	7,925	7,950
Nauru	151	152	149	141	145	140
New Zealand	223,590	223,299	213,734	214,753	205,862	193,083
Palau	...	4,373	1,376	...	3,605	1,376
Papua New Guinea	18,200	20,932	21,854	12,000	14,569	15,461
Samoa	2,114	2,197	...	2,114	1,935	2,019
Solomon Islands	2,159	2,840	3,173	1,200	1,380	2,777
Tonga	1,537	1,520	...	1,537	1,520	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia						
Bangladesh	82,456	...	...	79,865	...	...
Bhutan	...	...	60,693	...	...	3,174
India	681,261	663,878	636,118	...	661,271	633,942
Maldives	n.a.[b]	531	544	n.a.[b]	531	540
Nepal	...	5,106	...	...	5,103	...
Sri Lanka	35,448[b]	34,911[b]	34,985	...	...	...
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	...	...	...	...	...	...
Indonesia	3,556,634	3,945,156	...	566,930	571,957	...
Lao PDR	...	12,410	505	...	12,004	505
Malaysia	1,134,315	1,219,160	1,303,722	809,086	960,261	1,028,672
Philippines	478,567	723,635	477,321	477,266	496,884	468,744
Singapore	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Thailand	...	...	...	207,439	216,348	187,384
Timor-Leste	...	6,758	38,000	...	3,012	11,698
Viet Nam	1,142,863	1,253,676	1,377,884	739,755	772,884	791,702

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Active taxpayers are those who have a tax obligation in a fiscal year or who for any other purpose interact with the revenue body.

[b] Maldives: Income tax, including employer withholdings, commenced in FY2020.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Indonesia's General Directorate of Taxes annual report, 2019; Sri Lanka Inland Revenue annual reports, 2018 and 2019.

Table A.35: Registered Taxpayers—Value-Added Tax, FYs 2019–2021

Region/Economy	Total Registered Taxpayers (no. at end-FY)			Active Registered Taxpayers[a] (no. at end-FY)		
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	18,196	18,651	20,767	9,785	10,784	12,743
Azerbaijan	43,579	48,611	56,132	24,822	28,963	34,494
Georgia	134,138	145,784	153,779	71,669	98,433	86,877
Kazakhstan	98,208	120,540	...	...	...	...
Kyrgyz Republic	10,456	10,132	...	9,847	10,132	...
Pakistan	228,464	265,011	300,294	149,418	160,784	243,007
Tajikistan	4,828	4,045	4,593	4,328	3,832	4,313
Uzbekistan	86,198	115,662	153,861	81,301	115,087	143,701
East Asia						
China, People's Rep. of	62,177,487	69,038,981	75,967,220	55,194,001	63,967,817	70,625,483
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	3,377,000	3,404,000	3,399,000	3,377,000	3,404,000	3,177,000
Korea, Rep. of	7,001,193	7,407,137	7,934,527	6,753,201	7,108,952	7,464,102
Mongolia	36,653	39,712	42,305	27,181	27,039	37,904
Taipei,China	1,572,337	1,616,266	1,667,484	1,426,725	1,513,646	1,563,581
Pacific						
Australia	2,680,991	2,760,678	2,853,217	2,009,357	2,060,190	2,144,094
Cook Islands	2,812	1,652	1,743	1,584	983	1,020
Fiji	34,621	17,089	19,428	16,835	17,089	19,428
Nauru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	665,981	668,900	639,523	649,080	628,085	608,996
Palau	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Papua New Guinea	40,000	22,021	32,257	20,000	16,823	18,261
Samoa	1,176	1,197	...	1,176	644	1,099
Solomon Islands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tonga	661	666	...	657	666	...
Vanuatu	...	2,179	1,854	...	1,349	1,850
South Asia						
Bangladesh	356,623	187,931	245,602	323,675	187,931	245,602
Bhutan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
India	...	...	12,796,716	...	...	12,796,716
Maldives	18,883	20,042	21,555	14,098	14,886	15,435
Nepal	...	303,194	341,465	...	227,496	260,338
Sri Lanka	28,914[b]	8,152	9,316	...	...	...
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	...	5,159[b]	6,404[b]	...	4,915[b]	5,119[b]
Indonesia	...	691,196	721,176	...	409,019	699,541
Lao PDR	...	11,729	25,537	...	5,632	17,432
Malaysia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	570,312	781,152	489,605	568,352	590,455	482,756
Singapore	100,243	101,293	101,879	...	...	...
Thailand	1,244,776	1,305,667	1,409,378	620,720	637,009	777,871
Timor-Leste	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Viet Nam	7,130,212	7,582,535	7,826,959	2,897,329	2,981,971	2,838,533

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Active taxpayers are those who have a tax obligation in a fiscal year or who for any other purpose engage with the revenue body.

[b] Cambodia: Data reported refer only to large taxpayers.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Sri Lanka Inland Revenue annual reports.

<p style="text-align:center">Table A.36: Registered Taxpayers—Excise (domestic producers),ᵃ **FYs 2019–2021**</p>

	Total Registered Producers (no. at end of FY)			Active Registered Producersᵇ (no. at end of FY)		
Region/Economy	FY2019	FY 2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...
Georgia	2,125	1,028	1,097	2,012	1,028	1,097
Kazakhstan	...	46,446	...	...	41,275	...
Kyrgyz Republic	...	46	...	...	46	...
Pakistan	580	655	...ᶜ	580	279	...ᶜ
Tajikistan	213	144	146	1,34	127	137
Uzbekistan	3,839	121	4,433	3,602	113	4,345
East Asia						
China, People's Rep. of	257,526	304,520	344,817	211,828	264,196	305,914
Hong Kong, China	0	0	0	0	0	0
Japan	...	...	...	...	...	...
Korea, Rep. of	2,571	2,941	3,185	2,571	2,941	3,185
Mongolia	52	56	64	39	41	39
Taipei,China	1,105	1,107	1,151	1,105	1,107	1,151
Pacific						
Australia	3,184	3,418	3,719	2,599	2,853	3,126
Cook Islands	0	0	0	0	0	0
Fiji	7	...	...	7	...	...
Nauru	0	0	0	0	0	0
New Zealand	0	0	0	0	0	0
Palau	0	0	0	0	0	0
Papua New Guinea	0	0	0	0	0	0
Samoa	16	...	...	16	...	...
Solomon Islands	0	0	0	0	0	0
Tonga	21	21		21	21	
Vanuatu	...	1	...	...	1	...
South Asia						
Bangladesh	92,345	...		81,253	...	
Bhutan	1	1	1	1	1	1
India	...	...	...	...	...	...
Maldives	0	0	0	0	0	0
Nepal	...	2,056	1,836	...	1,841	1,836
Sri Lanka	0	0	0	0	0	0
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	0	148	78	0	143	65
Indonesia	0	0	0	0	0	0
Lao PDR	...	103	8,942	...	100	6,481
Malaysia	0	0	0	0	0	0
Philippines	7,618	9,635	8,492	7,618	8,115	8,273
Singapore	0	0	0	0	0	0
Thailand	0	0	0	0	0	0
Timor-Leste	0	0	0	0	0	0
Viet Nam	31,716	31,902	32,118	16,686	15,175	19,832

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

ᵃ Many revenue bodies did not report on excises as these are administered by a separate body, generally the customs administration.
ᵇ Active taxpayers are those who have a tax obligation during a fiscal year or who for any other purpose interact with revenue body.
ᶜ Pakistan: Excise registrants included under value-added tax registrations.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.37: Registered Taxpayers—% Change in Numbers Registered (by tax type), FYs 2019–2021

| Region/Economy | % Change in Numbers of Registered Taxpayers | | | | | |
| | Corporate Income Tax | | Personal Income Tax | | Value-Added Tax | |
	FY2021/FY2020	FY2021/FY2019	FY2021/FY2020	FY2021/FY2019	FY2021/FY2020	FY2021/FY2019
Central and West Asia						
Armenia	0.1	−25.7	3.7	7.3	11.3	14.1
Azerbaijan	...	...	...	...	15.5	28.8
Georgia	6.9	10.1	2.3	...	5.5	14.6
Kazakhstan	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...
Pakistan	218.1	243.2	0.0	31.4	2083.7	2433.0
Tajikistan	13.5	−8.1	26.1	18.9	13.5	−4.9
Uzbekistan	33.1	199.9	2.6	0.0	33.0	78.5
East Asia						
China, People's Rep. of	13.6	28.1	...	...	10.0	22.2
Hong Kong, China	−0.1	0.7	−4.5	−5.5	n.a.	n.a.
Japan	1.7	2.8	...	...	−0.1	0.7
Korea, Rep. of	8.8	18.2	16.6	19.2	7.1	13.3
Mongolia	7.1	33.0	168.6	93.9	6.5	15.4
Taipei,China	3.3	6.1	−1.2	1.1	3.2	6.1
Pacific						
Australia	3.6	6.8	0.9	4.5	3.4	6.4
Cook Islands	5.8	−15.0	2.0	−12.2	5.5	−38.0
Fiji	15.4	54.0	36.7	33.8	13.7	−43.9
Nauru	−2.7	−2.7	...	...	n.a.	n.a.
New Zealand	−43.1[a]	−41.6[a]	2.6	2.3	−4.4	−4.0
Palau	...	...	...	...	n.a.	n.a.
Papua New Guinea	6.7	76.7	125.7	292.1	46.5	−19.4
Samoa	...	...	...	...	...	...
Solomon Islands	19.8	86.6	3.8	−13.2	n.a.	n.a.
Tonga	...	...	...	...	...	...
Vanuatu	...	...	...	...	−14.9	...
South Asia						
Bangladesh					30.7	−31.1
Bhutan	73.3	−38.9	84.8	95.1	n.a.	n.a.
India	26.9	37.0	17.2	28.6	...	...
Maldives	13.3	−66.0	64.5	...	7.5	14.2
Nepal	17.7	...	26.3	...	12.6	...
Sri Lanka	12.0	20.5	−35.3	−77.3	14.3	...
Southeast Asia						
Brunei Darussalam	−12.5	...	...	...	...	...
Cambodia	20.8	...	...	...	...	...
Indonesia	8.6	16.4	37.2	46.3	4.3	
Lao PDR	670.3	...	...	...	117.7	...
Malaysia	4.5	4.5	14.3	18.6	n.a.	n.a.
Philippines	−30.9	−40.7	2.4	12.1	−37.3	−14.2
Singapore	0.0	11.9	3.0	−3.3	0.6	0.6
Thailand	−7.8	−23.7	−3.5	−4.4	7.9	13.2
Timor-Leste	88.5	55.7	71.1	−59.3	n.a.	n.a.
Viet Nam	7.2	16.9	1.8	13.3	3.2	9.8

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] New Zealand's revenue body advised that the reduction owes to a change in the methodology applied for counting taxpayers—corporate taxpayers previously included trusts, whereas now trusts are included under individuals.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.38: Return Filing—Corporate Income Tax, FYs 2019–2021

Region/Economy	Total Returns Filed during Fiscal Year[a]			Total Returns Filed on Time during Fiscal Year[b]		
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	85,982	73,540	76,478	83,465	69,698	71,725
Azerbaijan	26,215	68,846	79.052	26,215	...	...
Georgia	750,320	785,720	879,242	693,256	673,245	737,620
Kazakhstan	257,334	...	...	261,258		
Kyrgyz Republic	48,649	278,779	52,062	48,649	...	...
Pakistan	47,366	55,822	227,090	104,879	...	...
Tajikistan	4,835	3,832	4,313	4,835	3,832	4,313
Uzbekistan	51,103	106,070	143,701	46,752	108,305	142,063
East Asia						
China, People's Rep. of	23,081,707	26,868,045	32,260,968	22,924,492	25,977,451	29,192,744
Hong Kong, China	497,771	497,778	504,052	362,867	375,481	369,382
Japan	2,929,000[c]	2,949,000[c]	3,010,000[c]	...	...	
Korea, Rep. of	787,788	849,782	912,699	...	...	...
Mongolia	111,947	132,960	258,334	108,323	119,806	129,167
Taipei,China	...	...	...	961,241	992,786	1,026,434[d]
Pacific						
Australia	1,085,293	...	1,221,674	...	...	...
Cook Islands	764	772	809	174	205	204
Fiji	3,724	3,457	5,395	2,074	3,457	2,112
Nauru	44	142	31	111	111	113
New Zealand	374,058	413,783	397,602	710,593	710,784	384,205
Palau	n.a.	n.a.	4,394	n.a.	n.a.	4,394
Papua New Guinea	9,000	...		10,500	8,606	3,798
Samoa	...	297	....	497	...	...
Solomon Islands	12,300	12,767	9,868	2,326	...	2,040
Tonga	1,011	...	...	9,702	495	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia						
Bangladesh	27,680	25,250		27,680	24,309	
Bhutan	...	417	502	404	226	243
India	843,522	836,469	4,107,969	753,226	783,284	896,883
Maldives	10,902	14,901	10,122	6,973	6,022	6,152
Nepal	...	148,169	1,007,002	...	104,021	756,555
Sri Lanka	...	4,899	8,200	...	3,134	8,200
Southeast Asia						
Brunei Darussalam	...	4,662	7,748	...	1,316	1,364
Cambodia	...	4,838	...	...	4,814	5,093
Indonesia	963,814[e]	891,877[e]	1,012,302[e]	...[e]	...	804,772
Lao PDR	...	16,694	...	...	16,694	...
Malaysia	377,772	303,871	403,572	399,866	290,601	391,966
Philippines	105,201	246,366	258,672	114,618	244,885	206,153
Singapore	189,607	199,277	197,645	185,375	194,606	201,170
Thailand	5,920,140	6,328,009	653,054	...	572,175	506,346
Timor-Leste	8,296	3,083	13,211	8,296	3,083	13,211
Viet Nam	991,168	1,081,218	961,484	688,074	717,460	827,295

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Total returns received sourced from ISORA Form G.

[b] Total number of returns filed on time sourced from ISORA Form F.

[c] Japan: Data sourced from annual report and the number of fiscal year returns received from 1 April to 31 July of subsequent year.

[d] Indonesia: Data obtained from revenue body's annual report, 2021 (page 193).

[e] Taipei,China: Revenue body advised that it only records data on volumes of returns (by tax type) filed on time.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.39: Return Filing—Personal Income Tax, FYs 2019–2021

Region/Economy	Total Returns Filed during Fiscal Year[a]			Total Returns Filed on Time during Fiscal Year[b]		
	FY2019	FY2020	FY2021	FY2019	FY 2020	FY2021
Central and West Asia						
Armenia	80,598	45,176	35,028	56,947	8,999	9,130
Azerbaijan	69,989	113,800	123,991	69,689	...	...
Georgia	1,724,593	1,763,012	1,979,281	519,219	894,592	613,571
Kazakhstan	100,242	...	4,298,700	...	...	...
Kyrgyz Republic	241,557	240,857	486,409	241,557	...	...
Pakistan	2,684,274	3,016,930	5,559,947	2,356,782	...	...
Tajikistan	16,862	15,290	19,276	16,862	15,290	19,670
Uzbekistan	355,252	364,781	506,575	595,582	491,284	506,575
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	3,021,466	3,052,309	2,968,063	2,361,122	2,460,673	2,300,197
Japan	22,218,000[c]	22,041,000[c]	22,850,000[c]	...	...	
Korea, Rep. of	8,094,000	...	10,858,000	7,373,000	...	9,208,000
Mongolia	91,082	84,116	512,504	84,889	43,544	256,252
Taipei,China	...[d]	...[d]	...[d]	6,757,102	6,915,327	6,831,801
Pacific						
Australia	15,349,796	...	16,300,998	...	...	...
Cook Islands	7,167	7,216	9,419	3,269	3,641	4,375
Fiji	11,647	19,188	78,613	9,795	19,187	2,266
Nauru	...	...	31	...	...	...
New Zealand	4,093,127	4,172,424	4,602,583	1,053,295[e]	1,052,237[e]	1,326,883[e]
Palau	...	...	0	...	...	0
Papua New Guinea	138,412	...	...	138,412	91,787	55,360
Samoa	...	...	...	...	...	...
Solomon Islands	4,025	8,500	6,400	1,800	1,750	1,800
Tonga	1,708	...	...	1,709	6,392	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia						
Bangladesh	1,890,175	2,089,135		1,890,175	1,827,006	
Bhutan	127,795	65,525	101,669	61,985	64,075	88,815
India	62,346,872	63,973,630	63,810,006	56,201,805	59,624,124	55,027,840
Maldives	n.a.	n.a.	3,214	n.a.	n.a.	2,348
Nepal	...	550,949	...	...	484,002	1,421
Sri Lanka	...	22,712	18,308	...	8,731	4,870
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	...	...	...	...	...	...
Indonesia	12,430,688[f]	13,863,378[f]	14,964,085[f]	10,547,303	9,869,767	10,484,479
Lao PDR	...	...	...	...	...	...
Malaysia	3,710,425	3,751,650	3,880,627	4,275,492	4,143,735	4,274,509
Philippines	60,734	1,047,294	1,113,557	991,343	1,030,119	924,415
Singapore	2,213,000	1,859,665	1,962,704	2,332,197	2,400,038	2,464,533
Thailand	11,838,170	6,270,291	4,822,437	...	...	11,289,320
Timor-Leste	55,979	641	7,778	55,797	641	7,778
Viet Nam	780,079	1,168,243	...	31,727	559,108	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Total number of returns received sourced from ISORA Form G.
[b] Total number of returns filed on time sourced from ISORA Form F.
[c] Japan: Data reported are the number of fiscal year returns received from 1 January to 30 April of subsequent year.
[d] Taipei,China: Revenue body only records data on volumes of returns (by tax type) filed on time.
[e] New Zealand: Volume reported by revenue body in ISORA excludes number of prefilled tax returns.
[f] Indonesia: Data obtained from revenue body's annual report, 2021 (page 193).

Table A.40: Return Filing—Value-Added Tax, FYs 2019–2021

Region/Economy	Total Returns Filed during Fiscal Year[a]			Total Returns Filed on Time during Fiscal Year[b]		
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	162,600	174,661	191,558	154,079	166,750	178,848
Azerbaijan	232,986	...	484,736	232,986	...	...
Georgia	736,326	760,186	872,541	707,645	724,298	749,288
Kazakhstan	588,905	...		596,955	...	
Kyrgyz Republic	60,973	...	...	34,974	...	...
Pakistan	...	160,784	243,007	140,249	...	...
Tajikistan	52,116	45,984	51,756	52,116	45,984	51,756
Uzbekistan	84,976	114,295	143,701	83,004	112,325	142,548
East Asia						
China, People's Rep. of	333,828,765	329,038,818	367,080,535	330,182,109	319,955,194	358,855,034
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	3,177,000[c]	3,152,000[c]	3,177,000[c]	...	...	
Korea, Rep. of	6,753,201	7,108,952	...	...	...	...
Mongolia	39,308	33,583	67,520	29,194	33,583	33,760
Taipei,China	...[d]	...[d]	...[d]	5,858,125	5,998,622	6,216,396
Pacific						
Australia	10,866,392	...	11,429,640	...	...	...
Cook Islands	11,199	11,267	11,851	8,093	8,518	9,119
Fiji	43,308	65,907	24,228	51,364	50,826	9,325
Nauru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	2,985,024	3,036,153	3,126,933	2,832,962	2,846,302	2,902,348
Palau	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Papua New Guinea	131,783	...	...	131,783	134,391	45,973
Samoa	...	2,702	...	3,217	2,702	2,843
Solomon Islands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tonga	7,329	...	...	7,372	7,381	...
Vanuatu	...	12,990	1,367	....	13,728	1,367
South Asia						
Bangladesh	90,420	92,409		90,420	92,409	
Bhutan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
India	...	...	109,992,106	...	...	61,323,805
Maldives	61,759	68,388	67,706	38,555	49,091	48,907
Nepal	...	2,255,756	2,802,904	...	1,063,282	2,582,497
Sri Lanka	...	99,806	22,866	...	61,404	22,866
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	...	58,205	...	...	52,958	...
Indonesia	4,701,579	4,760,700	...	3,927,506	3,920,726	...
Lao PDR	...	119,003	...	...	119,003	...
Malaysia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	1,111,429	3,380,869	3,581,354	3,097,097	3,226,892	2,014,759
Singapore	407,858	414,892	420,896	370,411	369,997	381,557
Thailand	7,670,424	7,991,714	7,948,119	...	2,838,110	7,061,270
Timor-Leste	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Viet Nam	4,981,215	5,095060	4,528,506	3,636,944	3,871,135	4,171,097

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Volume of total returns received sourced from ISORA Form G.

[b] Total number of returns filed on time sourced from ISORA Form F.

[c] Japan: Data sourced from annual report and the number of VAT returns received between 1 April and 31 March of subsequent year.

[d] Taipei,China: Revenue body advised that it only records data on volumes of returns (by tax type) filed on time.

Source: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.41: Return Filing—% Change in Total Returns Filed (by tax type), **FYs 2019–2021**

| Region/Economy | % Change in Total Number of Returns Filed | | | | | |
| | Corporate Income Tax | | Personal Income Tax | | Value-Added Tax | |
	FY2021/FY2020	FY2021/FY2019	FY2021/FY2020	FY2021/FY2019	FY2021/FY2020	FY2021/FY2019
Central and West Asia						
Armenia	4.0	−11.1	−22.5	−56.5	9.7	17.8
Azerbaijan	14.8	201.6	9.0	77.2	...	108.1
Georgia	11.9	17.2	12.3	14.8	14.8	18.5
Kazakhstan	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...
Pakistan	...	...	...	...	...	...
Tajikistan	12.6	−10.8	26.1	14.3	12.6	−0.7
Uzbekistan	35.5	181.2	1,890.6	1,944.0	25.7	69.1
East Asia						
China, People's Rep. of	20.1	39.8	...	...	11.6	10.0
Hong Kong, China	1.3	1.3	−2.8	−1.8	n.a.	n.a.
Japan	2.1	2.8	3.7	2.8	0.8	0.0
Korea, Rep. of	7.4	15.9		34.1	...	...
Mongolia	94.3	130.8	509.3	462.7	101.1	71.8
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	...	12.6	...	6.2	...	5.2
Cook Islands	4.8	5.9	30.5	31.4	5.2	5.8
Fiji	56.1	44.9	309.7	575.0	−63.2	−44.1
Nauru	...	...	...	...	n.a.	n.a.
New Zealand	−3.9	6.3	10.3	12.4	2.9	4.7
Palau	...	...	...	...	n.a.	n.a.
Papua New Guinea	...	...	...	...	...	...
Samoa	...	...	...	...	...	...
Solomon Islands	−22.7	−19.8	−24.7	59.0	n.a.	n.a.
Tonga	...	...	...	...	...	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	−89.5	...
South Asia						
Bangladesh	...	...	...	...	...	...
Bhutan	20.4	...	...	...	n.a.	n.a.
India	391.1	387.0	−0.3	2.3	...	...
Maldives	−32.1	−7.2	n.a.	n.a.	−1.0	9.6
Nepal	579.6	...	...	...	24.3	
Sri Lanka	67.4	...	−19.4	...	−77.1	...
Southeast Asia						
Brunei Darussalam	66.2	...	n.a.	n.a.	n.a.	n.a.
Cambodia	...	...	...	...	...	...
Indonesia	13.5	5.0	7.9	20.4	...	...
Lao PDR	...	...	...	...	...	...
Malaysia	32.8	6.8	3.4	4.6	n.a.	n.a.
Philippines	5.0	145.9	6.3	1,733.5	5.9	222.2
Singapore	−0.8	4.2	5.5	−11.3	1.4	3.2
Thailand	−89.7	−89.0	−15.9	−55.5	−0.5	3.6
Timor-Leste	328.5	59.2	1,113.4	−86.1	n.a.	n.a.
Viet Nam	−11.1	−3.0	...	...	−11.1	−9.1

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.42: Personal Income Tax—Features of Tax System and Their Usage, FYs 2019–2021

Region/Economy	Obligations on Most Employees if EWT Applies		Total Registered Taxpayers (as % of labor force)			Total Number of Returns Filed (as % of labor force)		
	Must Register	Must File Tax Returns	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	X	X	55.4	62.1	64.4	6.2	3.8	59.0
Azerbaijan	X	X	1.6	...	...	1.4	2.3	2.3
Georgia	X	X	...	186.5	241.7	78.4	92.8	132.0
Kazakhstan	✓	X	16.8	48.2	39.0	1.1	...	46.2
Kyrgyz Republic	X	X	...	2.7	...	9.3	9.6	...
Pakistan	✓	✓	7.1	9.6	10.5	3.6	4.2	8.4
Tajikistan	✓	✓	0.7	0.7	0.8	0.7	0.6	0.8
Uzbekistan	X	X	30.7	33.5	34.6	2.3	2.7	...
East Asia								
China, People's Rep. of	✓	X	...	...	...	...	...	...
Hong Kong, China	n.a.	n.a.	99.0	97.9	96.0	77.5	78.3	78.1
Japan	X	X	...	...	...	32.4	32.1	33.3
Korea, Rep. of	✓	✓	27.2	27.7	32.1	28.8	...	38.2
Mongolia	✓	✓	14.9	10.7	28.8	7.0	6.5	39.4
Taipei,China	X	✓	55.4	56.2	57.4	55.4[a]	56.9[a]	57.4[a]
Pacific								
Australia	✓	✓	235.6	244.0	239.1	114.6	...	118.1
Cook Islands	✓	✓	...	...	...	...	90.2	...
Fiji	X	X	20.2	19.7	26.3	3.2	5.3	21.2
Nauru	✓	X	...	...	...	...	...	...
New Zealand	✓	✓	267.3	256.9	254.6	156.8	149.0	158.7
Palau	X	X	...	...	...	...	...	...
Papua New Guinea	X	X	1.1	2.0	4.3	5.1	...	...
Samoa	X	X	...	...	...	...	...	...
Solomon Islands	X	X	1.9	1.6	...	1.2	2.5	...
Tonga	✓	✓	...	73.9	...	...	...	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia								
Bangladesh			5.5	7.3	...	2.7	3.1	0.0
Bhutan	✓	✓	18.7	20.9	40.8	...	...	29.9
India	✓	✓	16.1	19.1	21.4	12.6	14.0	13.4
Maldives	X	X	...	9.0	15.4	...	2.3	1.4
Nepal	✓	✓	...	12.2	14.5	...	3.4	...
Sri Lanka	X	✓	16.4	6.4	3.8	...	0.3	0.2
Southeast Asia								
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	X	X	...	...	...	...	...	...
Indonesia	✓	✓	31.4	33.1	45.6	9.2	10.1	11.0
Lao PDR	✓	X	...	...	...	...	...	...
Malaysia	✓	✓	86.3	87.3	101.7	23.6	23.3	24.6
Philippines	✓	✓	49.4	57.7	58.4	0.1	2.5	2.6
Singapore	n.a.	n.a.	72.0	69.5	69.6	61.5	53.1	54.5
Thailand	X	✓	28.5	28.2	27.8	30.4	16.1	12.6
Timor-Leste	✓	✓	10.3	2.4	4.0	10.2	0.1	1.4
Viet Nam	✓	X	103.9	115.4	120.0	1.4	2.1	...

... = no data at cut-off date, ✓ = relevant, X = not relevant, EWT = employer withholding tax, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Taipei,China: Revenue body only records data on volumes of returns (by tax type) filed on time.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.43: VAT Refunds—Administrative Policy and Value of Refunds, FYs 2020 and 2021

Region/Economy	Administrative Policy for Payment of Approved VAT Refunds in FY2021[a]	Approved Refunds at Year End (million, in local currency)		VAT Refunds (% of gross VAT revenue)	
		FY2020	FY2021	FY2020	FY2021
Central and West Asia					
Armenia	Paid out automatically	...	...	20.3	20.9
Azerbaijan	Paid out automatically	...	...	...	1.3
Georgia	Paid out automatically	...	...	21.2	30.5
Kazakhstan	Account credited; paid after legal request			26.5	0.0
Kyrgyz Republic	Account credited; paid after legal request where funded	1,790	744	1.0	0.8
Pakistan	Paid out automatically	...	...	5.5	9.5
Tajikistan	Account credited; paid after legal request	18	...	...	0.3
Uzbekistan	Account credited; paid after legal request	...	...	22.5	27.3
East Asia					
China, People's Rep. of	Credited to account; paid after legal request	...	...	...	...
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	Paid out automatically	...	...	29.4	27.6
Korea, Rep. of	Paid out automatically (following review)	...	...	...	...
Mongolia	Account credited; paid after legal request	...	...	2.0	0.4
Taipei,China	Paid out automatically, subject to funds	...	...	37.9	39.4
Pacific					
Australia	Paid out automatically	...	...	56.1	51.4
Cook Islands	Paid out automatically, subject to funds	...	1,654[b]	13.8	18.9
Fiji	Paid out automatically, subject to funds	140	88	32.3	29.9
Nauru	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	Paid out automatically	...	...	31.7	28.6
Palau	n.a.	n.a.	n.a.	n.a.	n.a.
Papua New Guinea	Account credited; paid after legal request	228	330	9.9	3.6
Samoa	Account credited; paid after legal request where funded	...	...	...	...
Solomon Islands	n.a.	n.a.	n.a.	n.a.	n.a.
Tonga	Account credited; paid after legal request	11	...	6.9	...
Vanuatu	Paid out automatically	...	...	0.1	...
South Asia					
Bangladesh	Paid out automatically, subject to funds	...	0	...	0.9
Bhutan	n.a.	0	0	n.a.	n.a.
India	Paid out automatically	...	...	...	16.1
Maldives	Account credited; paid after legal request	...	677[c]	...	...
Nepal	Account credited; paid after legal request	...	0	16.6	...
Sri Lanka	Account credited; paid after legal request	...	...	0.7	0.2
Southeast Asia					
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	Account credited; paid after legal request	158,000	214,210	2.3	4.1
Indonesia	Paid out automatically	...	...	20.7	19.3
Lao PDR	Account credited; paid after legal request	...	189,000	0.2	2.6
Malaysia	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	No refunds—excess credits must be carried forward	0	0	0.0	0.0
Singapore	Paid out automatically	...	...	47.5	47.7
Thailand	Account credited; paid after legal request	120,737	88,855	32.8	27.3
Timor-Leste	n.a.	n.a.	n.a.	n.a.	n.a.
Viet Nam	Account credited; paid after legal request	...	...	...	39.2

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, VAT = value-added tax.

[a] Paid out automatically = refunds are paid out (or offset against tax debts) immediately or within a short time frame.
[b] Amount expressed in 000s.
[c] Maldives: Taxpayers have to request refund—the reported amount is the stock of credits, not total approved refunds.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.44: Aggregate Tax Arrears, FYs 2018–2021

Region/Economy	Total Stock of Tax Arrears at Year End (million, in local currency)				% Change, Tax Arrears		
	FY2018	FY2019	FY2020	FY2021	FY2020 to FY2019	FY2021 to FY2020	FY2021 to FY2019
Central and West Asia							
Armenia	285,843	278,870	305,610	313,286	9.6	2.5	12.3
Azerbaijan	1,070	1,166	1,507	2,138	29.2	41.9	83.4
Georgia	3,847	4,393	3,970	4,811	−9.6	21.2	9.5
Kazakhstan	389,910	333,108	301,552	…	−9.5	…	…
Kyrgyz Republic	…	…	64,742	251,975	…	290.0	…
Pakistan	…	…	1,545,861	1,596,392	…	3.3	…
Tajikistan	771	726	884	806	21.8	−8.8	11.0
Uzbekistan	3,045,300	2,384,800	4,428,086	7,506,741	85.7	69.5	214.8
East Asia							
China, People's Rep. of	…	…	…	…	…	…	…
Hong Kong, China	39,690	45,512	49,314	50,245	8.4	1.9	10.4
Japan	853,060	811,788	755,411	828,620	−6.9	9.7	2.1
Korea, Rep. of	16,787,184	17,721,573	16,586,668	17,612,549	−6.4	6.2	−0.6
Mongolia	1,902,397	1,860,375	1,807,860	2,167,801	−2.8	19.9	16.5
Taipei,China	126,296	130,137	130,382	135,994	0.2	4.3	4.5
Pacific							
Australia	40,400	45,398	53,427	59,036	17.7	10.5	30.0
Cook Islands	42	29	29	36	0.0	24.1	24.1
Fiji	227	253	198	191	−21.7	−3.5	−24.5
Nauru	<1	<1	7	…	600.0	…	…
New Zealand	3,117	3,521	4,247	4,384	20.6	3.2	24.5
Palau	…	…	17	1	…	−94.1	…
Papua New Guinea	…	15,321	…	…	…	…	…
Samoa	…	…	…	65	…	…	…
Solomon Islands	…	…	22	3	…	−86.4	…
Tonga	127	100	91	13	−9.0	−85.7	−87.0
Vanuatu	…	…	10	7	…	−30.0	…
South Asia							
Bangladesh	559,001	443,221	678,622	…	53.1	…	…
Bhutan	…	…	…	…	…	…	…
India	…	10,268,068	15,989,119	17,075,681	55.7	6.8	66.3
Maldives	12,178[a]	17,698[a]	20,400[a]	15,557[a]	15.3	−23.7	−12.1
Nepal	146,210[b]	…	103,678	171,395[b]	…	65.3	…
Sri Lanka	…	…	697,716	619,726	…	−11.2	…
Southeast Asia							
Brunei Darussalam	…	…	14	15	…	7.1	…
Cambodia	…	…	…	…	…	…	…
Indonesia	68,090,741	72,630,640[b]	69,891,089	66,552,093	−3.8	−4.8	−8.4
Lao PDR	118,631		219,137	189,000	…	−13.8	…
Malaysia	10,779	10,721	11,259	10,731	5.0	−4.7	0.1
Philippines	362,460	297,890	414,000	421,203	39.0	1.7	41.4
Singapore	572	735	752	771	2.3	2.5	4.9
Thailand	334,453	359,600	402,508	478,282	11.9	18.8	33.0
Timor-Leste	…	…	…	…	…	…	…
Viet Nam	79,611,787	86,378,045	83,026,946	115,013,709	−3.9	38.5	33.2

… = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Maldives: Aggregate arrears for all years include a large amount of arrears owing to unpaid tourism land rent not reported in prior ISORAs.

[b] Nepal: Tax arrears sourced from Tax Administration Diagnostic Assessment Tool performance assessment report as revenue body incorrectly reported 'collectible arrears.'

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022; Indonesia's General Directorate of Taxes annual report, 2019; Nepal Inland Revenue TADAT Performance Assessment Report, February 2023.

Table A.45: Aggregate Tax Arrears Deemed Uncollectible, FYs 2018–2021

| Region/Economy | Total Tax Arrears at Year End Considered Uncollectible (million, in local currency) | | | | % Change | |
	FY2018	FY2019	FY2020	FY2021	End FY2020 to End FY2019	End FY2021 to End FY2020
Central and West Asia						
Armenia	245,673	245,903	250,018	249,121	1.7	−0.4
Azerbaijan	803	942	1,231	1,744	30.7	41.7
Georgia	3,116	3,444	2,950	3.539	−14.3	−99.9
Kazakhstan	...	...	277,881			
Kyrgyz Republic	634	3,764	42,004	19,521	1015.9	−53.5
Pakistan	...	...	72,746	...	...	...
Tajikistan	771	726	580	590	−20.1	1.7
Uzbekistan	834,200	1,285,600	2,590,821	4,451,520	101.5	71.8
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	18,717	19,752	17,325	16,314	−12.3	−5.8
Japan	...	...	...	60,377	...	...
Korea, Rep. of	7,647,755	8,437,146	7,058,258	6,158,902	−16.3	−12.7
Mongolia	199,261	186,495	330,879	631,023	77.4	90.7
Taipei,China	953	1,443	2,231	699	54.6	−68.7
Pacific						
Australia	16,680	18,900	19,248	20,540	1.8	6.7
Cook Islands	...	...	...	0	...	...
Fiji	16	27	28	28	3.7	0.0
Nauru	...	...	...	...	...	...
New Zealand	1,130	294	434	905	−45.3	108.5
Palau	...	...	1[a]	59[a]	...	5,800.0
Papua New Guinea	...	13,957	...	...	...	..
Samoa	...	...	...	6	...	...
Solomon Islands	...	...	<1	<1	...	0.0
Tonga	92	61	31	120[b]	−49.2	−98.7
Vanuatu	...	...	5	7	...	40.0
South Asia						
Bangladesh	45,955		...	...		
Bhutan	...	...	...	...	...	...
India	...	...	...	...	...	...
Maldives	...	...	4,291	6,715	...	56.5
Nepal	...	...	61,406	131,989[b]	...	114.9
Sri Lanka	...	...	267,476	460,101	...	72.0
Southeast Asia						
Brunei Darussalam	...	...	2	2	...	0.0
Cambodia	...	...	...	...	...	...
Indonesia	41,098,668	44,894,690	31,187,214	37,247,066	−30.5	19.4
Lao PDR	118,631	30,912	...	...	...	...
Malaysia	984	591	35	198	−94.1	465.7
Philippines	245,020	209,360	274,000	90,768	30.9	−66.9
Singapore	...	...	...	...	...	...
Thailand	115,589	156,900	220,422	213,763	40.5	−3.0
Timor-Leste	...	...	...	...	...	...
Viet Nam	37,943,964	44,100,482	28,292,364	23,572,656	−35.8	−16.7

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Palau: Data expressed in 000s of local currency.

[b] Nepal: Data sourced from TADAT performance assessment report.

Sources: ISORA 2018; ISORA 2020; ISORA 2021: ISORA 2022; Nepal Inland Revenue TADAT Performance Assessment Report, February 2023.

Table A.46: Tax Arrears of State-Owned Enterprises, FYs 2018–2021

Region/Economy	All Tax Arrears (million, in local currency)				Tax Arrears Deemed Uncollectible (million, in local currency)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	700	601	1,180	1,066	178	214	207	533
Azerbaijan	154	162	171	245	134	145	132	182
Georgia	192	197	169	146	88	83	110	116
Kazakhstan	875	1,616	2,841	...	15	27	278	...
Kyrgyz Republic	...	...	...	...	...	...	...	...
Pakistan	...	...	24,855	...	...	...	0	...
Tajikistan	237	196	49	267	237	196	40	100
Uzbekistan	708,100	274,800	162,155	5,884	0	0	0	0
East Asia								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	0	0	0	0	0	0	0	0
Japan	...	...	...	...	...	...	...	...
Korea, Rep. of	...	...	...	...	...	...	...	...
Mongolia	162,566	2,980	0	499,944	0	0	0	0
Taipei,China	0	0	0	0	0	0	0	0
Pacific								
Australia	8	36	51	...	<1	<1	5	...
Cook Islands	...	...	1	1	...	...	...	0
Fiji	...	....	1	0	...	...	...	0
Nauru	133[a]	2[a]	51[a]	...	0	0	0	...
New Zealand	...	...	...	...	...	...	...	...
Palau	...	...	0	0	...	...	0	0
Papua New Guinea	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...
Tonga	3,584[a]	1,613[a]	...	...	0	0	...	...
Vanuatu	...	...	1,612[a]	...	...	...	1,532[a]	...
South Asia								
Bangladesh	55,645	177,289	...	...	10,845	0	...	...
Bhutan	...	...	...	...	...	...	...	...
India	...	...	...	...	...	...	...	...
Maldives	...	...	1,062	1,338	...	...	0	1,338
Nepal	...	...	1,049	...	...	...	968	...
Sri Lanka	...	...	...	...	...	...	...	...
Southeast Asia								
Brunei Darussalam	0	0	0	0	0	0	0	0
Cambodia	...	...	...	...	...	...	...	...
Indonesia	3,513[b]	...	2,937[b]	4,297[b]	1,372[b]	...	1,302[b]	1,107[b]
Lao PDR	34	357	...	...	0	0	...	...
Malaysia	0	0	0	...	0	0	0	...
Philippines	4,380	9,230	13,000	12,439	3,740	2,150	2,000	1,113
Singapore	...	...	...	...	...	...	...	...
Thailand	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...
Viet Nam	11,293[b]	12,022[b]	12,371[b]	16,568[b]	2,041[b]	2,593[b]	2,414[b]	2,351[b]

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] These amounts are expressed in 000s of local currency.

[b] These amounts are expressed in billions of local currency.

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.47a: Tax Debt Arrears (by major tax type), FYs 2019–2021 (Part 1)

| Region/Economy | Total Closing Stock of Tax Arrears at Year End by Tax Type (million, in local currency) | | | | | |
| | Corporate Income Tax | | | Personal Income Tax | | |
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	64,173	67,112	65,500	353	1,448	2,110
Azerbaijan	205	310	407	22	41	74
Georgia	...	429	398	...	423	570
Kazakhstan	127,081	74,219		7,766	4,746	
Kyrgyz Republic	...	11,931	6,833	...	5,396	...
Pakistan	...	583,373	828,329	...	612,581[a]	261,009
Tajikistan	76	133	113	279	...	...
Uzbekistan	111,700	180,492	896,823	535,700	306,156	270,043
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	38,638	39,361	37,503	6,875	9,953	12,741
Japan	91,843	94,552	108,095	245,545	223,805	228,816
Korea, Rep. of	739,891	767,893	918,803	2,445,132	2,332,852	3,079,860
Mongolia	495,636	335,697	588,515	5,781	18,777	108
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	10,906	10,249	11,783	11,312	13,213	13,720
Cook Islands	5	5	9	4	4	6
Fiji	92	76	84	...	...	...
Nauru	...	<1	...	...	...	...
New Zealand	...[b]	...[b]	...[b]	1,610[b]	1,743[b]	1,585[b]
Palau	n.a.	n.a.	...	...	...	...
Papua New Guinea	...	...	...	...	...	...
Samoa	...	...	21	...	...	...
Solomon Islands	...	4	...	...	...	...
Tonga	53	51	3	4	2	...
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia						
Bangladesh	100,455	...	...	80,364	...	...
Bhutan	...	...	...	...	...	...
India	4,922,468	8,021,104	6,860,857	5,301,890	7,861,533	6,968,321
Maldives	1,462	1,589	2,264	n.a.	81	14
Nepal	...	15,521	23,542	...	3,192	...
Sri Lanka	...	...	299,942[c]	...	...	...[c]
Southeast Asia						
Brunei Darussalam	...	14	15	0	0	0
Cambodia	...	...		...	...	
Indonesia	18,693,190	18,313,005	17,785,166	1,818,890	1,903,192	2,131,573
Lao PDR	7,500	150	...	790	...	...
Malaysia	5,352	4,339	5,055	4,716	6,591	4,335
Philippines	101,880	98,000	118,143	54,860	63,000	56,326
Singapore	140	115	161	226	244	304
Thailand	63,646	67,485	66,139	121,330	137,137	206,956
Timor-Leste	...	...	...	...	...	...
Viet Nam	6,768,535	5,534,492	7,183,068	24,263,214	3,057,128	4,753,598

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Pakistan: Arrears of individual income tax include employers' income tax withholdings.
[b] New Zealand: Corporate income tax arrears are aggregated with personal income tax arrears.
[c] Sri Lanka: Corporate income tax arrears include personal income arrears.

Sources: ISORA 2020; ISORA 2021;ISORA 2022.

Table A.47b: Tax Debt Arrears (by major tax type), **FYs 2019–2021** (Part 2)

Region/Economy	Total Closing Stock of Tax Arrears at Year End by Tax Type (million, in local currency)					
	Employers' Income Tax Withholdings			Value-Added Tax		
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	26,702	29,749	30,224	112,201	117,632	115,178
Azerbaijan	12	25	24	356	452	557
Georgia	...	...	...	...	959	956
Kazakhstan	4,822	3,016	...	122,058	79,899	...
Kyrgyz Republic	488	...	...	2,288	22,088	102,822
Pakistan	...	...[a]	...	...	349,907	507,144
Tajikistan	...	59	50	231	240	249
Uzbekistan	...	...	510,785	1,164,600	2,319,848	4,348,470
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	117,583	108,993	105,357	290,411	266,849	324,541
Korea, Rep. of	226,367	232,747	287,446	4,113,977	4,478,086	5,136,538
Mongolia	92,146	107,324	559	717,160	1,064,250	1,024,089
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	7,231	8,881	10,091	5,668	9,957	10,660
Cook Islands	5	8	6	8	5	9
Fiji	4	5	...	82	73	75
Nauru	...	3	...	...	...	
New Zealand	466	741	920	1,181	1,550	1,523
Palau	...	12	...	n.a.	n.a.	...
Papua New Guinea	...	...	...	...	...	...
Samoa	...	...	...	...	...	46
Solomon Islands	...	...	...	n.a.	n.a.	...
Tonga	8	8	6	34	29	5
Vanuatu	n.a.	n.a.	n.a.	...	10	...
South Asia						
Bangladesh	20,091	...	...	185,592	...	...
Bhutan	...	...	...	...	...	...
India	43,710	106,482	554,164	...	...	2,692,338
Maldives	n.a.	4	5	1,880	2,268	2,360
Nepal	...	2,539	...	...	19,910	14,007
Sri Lanka	...	7,258	...	...	210,609	246,156
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	...	...	...	...	...	...
Indonesia[b]	1,354,210	1,444,918	1,747,440	24,501,510	27,065,255	25,234,664
Lao PDR	...	2,554	...	29,000	5,080	...
Malaysia	...	...	...	n.a.	n.a.	n.a.
Philippines	2,430	2,000	2,985	102,900	80,000	114,672
Singapore	n.a.	n.a.	n.a.	314	342	247
Thailand	...	46	...	173,591	196,470	203,683
Timor-Leste	...	...	...	...	...	...
Viet Nam	...	...	...	26,027,768	20,393,632	23,199,906

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, VAT = value-added tax.

[a] Pakistan: Arrears of employers' income tax withholdings are included in individual income tax.

[b] Data for FY2019 were sourced from revenue body's annual report.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Indonesia's Directorate General of Taxes annual report, 2019.

Table A.48: Tax Arrears—Performance Indicators, FYs 2018–2021

Region/Economy	All Tax Arrears at Year End as Share of Annual Tax Collections (%)				Uncollectible Tax Arrears at Year End as Share of Total Tax Arrears (%)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	24.5	21.4	22.1	21.6	85.9	88.2	81.8	79.5
Azerbaijan	9.2	8.8	11.0	14.1	75.0	80.8	81.7	81.6
Georgia	38.5	40.6	39.9	41.7	81.0	78.4	74.3	0.1
Kazakhstan	4.6	4.0	4.0	...	.....	...	92.2	...
Kyrgyz Republic	3.1	5.3	46.1	12.8	27.2	63.6	64.9	...
Pakistan	...	...	45.8	35.7	...	...	77.4	...
Tajikistan	5.7	5.1	6.4	4.1	100.0	100.0	65.6	73.2
Uzbekistan	4.8	2.4	3.4	4.7	27.4	53.9	58.5	...
East Asia								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	12.1	13.3	16.2	15.2	47.2	43.4	35.1	32.5
Japan	1.5	1.4	1.4	1.4	...	...	...	7.3
Korea, Rep. of	5.9	6.2	6.0	5.3	45.6	47.6	42.6	35.0
Mongolia	31.3	25.7	35.3	23.9	10.5	10.0	18.3	29.1
Taipei,China	5.3	5.3	5.4	5.1	0.8	1.1	1.7	0.5
Pacific								
Australia	10.2	10.7	13.2	13.1	41.3	41.6	36.0	34.8
Cook Islands	35.3	24.2	25.2	46.8	...	...	...	...
Fiji	9.6	11.1	15.5	14.0	7.0	10.7	14.1	14.7
Nauru	3.6	2.4	10.8	...	...	...	...	...
New Zealand	3.8	4.0	4.9	4.2	36.2	22.6	10.2	20.6
Palau	...	...	40.5	4.2	...	...	0.6	0.6
Papua New Guinea	...	212.5	...	0.0	...	91.1	...	...
Samoa	...	...	...	12.4	...	...	...	9.2
Solomon Islands			1.6	0.2	...	...	4.5	33.3
Tonga	108.5	84.0	56.5		72.4	61.0	34.1	...
Vanuatu	...	...	0.1	0.1	...	...	50.0	...
South Asia								
Bangladesh	27.6	20.1	31.4		8.2			
Bhutan	...	...	...	...	...	...	...	...
India	102.3	140.0	152.3	91.5	...	...	...	...
Maldives	96.6	136.2	236.9	130.5	...	...	21.0	43.2
Nepal	40.8	...	20.7	28.8	...	...	59.2	77.0
Sri Lanka	...	...	136.5	100.0	...	...	38.3	74.2
Southeast Asia								
Brunei Darussalam	...	...	7.2	8.1	...	...	14.3	13.3
Cambodia	...	...	...	...	...	...	...	...
Indonesia	5.2	5.4	6.5	5.2	60.4	61.8	44.6	56.0
Lao PDR	1.1	...	1.7	1.6	100.0	...	...	...
Malaysia	8.3	7.9	10.2	8.2	9.1	5.5	0.3	1.8
Philippines	18.5	13.6	21.2	20.3	67.6	70.3	66.2	21.5
Singapore	1.1	1.4	1.4	1.6	...	...	...	...
Thailand	19.7	20.5	26.5	28.8	34.6	43.6	54.8	44.7
Timor-Leste	...	...	...	...	...	...	...	...
Viet Nam	8.3	8.2	6.4	8.5	47.7	51.1	34.1	20.5

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

Sources: ISORA 2018; ISORA 2020; ISORA 2021; ISORA 2022.

Table A.49: Verification—Number of Audits and Other Verification Actions, FYs 2018–2021

Region/Economy	Audits and Other Verification Actions (excluding electronic compliance checks)							
	Total Completed Cases				Total Completed Cases with Adjustment			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	10,664	12,783	17,563	25,442	8,143	9,416	9,420	13,185
Azerbaijan	17,385	11,151	572	373	15	25	563	367
Georgia	4,061	4,847	4,809	5,853	3,765	3,293	4,088	4,924
Kazakhstan	7,836	9,880	5,532	2,435	4,065	5,145	3,247	1,679
Kyrgyz Republic	9,249	8,948	4,220	6,431	6,593	6,530	...	3,570
Pakistan	84,016	257,002	146,101	389,272	....	...	24,044	...
Tajikistan	6,098	5,047	3,372	3,394	...	...	...	...
Uzbekistan	0[a]	...[a, b]	...[a, b]	139	0	0	0	139
East Asia								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	48,079	51,666	46,996	43,139	14,128	18,510	16,481	11,927
Japan	432,000[c]	434,000[c]	344,437[c]	120,853	266,000[c]	270,000[c]	218,464[c]	82,435
Korea, Rep. of	16,306	16,008	14,190	14,454	...	...	...	...
Mongolia	6,207	5,410	2,338	2,632	...	...	1,828	2,446
Taipei,China	...	...	...	...	...	...	...	...
Pacific								
Australia	697,492	922,498	870,968	1,036,000	361,107	530,508	467,884	441,317
Cook Islands	508	444	...	138	403	368	...	120
Fiji	2,392	2,048	1,734	1,928	...	...	1,734	1,928
Nauru	0	1	3	5	0	1	3	5
New Zealand	...	...	...	16,157	...	...	...	10,409
Palau	...	...	308	...	...	...	6	...
Papua New Guinea	...[b]	...[b]	...[b]	226	...	...	...	...
Samoa	136	126	233	...	136	126	116	...
Solomon Islands	161	377	145	122	125	135	137	122
Tonga	179	103	43	...	1	10	36	...
Vanuatu	...	...	228	...	...	...	152	...
South Asia								
Bangladesh	...	39,690	16,931	...	...	...	16,931	...
Bhutan	...	...	...	99,789	...	...	...	...
India	...	272,178	408,973	112,509	...	...	...	...
Maldives	2,421	877	305	341	1,669	674	218	183
Nepal	...	...	10,097	7,794	...	...	...	...
Sri Lanka	5,685	...	...	1,477	..	...	...	...
Southeast Asia								
Brunei Darussalam	...	...	75	202	...	...	75	...
Cambodia	906[b]	1,970[b]	4,201	3,833	...	...	2,922	2,533
Indonesia	160,247	158,042	89,886	455,548	81,406	54,209	42,639	455,548
Lao PDR	...[b]	...[b]	...[b]	...	...	...	...	...
Malaysia	2,019,431	2,152,451	2,140,162	2,408,455	540,649	764,496	803,226	831,264
Philippines	...	...	2,653	2,138	...	...	146	56
Singapore	...	...	....	...	...	...	...	...
Thailand	77,318	76,897	88,177	716	27,794	30,894	32,321	716
Timor-Leste	57	12	3	...	57	12	3	...
Viet Nam	692,907	613,797	96,243	1,119,308	96,462	100,227	...	76,148

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Audit moratorium in place from 2017; Large Taxpayer Program introduced from beginning of 2019.

[b] Audit assessments were only quantified for the Large Taxpayer Program reported in Appendix Table A.29.

[c] Data shown are all verifications for individual and corporate income taxes, value-added tax, employers' withholding, and inheritance and gift taxes.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Philippines Bureau of Internal Revenue annual report, 2019.

Table A.50a: Verification—Value of Assessments: Audits, etc., FYs 2018–2021 (Part 1)

Region/Economy	Value of Assessments from Audits and Other Actions (including penalties and interest) (million, in local currency)				Electronic Checks		
	FY2018	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia							
Armenia	44,650	79,865	100,778	45,770	9,918	7,973	12,779
Azerbaijan	482	556	562	379	...	...	20
Georgia	758	1,432	1,428	1,217	3	...	66
Kazakhstan	150,347	250,716	322,592	191,888	0	0	0
Kyrgyz Republic	8,579	12,711	4,737	18,359	4,589	6,134	4,493
Pakistan	221,000[a]	299,000[a]	974,897[b]	2,794,085[b]	0	0	0
Tajikistan	726	511	507	1,230	0	0	0
Uzbekistan	0	0	0	689,820	4,477,100	9,604,401	...
East Asia							
China, People's Rep. of	...	...	...	...	...	...	...
Hong Kong, China	2,931	3,155	3,773	5,569	...	...	
Japan	500,300	508,100	468,200	326,000	...	...	...
Korea, Rep. of	6,718,445	6,772,528	5,130,774	5,475,304	...	...	...
Mongolia	876,768	183,973	767,029	254,538	0	0	0
Taipei,China	...	...	...	...	...	...	...
Pacific							
Australia	11,692	9,540	8,157	8,277	...	...	...
Cook Islands	...	1,547[c]	...	4,913[c]	...	...	
Fiji	79	62	70	58	0	0	0
Nauru	...	127[c]	3,283[c]	581[c]	0	0	0
New Zealand	...[a]	...[a]	...[a]	860	...	...	...
Palau	...	...	23[c]	261[c]	...	...	...
Papua New Guinea	...[a]	...[a]	...[a]	214	0	0	0
Samoa	13,200[c]	8,392[c]	820[c]		0	0	
Solomon Islands	278	163	183	79	0	0	0
Tonga	12	7	3	...	0	0	0
Vanuatu	...	...	133	...	0	0	0
South Asia							
Bangladesh	...	37,308	72,176	...	0	0	0
Bhutan	...	...	...	251	0	0	0
India	...	1,805,980	4,629,920	579,239	...	...	...
Maldives	526	890	285	337	0	0	
Nepal	...	...	15,300	77,957	0	0	0
Sri Lanka	27,375	...	...	21,836	0	0	0
Southeast Asia							
Brunei Darussalam	...	...	46	6	0	0	0
Cambodia	...[a]	...[a]	...[a]	...[a]	0	0	0
Indonesia	105,227,768	84,986,515	152,284,619	78,528,280	0	0	0
Lao PDR	...[a]	...[a]	...[a]	239,200	...	...	0
Malaysia	11,229	18,966	18,442	15,503	0	0	0
Philippines	...	57,965	21,078	30,882	...	...	...
Singapore	...	...	...	...	...	...	...
Thailand	24,038	25,211	30,528	7,495	...	...	...
Timor-Leste	2,056[c]	1,860[c]	1,506[c]	...	0	0	...
Viet Nam	18,997,738	18,875,506	12,597,000	10,941,704	0	0	0

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Cambodia, the Lao PDR, New Zealand, Pakistan, and Papua New Guinea: Value of audit assessments for this year reported only for the Large Taxpayer Program cases (Appendix Table A.29).

[b] Pakistan: Value of reported assessments increased to include large taxpayer results for FY2020 and FY2021.

[c] These values are expressed in 000s of local currency.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.50b: Verification—Value of Assessments: All Actions, FYs 2018–2021 (Part 2)

Region/Economy	Value of Assessments (including penalties and interest) (million, in local currency)				% Change, Value of VerificationAssessments		
	FY2018	FY2019	FY2020	FY2021	FY2020/ FY2019	FY2021/ FY2020	FY2021/ FY2019
Central and West Asia							
Armenia	51,730	89,783	108,751	58,548	21.1	−46.2	−34.8
Azerbaijan	482	556	562	399	1.1	−29.0	−28.2
Georgia	761	1,435	1,428	1,283	−0.5	−10.2	−10.6
Kazakhstan	150,347	250,716	322,592	191,888	28.7	−40.5	−23.5
Kyrgyz Republic	16,072	17,300	10,871	22,852	−37.2	110.2	32.1
Pakistan	221,000[a]	299,000[a]	974,897[b]	2,794,085[b]	...	186.6	...
Tajikistan	726	511	507	1,230	−0.8	142.6	140.7
Uzbekistan	1,034,400[a]	4,477,100[a]	9,604,401[a]	689,820	114.5	−92.8	−84.6
East Asia							
China, People's Rep. of	...	...	...	...			
Hong Kong, China	2,931	3,155	3,773	5,569	19.6	47.6	76.5
Japan	500,300[b]	508,100[b]	468,200[b]	326,000	−7.9	−30.4	−35.8
Korea, Rep. of	6,718,445	6,772,528	5,130,774	5,475,304	−24.2	6.7	−19.2
Mongolia	876,768	183,973	767,029	254,538	316.9	−66.8	38.4
Taipei,China	...	...	...	...	...	...	...
Pacific							
Australia	11,692	9,540	8,157	8,277	−14.5	1.5	−13.2
Cook Islands	...	1,547[c]	...	4,913[c]	...	...	217.6
Fiji	79	62	70	58	12.9	−17.1	−6.5
Nauru	...	127[c]	3,283[c]	581[c]	2485.0	−82.3	357.5
New Zealand	...	...	...	860	...	...	...
Palau	...	...	23[c]	261[c]	...	1034.8	...
Papua New Guinea	...	...	...	214			
Samoa	13,200[c]	8,392[c]	820[c]	...	−90.2	...	...
Solomon Islands	278	163	183	79	12.3	−56.8	−51.5
Tonga	12	7	3	...	−57.1	...	...
Vanuatu	...	...	133	...	...	...	...
South Asia							
Bangladesh	...	37,308	72,176		93.5	...	...
Bhutan	...	...	...	251	...	...	...
India	...	1,805,980	4,629,920	579,239	156.4	−87.5	−67.9
Maldives	526	890	285	338	−68.0	18.6	−62.0
Nepal	...	...	15,300	77,957	...	409.5	...
Sri Lanka	27,375	...	...	21,836	...	...	...
Southeast Asia							
Brunei Darussalam	...	...	46	6	...	−87.0	...
Cambodia	...	...	....	...	...	...	...
Indonesia	105,227,768	84,986,515	152,284,619	78,528,280	79.2	−48.4	−7.6
Lao PDR	353,561	173,667	...	239,900	19.2	15.9	38.1
Malaysia	11,229	18,966	18,442	15,503	−2.8	−15.9	−18.3
Philippines	...	57,965	21,078	30,882	−63.6	46.5	−46.7
Singapore	...	...	...	...	...	...	...
Thailand	24,038	25,211	30,528	7,495	21.1	−75.4	−70.3
Timor-Leste	2,056[c]	1,860[c]	1,506[c]	...	−19.0	...	...
Viet Nam	18,997,738	18,875,506	12,597,000	10,941,704	−33.3	−13.1	−42.0

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] These assessments result from electronic compliance checks and audit results for large taxpayers commenced in 2019.
[b] Data shown are all verifications for individual and corporate income taxes, value-added tax, employers' withholding, and inheritance and gift taxes.
[c] These values are expressed in 000s of local currency.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.51: Verification—Value of Assessments (by major tax type), FYs 2019–2021 (Part1)

| Region/Economy | Value of Assessments from All Verification Actions by Tax Type (million, in local currency) | | | | | |
| | Corporate Income Tax | | | Personal Income Tax | | |
	FY2019	FY2020	FY2021	FY 2019	FY 2020	FY2021
Central and West Asia						
Armenia	24,521	8,782	5,426	3,114	0	0
Azerbaijan	129	181	152	12	18	8
Georgia	106	110	254	156	185	554
Kazakhstan	133,377	238,012	...	1,166	3,067	...
Kyrgyz Republic	...	...	...	...	...	...
Pakistan	...	335,187	829,629[a]	...	202,549	...[a]
Tajikistan	...	...	...	...	...	...
Uzbekistan[b]	...	...	137,177	...	...	24,033
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	2,272	2,988	4,943	883	785	627
Japan	194,300	164,400	120,700	96,100	99,200	53,300
Korea, Rep. of	4,459,008	3,533,654	3,988,274	1,623,159	1,072,187	794,367
Mongolia	37,199	149,567	66,453	5,406	548	6,659
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	...	...	...	...	...	...
Cook Islands	83[c]	...	4,198[c]	390[c]	...	432[b]
Fiji	13	17	...	...	...	...
Nauru	127[c]	3,283[c]	555[c]	...	0	0
New Zealand	...	...	...	...	...	...
Palau	n.a.	n.a.	...	...	...	...
Papua New Guinea	...	...	68	...	...	...
Samoa	2,807[c]	39[c]	...	46[c]	...	...
Solomon Islands	88	84	43	16	19	21
Tonga	5,248[d]	1,585[d]	...	...	...	
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia						
Bangladesh	4,590	6,083	...	3,060	113	...
Bhutan	119	199	59	17	16	192
India	1,332,030	3,332,070	514,949	473,950	1,297,850	393,050
Maldives	638	198	79	n.a.	0	0
Nepal	...	7,867	71,638	...	3,479	...
Sri Lanka	...	....	...	...	...	...
Southeast Asia						
Brunei Darussalam	...	46	6	n.a.	n.a.	n.a.
Cambodia	...	...	...	...	...	...
Indonesia	38,574,063	65,4836,32	40,874,487	798,669	973,718	1,379,486
Lao PDR	45,142	21,303	52,000	4,194	19,541	1,200
Malaysia	14,156	14,697	11,563	4,639	3,566	3,694
Philippines	1,693	517	68	72	2	...
Singapore	104	109	77	51	112	93
Thailand	10,575	9,350	857	7,741	7,670	5,976
Timor-Leste	...	...	...	...	...	...
Viet Nam	...	7,774	...	...	...	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Pakistan: Assessments for personal income tax included under corporate income tax.
[b] Uzbekistan: Audit moratorium in place from 2017.
[c] Values are expressed in 000s of local currency.
[d] Data do not include results from audits of Large Taxpayer Program.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.51: Verification—Value of Assessments (by major tax type), FYs 2019–2021 (Part 2)

Region/Economy	Value of Assessments from All Verification Actions by Tax Type (million, in local currency)					
	Value-Added Tax			Employer Withholdings		
	FY2019	FY2020	FY2021	FY2019	FY2020	FY2021
Central and West Asia						
Armenia	38,157	12,077	6,192	587	1,193	1,760
Azerbaijan	325	292	178	4	8	2
Georgia	346	213	381	....	66	28
Kazakhstan	77,111	79,685		39,061	1,828	
Kyrgyz Republic	...	...	...	...	...	...
Pakistan	...	...	206,343	...	a	...
Tajikistan	...	...	...	...	...	...
Uzbekistan	...[b]	...[b]	158,645	...	...	917
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	109,900	100,400	86,200	37,000	29,600	14,500
Korea, Rep. of	339,460	300,259	436,958	...	...	...
Mongolia	70,477	65,608	152,824	1,834	10,150	2,866
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	...	...	...	...	...	...
Cook Islands	149[c]	...	283[c]	924[c]	...	0
Fiji	23	12	...	...	...	...
Nauru	n.a.	n.a.	n.a.	...	0	26[c]
New Zealand	...	...	...	...	...	...
Palau	n.a.	n.a.	n.a.	...	12[b]	...
Papua New Guinea	...	...	131	...	...	14
Samoa	5,539[c]	113[c]		0	0	
Solomon Islands	n.a.	n.a.	n.a.	16	8	3
Tonga	1,365[c]	1,605[c]	....	...	...	...
Vanuatu	...	132	...	n.a.	n.a.	n.a.
South Asia						
Bangladesh	29,659	65,980		0	...	
Bhutan	n.a.	n.a.	n.a.	1,496	...	...
India	...	...	24,812	...	...	...
Maldives	243	81	257	n.a.	0	0
Nepal	...	2,297	5,390	...	1,657	...
Sri Lanka	...	...	20,518	...	...	...
Southeast Asia						
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	9,000	...	...	...	...	...
Indonesia	26,998,325	80,500,193	32,254,428	1,639,075	1,723,366	2,019,879
Lao PDR	54,623	88,671	162,000	...	13,548	24,000
Malaysia	n.a.	n.a.	n.a.	170	179	245
Philippines	...	2,890[d]		...	2[d]	
Singapore	196	180	208	n.a.	n.a.	n.a.
Thailand	6,896	13,509	651	...	...	0
Timor-Leste	n.a.	n.a.	n.a.	...	...	...
Viet Nam	...	4,144	...	...	512	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.

[a] Pakistan: Audit results included in personal income tax.
[b] Uzbekistan: Audit moratorium in place from 2017.
[c] Values are expressed in 000s of local currency.
[d] Philippines: Data do not include results from audits of Large Taxpayer Program.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.52a: Verification—Performance Indicators, FYs 2018–2021 (Part 1)

| | All Verification Actions (incl. electronic compliance checks) | | | | | | | |
| | Value of Assessments (% of total net tax revenue collections) | | | | Value of Large Taxpayer Program Verification Assessments (% of all verification assessments) | | | |
Region/Economy	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	4.4	6.9	7.9	4.0	34.4	37.6	21.0	55.7
Azerbaijan	4.1	4.2	4.1	2.6	29.3	16.2	...	36.6
Georgia	7.6	13.3	14.4	11.1	5.1	6.3	3.6	3.0
Kazakhstan	1.8	3.0	4.3	2.0	13.3	17.2	0.3	25.6
Kyrgyz Republic	21.4	15.6	7.7	9.3	15.0	9.3	10.4	...
Pakistan	...	...	15.9	24.1	...	...	28.9	62.5
Tajikistan	5.4	3.6	3.7	6.3	0.6	...	49.1	4.1
Uzbekistan	1.6	4.6	7.5	0.4	0.0	0.3	1.8	85.0
East Asia								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	0.9	0.9	1.2	1.7	n.a.	n.a.	19.2	44.9
Japan	0.9	0.9	0.9	0.6	16.4	15.8	12.8	19.5
Korea, Rep. of	2.4	2.4	1.9	1.6	n.a.	n.a.	n.a.	n.a.
Mongolia	14.4	2.5	15.0	2.8	48.5	45.4	6.1	43.7
Taipei,China	...	...	...	...	n.a.	n.a.	n.a.	n.a.
Pacific								
Australia	2.9	2.2	2.0	1.8	25.7	16.0	34.1	21.9
Cook Islands		1.3	0.0	6.4	...	...	...	...
Fiji	3.3	2.7	5.5	4.3	...	...	21.4	...
Nauru		0.3	5.1	0.9	...	...	...	...
New Zealand	...	...	...	0.8	...	...	...	...
Palau	...	...	0.1	1.1	n.a.	n.a.	n.a.	n.a.
Papua New Guinea	...	...	...	2.3	...	...	...	...1.4
Samoa	4.1	2.3	0.2	0.0	98.5	...	...	...
Solomon Islands	16.6	10.7	13.6	4.5	n.a.	n.a.	n.a.	2.5
Tonga	10.3	5.9	1.9	...	...	...	...	...
Vanuatu	...	...	1.4	...	n.a.	n.a.	n.a.	n.a.
South Asia								
Bangladesh	...	1.7	3.3	...	...	22.9	7.5	...
Bhutan	...	...	...	1.5	n.a.	n.a.	n.a.	n.a.
India	...	15.9	44.1	3.1	...	1.3	0.7	1.1
Maldives	4.2	6.8	3.3	2.8	68.3	55.4	67.7	81.1
Nepal	...	...	3.1	13.1	...	...	37.2	87.7
Sri Lanka	3.0	...	...	3.5	90.4	...	...	95.8
Southeast Asia								
Brunei Darussalam	...	...	23.7	3.2	n.a.	n.a.	n.a.	n.a.
Cambodia	...	...	...	...	...	...	...	...
Indonesia	8.0	6.3	14.2	6.1	44.7	22.6	...	...
Lao PDR	3.3	1.5	0.0	2.0	100.0	100.0	100.0	91.7
Malaysia	8.6	14.0	16.7	11.9	51.2	57.8	44.3	57.8
Philippines	0.0	2.7	1.1	1.5		58.5	83.7	97.3
Singapore	...	...	...	...	...	...	...	...
Thailand	1.4	1.4	2.0	0.5	51.0	73.1	36.0	6.7
Timor-Leste	4.0	3.8	3.0	...	n.a.	n.a.	n.a.	n.a.
Viet Nam	2.0	1.8	0.0	0.8	1.5	2.4	2.9	0.4

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable.
Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.52b: Verification—Performance Indicators, FYs 2018–2021 (Part 2)

Region/Economy	Audit Cases Adjusted (% of all audit cases)				Audit Assessments by Tax Type, FY2021 (% of all audit assessments)			
	FY2018	FY2019	FY2020	FY2021	CIT	PIT	VAT	EWT
Central and West Asia								
Armenia	76.4	73.7	53.6	51.8	9.3	...	10.6	3.0
Azerbaijan	0.1	0.2	98.4	98.4	38.1	2.0	44.6	0.5
Georgia	92.7	67.9	85.0	84.1	19.8	43.2	29.7	2.2
Kazakhstan	51.9	52.1	58.7	69.0	...	...	...	...
Kyrgyz Republic	71.3	73.0	...	55.5	...	...	...	...
Pakistan	...	...	16.5	...	77.2	...	19.2	...
Tajikistan	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	100.0	19.9	3.5	23.0	0.1
East Asia								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	29.4	35.8	35.1	27.6	88.8	11.3	n.a.	0
Japan	61.6	62.2	63.4	68.2	37.0	16.3	26.4	4.4
Korea, Rep. of	...	...	...	...	72.8	14.5	8.0	...
Mongolia	...		78.2	92.9	26.1	2.6	60.0	1.1
Taipei,China	...	...	...	...	...	...	...	...
Pacific								
Australia	51.8	57.5	53.7	42.6	...	...	...	...
Cook Islands	79.3	82.9	...	87.0	85.5	8.8	5.8	0
Fiji	...	...	100.0	100.0	...	...	...	...
Nauru	...	100.0	100.0	100.0	95.5	0.0	0.0	44.8
New Zealand	...	...	...	64.4	...	...	...	...
Palau	...	...	1.9	...	0.0	0.0	n.a.	0.0
Papua New Guinea	...	...	...	...	31.8	...	61.2	6.5
Samoa	100.0	100.0	49.8	...				
Solomon Islands	77.6	35.8	94.5	100.0	54.4	26.6	n.a.	3.8
Tonga	0.6	9.7	83.7	...	...	...	...	...
Vanuatu	...	...	66.7	...	n.a.	n.a.	...	n.a.
South Asia								
Bangladesh	...	...	...	...	...	...	...	...
Bhutan	...	...	...	...	23.5	76.5	n.a.	0
India	..	...	...	...	88.9	67.9	4.3	...
Maldives	68.9	76.9	71.5	53.7	23.4	0.0	76.0	0.0
Nepal	...	...	...	...	91.9	...	6.9	...
Sri Lanka	...	...	...	...	0.0	...	94.0	...
Southeast Asia								
Brunei Darussalam	...	...	100.0	...	100.0	n.a.	n.a.	n.a.
Cambodia	...	...	69.6	66.1	...	...	...	...
Indonesia	50.8	34.3	47.4	100.0	52.1	1.8	41.1	2.6
Lao PDR	...	...	...	...	21.7	0.5	67.5	10.0
Malaysia	26.8	35.5	37.5	34.5	74.6	23.8	0.0	1.6
Philippines	...	...	...	2.6	...	...	...	...
Singapore	...	...	...	...	...	...	...	..
Thailand	35.9	40.2	36.7	100.0	11.4	79.7	8.7	0.0
Timor-Leste	100.0	100.0	100.0	...	...	...	...	...
Viet Nam	13.9	16.3	...	6.8	...	...	...	...

... = no data at cut-off date, CIT = corporate income tax, EWT = employer withholding tax, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, PIT = personal income tax, VAT = value-added tax.

Sources: ISORA 2020; ISORA 2021, ISORA 2022.

Table A.53: Tax Crimes Investigations—Responsibilities and Case Numbers, FYs 2018–2021

Region/Economy	Responsibility for Directing and Conducting Tax Crime Investigations in FY2021	Cases Referred by Revenue Body for Prosecution (where revenue body is fully responsible) (number)			
		FY2018	FY2019	FY2020	FY2021
Central and West Asia					
Armenia	Revenue body is fully responsible	535	609	632	820
Azerbaijan	Revenue body is under direction of external body	414	309	62	72
Georgia	Responsibility rests fully with another agency	...	...	...	...
Kazakhstan	Other agency conducts investigations	...	...	...	
Kyrgyz Republic	Responsibility rests fully with another agency	...	...	...	...
Pakistan	Revenue body is fully responsible	17	16	132	159
Tajikistan	Responsibility rests fully with another agency	...	...	...	...
Uzbekistan	Responsibility rests fully with another agency	...	...	...	0
East Asia		...	...		
China, People's Rep. of	Responsibility rests fully with another agency	...	...	...	...
Hong Kong, China	Revenue body is fully responsible	4	4	5	1
Japan	Revenue body is fully responsible	113	121	116	83
Korea, Rep. of	Revenue body is fully responsible	336	188	160	117
Mongolia	Responsibility rests fully with another agency	...	...	...	...
Taipei,China	Responsibility rests fully with another agency	...	...	...	...
Pacific					
Australia	Revenue body is fully responsible	57	77	29	32
Cook Islands	Revenue body is fully responsible	3	2	0	0
Fiji	Revenue body is fully responsible	39	45	...	0
Nauru	Responsibility rests fully with another agency	0	0	0	0
New Zealand	Revenue body is fully responsible	186	89	38	135
Palau	Revenue body is under direction of external body	...	...	3	0
Papua New Guinea	Revenue body is fully responsible	10	20	0	0
Samoa	Revenue body is fully responsible	180	5	...	0
Solomon Islands	Revenue body is under direction of external body	0	0	0	0
Tonga	Revenue body is fully responsible	0	0	0	0
Vanuatu	Revenue body is fully responsible	...	...	0	3
South Asia					
Bangladesh	Revenue body is fully responsible	...	21	...	...
Bhutan	Revenue body is fully responsible	...	...	...	0
India	Revenue body is fully responsible	4,527	3,512	1,226	274
Maldives[a]	Revenue body is fully responsible	1	0	0	0
Nepal	Responsibility rests fully with another agency	...	...	...	...
Sri Lanka	Revenue body is fully responsible	...	...	...	...
Southeast Asia					
Brunei Darussalam	...	...	...	...	...
Cambodia	Revenue body is under direction of external body	0	1	5	5
Indonesia	Revenue body is fully responsible	124	138	97	93
Lao PDR	Revenue body is fully responsible	109	69	...	2
Malaysia	Revenue body is fully responsible	24	53	65	12
Philippines	Revenue body is fully responsible	207	330	157	114
Singapore	Revenue body is fully responsible	25	69	26	43
Thailand	Revenue body is fully responsible	139	199	164	195
Timor-Leste	Revenue body is fully responsible	...	...	...	...
Viet Nam	Responsibility rests fully with another agency	0	0	0	0

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data sourced from ISORA 2018.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.54: Complaints and Dispute Resolution Mechanisms—Administrative Review, FY2021

| Region/Economy | Complaint Mechanisms[a] | | Mechanisms to Challenge Assessments | | | Internal Review by Revenue Body Must Be Pursued First, Where Available |
| | | | | Independent Review By | | |
	In Revenue Body	In External Body	Review by Revenue	External Body	Higher Appellate Court	
Central and West Asia						
Armenia	✓	…	✓	✓	✓	X
Azerbaijan	✓	✓	✓	✓	✓	✓
Georgia	X	✓	✓	✓	✓	✓
Kazakhstan	X	✓	✓	✓	✓	X
Kyrgyz Republic	✓	✓	✓	✓	✓	X
Pakistan	…	…	✓	✓	✓	✓[b]
Tajikistan	✓	✓	✓	X	X	✓
Uzbekistan	✓	✓	✓	✓	✓	✓
East Asia						
China, People's Rep. of	✓	…	✓	✓	✓	✓
Hong Kong, China	✓	✓	✓	✓	✓	✓
Japan	✓	…	✓	✓	✓	✓
Korea, Rep. of	✓	✓	✓	✓	✓	X
Mongolia	✓	…	✓	✓	✓	✓
Taipei,China	✓	X	✓	✓	✓	✓
Pacific						
Australia	✓	✓	✓	✓	✓	✓
Cook Islands	…	…	✓	X	✓	✓
Fiji	✓	…	✓	✓	✓	✓
Nauru	…	…	✓	X	✓	✓
New Zealand	✓	✓	✓	✓	✓	✓
Palau	…	…	✓	X	✓	✓
Papua New Guinea	✓	…	✓	✓	✓	✓
Samoa	X	X	✓	✓	✓	✓
Solomon Islands	X	X	✓	✓	✓	✓
Tonga	…	…	✓	✓	✓	X
Vanuatu	…	…	✓	X	✓	✓
South Asia						
Bangladesh	✓	X	✓	✓	✓	✓
Bhutan	✓	X	✓	X	✓	✓
India	✓	✓	✓	✓	✓	✓
Maldives	✓	X	✓	✓	✓	✓
Nepal	…	…	✓	✓	✓	✓
Sri Lanka	✓	X	✓	✓	✓	✓
Southeast Asia						
Brunei Darussalam	…	…	✓	✓	✓	✓
Cambodia	✓	✓	✓	✓	✓	✓
Indonesia	✓	✓	✓	✓	✓	✓
Lao PDR	…	…	✓	X	X	X
Malaysia	✓	✓	✓	✓	✓	✓
Philippines	✓	✓	✓	✓	✓	✓
Singapore	✓	✓	✓	✓	✓	✓
Thailand	✓	…	✓	X	✓	✓
Timor-Leste	…	…	✓	✓	✓	✓
Viet Nam	…	…	✓	✓	✓	✓

… = no data at cut-off date, ✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data sourced from ISORA 2018.

[b] Taxpayers have the option of deciding which avenue is to be pursued in the first instance.

Sources: ISORA 2018; ISORA 2022.

Table A.55: Disputes—Internal Reviews by Revenue Body, FYs 2018–2021

Region/Economy	New Tax Cases Initiated during Fiscal Year				Tax Cases on Hand at Year End			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	872	1,532	2,530	1,992	79	73	68	89
Azerbaijan	5,392	6,982	337	644	1,128	573	233	493
Georgia	9,012	8,444	6,312	9,255	356	817	144	364
Kazakhstan	...	...	0	...	...	...	0	0
Kyrgyz Republic	840	817	...	193	11	47	...	122
Pakistan	10,555	11,368	38,296	2,697	...	15,765	18,068	784
Tajikistan	10	16	8	0	3	8	0	0
Uzbekistan	203	546	231	228	0	18	4	2
East Asia								
China, People's Rep. of	1,078	1,063	1,243	1,875	224	221	262	398
Hong Kong, China	80,497	95,314	55,207	83,219	41,303	43,233	37,703	41,371
Japan	4,767	5,147	3,922	3,237	3,012	3,086	2,649	2,559
Korea, Rep. of	3,245	3,727	4,303	3,928	535	568	846	1,290
Mongolia	303	269	120	32	142	124	38	13
Taipei,China	7,316	6,473	6,714	7,424	1,388	1,681	2,989	1,051
Pacific								
Australia	23,483	27,016	21,892	27,780	4,681	6,174	6,422	4,658
Cook Islands	1	1	0	1	1	1	0	1
Fiji	6,259	5,290	7,784	13,767	64	103	59	76
Nauru	0	0	0	1	0	0	0	1
New Zealand	35	44	46	47	12	7	9	6
Palau	...	...	308	0	...	...	308	0
Papua New Guinea	...	...	179		...	...	242	...
Samoa	...	...	...		...	...	...	...
Solomon Islands	...	...	5	...	...	...	4	...
Tonga	11	19	4	...	9	4	1	...
Vanuatu	...	...	...	0	...	...	...	1
South Asia								
Bangladesh	...	24,126	18,827	...	...	5,071	5,117	...
Bhutan	...	...	...	437	...	...	...	0
India	24,125	26,884	216,441	29,751	304,436	336,068	457,808	460,050
Maldives	105	62	64	29	46	12	16	11
Nepal	...	...	1,240	1,073	...	...	868	1,295
Sri Lanka	836	...	3,270	836	213	...	876	213
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	131	87
Cambodia	56	62	68	150	62	68	150	198
Indonesia	22,573	23,815	20,689	21,106	304,436	336,088	2,218	16,720
Lao PDR	...	...	...	...	...	...	...	...
Malaysia	427	290	396	535	144	182	228	287
Philippines	318	281	342	...	788	1,033	489	...
Singapore	...	...	...	...	...	...	...	...
Thailand	814	1,121	1,235	1,375	1,121	1,236	1,375	1,539
Timor-Leste	12	14	23	0	12	14	23	0
Viet Nam	1,840	2,064	1,232	1,118	85	133	74	480

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.56: Disputes—Independent Reviews by External Bodies, FYs 2018–2021

Region/Economy	New Tax Cases Initiated during Fiscal Year				Tax Cases on Hand at Fiscal Year End			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	1,138	1,396	1,284	1,263	1,664	2,654	2,243	3,722
Azerbaijan	...	...	6	6	...	...	3	3
Georgia	637	791	2,670	3,136	3,066	2,979	1,315	478
Kazakhstan	239	231	537	2,770	4	1	0	762
Kyrgyz Republic	...	...	...	...	...	...	...	...
Pakistan	...	21,982	45,714	1,009	21,892	19,434	50,188	756
Tajikistan	...	...	0	0	...	...	0	0
Uzbekistan	...	...	53	...	...	...	58	...
East Asia								
China, People's Rep. of	822	817	718	1,037	...	...	...	...
Hong Kong, China	54	49	49	52	31	41	29	38
Japan	199	181	223	165	199	203	210	195
Korea, Rep. of[a]	5,090	4,598	8,712	7,019	1,613	1,975	2,075	2,760
Mongolia	74	84	120	134	45	7	38	...
Taipei,China	1,356	984	972	1,028	354	257	252	201
Pacific								
Australia	385	370	377	618	575	637	612	670
Cook Islands	0	0	0	0	0	0	0	0
Fiji	38	45	11	0	33	31	27	0
Nauru	0	0	0	0	0	0	0	0
New Zealand	26	20	13	27	48	52	23	18
Palau	...	...	0	0	...	...	0	0
Papua New Guinea	...	...	5	...	...	...	25	...
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	0	0	0	...	0	0	0	...
Tonga	0	0	0	...	1	0	0	0
Vanuatu	...	...	...	...	...	...	...	...
South Asia								
Bangladesh	...	10,735	6,767	...	...	2,149	2,013	...
Bhutan	0	0	0	0	0	0	0	0
India	49,693	50,735	20,639	17,084	92,766	92,205	135,282	81,624
Maldives	10	35	79	7	22	42	118	44
Nepal	...	...	959	475	...	...	790	970
Sri Lanka	...	...	128	233	...	...	716	866
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	1	3
Cambodia	3	1	3	4	2	1	2	4
Indonesia	6,810	11,541	14,737	12,332	17,840	23,400	14,354	16,995
Lao PDR	...	...	...	...	...	...	...	...
Malaysia	283	169	209	540	836	799	786	1,102
Philippines	1	1	0	...	1	1	0	...
Singapore	...	...	...	...	...	...	...	...
Thailand	...	...	...	1,375	...	...	...	1,539
Timor-Leste	0	0	0	0	0	0	0	0
Viet Nam	...	...	54	67	...	...	34	73

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data reported by the Republic of Korea are for the Tax Tribunal only and exclude the Board of Audit and Inspection.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.57: Disputes—Independent Reviews by Higher Appellate Court, FYs 2018–2020

Region/Economy	Total Number of Tax Cases Resolved				Number Resolved in Favor of Revenue Body[a]			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	17	25	183	223	1	2	73	59
Azerbaijan	147	78	53	72	21	18	52	64
Georgia	120	159	361	356	76	84	200	274
Kazakhstan	22	5	537	687	...	...	329	50
Kyrgyz Republic	80	83	841	...	74	81	613	...
Pakistan	...	...	...	163	...	...	130	129
Tajikistan	83	55	66	45	52	36	47	28
Uzbekistan	...	2,003	...	...	...	1,639	...	...
East Asia								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	2	3	4	1	1	0	0	1
Japan	106	76	82	90	98	74	78	87
Korea, Rep. of	2,243	2,456	2,542	2,631	783[b]	739[b]	693[b]	728
Mongolia	28	71	58	100	20	34	45	93
Taipei,China	...	...	377	255	...	...	356	236
Pacific								
Australia	21	27	24	32	11	9	20	17
Cook Islands	1	1	0	0	1	1	0	0
Fiji	10	18	6	4	...	...	6	4
Nauru	0	0	0	0	0	0	0	0
New Zealand	18	2	8	4	16	1	7	2
Palau	...	...	0	0	...	...	0	0
Papua New Guinea	...	...	1	...	...	...	1	...
Samoa	...	...	0	...	...	...	0	...
Solomon Islands	...	...	1	...	...	...	1	...
Tonga	...	...	0	...	...	...	0	...
Vanuatu	...	...	0	1	...	...	0	1
South Asia								
Bangladesh	5,126	4,957	...	...	1,258	4,535	...	...
Bhutan	...	...	...	5	...	...	...	0
India	...	...	11,052	5,409	...	...	868	2,383
Maldives	0	2	18	48	0	0	10	14
Nepal	...	...	...	...	...	...	...	...
Sri Lanka	...	...	15	14	...	...	12	10
Southeast Asia								
Brunei Darussalam	...	...	...	0	...	...	0	0
Cambodia	0	0	0	0	0	0	0	0
Indonesia	469	2,523	8,388	15,823	107	614	3,616	11,064
Lao PDR	....	...	...	...	...	...	...	...
Malaysia	12	21	15	82	9	10	11	31
Philippines	59	85	184	151	21	39	178	102
Singapore	3	3	5	4	2	2	4	3
Thailand	...	...	...	...	...	...	...	...
Timor-Leste	0	1	0	0	0	0	0	0
Viet Nam	...	...	6	28	...	...	0	14

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Cases resolved in favor of revenue body are those where it has been successful in more than 50% of the issue(s) contested in each case.

[b] Case volumes reported refer only to those where the revenue body was 100% successful on issues contested.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.58: Disputes—Performance Indicators, FYs 2018–2021

Region/Economy	Internal Reviews by Revenue Body: Case Inventory Turnover Rates[a]			Reviews by Higher Appellate Court: Cases Resolved in Favor of Revenue Body[b] (% of total resolved)			
	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia							
Armenia	20.2	36.0	25.1	5.9	8.0	39.9	26.5
Azerbaijan	8.9	1.7	1.1	14.3	23.1	98.1	88.9
Georgia	13.6	14.5	35.6	63.3	52.8	55.4	77.0
Kazakhstan	...	...	...	0.0	0.0	61.3	51.1
Kyrgyz Republic	26.9	...	...	92.5	97.6	73.0	...
Pakistan		2.1	2.0	...	...	1.2	...
Tajikistan	2.0	4.0	...	62.7	65.5	71.2	62.2
Uzbekistan	58.7	22.3	2.0	...	81.8	...	...
East Asia							
China, People's Rep. of	4.8	5.0	5.3	...	...	...	...
Hong Kong, China	2.2	1.5	2.0	50.0	0.0	0.0	100.0
Japan	1.7	1.5	1.3	92.5	97.4	95.1	96.7
Korea, Rep. of	6.7	5.7	3.3	34.9	30.1	27.3	27.7
Mongolia	2.2	2.5	2.2	71.4	47.9	77.6	93.0
Taipei,China	4.0	2.3	4.6	...	...	94.4	92.5
Pacific							
Australia	4.7	3.4	5.3	52.4	33.3	83.3	53.1
Cook Islands	1.0	2.0	0.0	100.0	100.0	0	0
Fiji	62.9	96.6	203.7	...	...	100.0	100.0
Nauru	...	...	...	0	0	0	0
New Zealand	5.2	5.5	6.7	88.9	50.0	87.5	50.0
Palau	...	...	2.0	...	...	0	...
Papua New Guinea	...	...	2.0	...	...	100.0	...
Samoa	...	...	...	...	...	0	...
Solomon Islands	...	...	2.0	...	...	100.0	...
Tonga	3.7	2.8	2.0	...	...	0	...
Vanuatu	...	...	...	...	...	0.0	100.0
South Asia							
Bangladesh	...	3.7	2.0	24.5	91.5	...	...
Bhutan	...	...	...	...	....	...	...
India	0.0	0.2	0.1	...	...	7.9	44.1
Maldives	3.3	4.3	2.5	...	0.0	55.6	29.2
Nepal	...	...	0.6	...	...	...	...
Sri Lanka	...	...	2.8	...	...	80.0	71.4
Southeast Asia							
Brunei Darussalam	...	...	...	...	...	0	...
Cambodia	0.9	-0.1	0.6	0	0	0	...
Indonesia	0.0	2.1	0.7	22.8	24.3	43.1	69.9
Lao PDR	...	...	...	...	...	...	...
Malaysia	1.5	1.7	1.8	75.0	47.6	73.3	37.8
Philippines	0.0	1.2	...	35.6	45.9	96.7	67.5
Singapore	...	...	...	66.7	66.7	80.0	75.0
Thailand	0.9	0.8	0.8	...	...	...	...
Timor-Leste	0.9	0.8	2.0	...	...	...	...
Viet Nam	18.5	12.5	2.6	...	...	0.0	50.0

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Inventory case turnover rate = Number of cases completed in FY / Average number of cases at beginning and end of FY.

[b] Cases resolved in favor of revenue body are those where it has been successful in more than 50% of the issue(s) contested in each case.

Sources: ISORA 2020; ISORA 2021.

Table A.59: Service Channels Available for Taxpayer Registration Purposes, FY2021

Region/Economy	Types of Channels Available for Taxpayer Registration Purposes[a]						Number of Channels Available
	Online	Telephone	E-mail	Mail	In Person	Other	
Central and West Asia							
Armenia	✓	X	X	X	✓	X	2
Azerbaijan	✓	X	X	X	✓	✓	3
Georgia	✓	X	X	X	✓	✓	3
Kazakhstan	✓	✓	X	✓	✓	X	4
Kyrgyz Republic	X	X	X	X	✓	X	1
Pakistan	✓	X	X	X	✓	X	2
Tajikistan	✓	✓	✓	✓	✓	✓	6
Uzbekistan	✓	X	X	X	✓	X	2
East Asia							
China, People's Rep. of	✓	X	X	X	✓	X	2
Hong Kong, China	✓	✓	✓	✓	✓	✓	6
Japan	✓	✓	✓	✓	✓	✓	6
Korea, Rep. of	✓	✓	X	X	✓	X	3
Mongolia	✓	✓	✓	✓	✓	✓	6
Taipei,China	✓	✓	✓	✓	✓	X	5
Pacific							
Australia	✓	✓	X	✓	✓	X	4
Cook Islands	✓	✓	✓	✓	✓	✓	
Fiji	✓	✓	✓	X	✓	✓	5
Nauru	X	X	✓	X	✓	X	2
New Zealand	✓	✓	✓	✓	✓	X	5
Palau	X	X	✓	✓	✓	X	3
Papua New Guinea	X	X	✓	✓	✓	X	3
Samoa	X	X	✓	X	✓	X	2
Solomon Islands	X	X	X	X	✓	X	1
Tonga	X	X	✓	✓	✓	X	3
Vanuatu	X	X	X	X	✓	X	1
South Asia							
Bangladesh	...	...	...	...	...	...	...
Bhutan	✓	✓	✓	✓	✓	X	5
India	✓	✓	✓	✓	✓	✓	6
Maldives	✓	X	✓	✓	✓	X	4
Nepal	✓	X	X	X	✓	X	2
Sri Lanka	✓	X	✓	✓	✓	X	4
Southeast Asia							
Brunei Darussalam	✓	X	X	X	X	X	1
Cambodia	✓	X	X	X	✓	X	2
Indonesia	✓	X	X	X	✓	X	2
Lao PDR	✓	X	X	X	✓	✓	3
Malaysia	✓	✓	✓	✓	✓	✓	6
Philippines	✓	✓	✓	X	✓	✓	5
Singapore	✓	✓	✓	✓	✓	✓	6
Thailand	✓	X	X	✓	✓	X	3
Timor-Leste	X	X	✓	✓	✓	X	3
Viet Nam	✓	✓	✓	✓	✓	X	5

... = no data at cut-off date, ✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] The registration channels specified may not be available for all tax types or taxpayer segments.

Source: ISORA 2022.

Table A.60a: Service Contacts—Online Taxpayer Accounts Channel, FYs 2018–2021 (Part 1)

Region/Economy	Service Contacts Are Monitored	Online via Taxpayer's Account (number of contacts)				% Change	
		FY2018	FY2019	FY2020	FY2021	FY2021 to FY2020	FY2021 to FY2019
Central and West Asia							
Armenia	✓	20	44	288	632	119.4	1,336.4
Azerbaijan	✓	...	....	6,763	9,797	44.9	...
Georgia	✓	193,162	232,832	542,040	254,996	−53.0	9.5
Kazakhstan	X	...	...	...	...	...	...
Kyrgyz Republic	✓	...	...	...		...	...
Pakistan	X	...	...	...	...	...	...
Tajikistan	✓	...	0	...	...	...	...
Uzbekistan	✓	500,000	600,000	998,896	17,366	−98.3	−97.1
East Asia							
China, People's Rep. of	✓	...	...	...	...	...	...
Hong Kong, China	✓	3,521,000	4,350,000	7,186,000	6,129,817	−14.7	40.9
Japan	✓	...	...	...	...	...	...
Korea, Rep. of	✓	287,027	360,210	470,846	496,052	5.4	37.7
Mongolia	✓	...	...	107,269	904,471	743.2	...
Taipei,China	X	...	...	...	...	...	...
Pacific						...	...
Australia	✓	...	...	...	...	...	...
Cook Islands	✓	...	...	...	...	...	...
Fiji	✓	...	...	46,000	17,982	−60.9	
Nauru	X	...	...	0	...	...	...
New Zealand	✓	28,530,000	27,034,000	30,614,000	26,691,135	−12.8	−1.3
Palau	X	...	...	...	...	...	...
Papua New Guinea	X	...	...	...	...	...	...
Samoa	X	5	4	...	...	...	...
Solomon Islands	X	...	4,700	6,000	...	...	...
Tonga	✓	26	35	...	...	...	...
Vanuatu	X	...	...	...	...	...	...
South Asia							
Bangladesh	...	...	...	...	...	...	...
Bhutan	X	...	...	...	...	...	...
India	✓	...	24,278	14,387	6,271	−56.4	−74.2
Maldives	✓	0	0	0	0	0	0
Nepal	✓	...	...	...	1,468,522	...	...
Sri Lanka	✓	...	...	...	...	...	...
Southeast Asia							
Brunei Darussalam	✓	...	0	0	0	...	...
Cambodia	✓	1,798	11,480	0	0	...	−100.0
Indonesia	✓	0	0	...	19,522,355	...	...
Lao PDR	X	...	...	...	...	...	...
Malaysia	✓	134,136	211,600	171,660	200,266	16.7	−5.4
Philippines	✓	49,775	41,902	...	...	...	...
Singapore	✓	14,965, 969	16,249,000	19,862,000	36,113,000	81.8	122.2
Thailand	✓	...	...	...	3,888,095	...	...
Timor-Leste	X	...	...	...	5	...	...
Viet Nam	✓	...	...	...	...	...	...

... = no data at cut-off date, ✓ = relevant, X = not relevant, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Japan's National Tax Agency annual report, 2020.

Table A.60b: Service Contacts—Digital Assistance Channel, FYs 2018–2021 (Part 2)

Region/Economy	Digital Assistants (number of contacts)				% Change	
	FY2018	FY2019	FY2020	FY2021	FY2021 to FY2020	FY2021 to FY2019
Central and West Asia						
Armenia	393	1,105	2,010	980	–51.2	–11.3
Azerbaijan	…	….	…	…	…	…
Georgia	…	…	8,259	35,806	333.5	…
Kazakhstan	26,160	122,762	…	…	…	…
Kyrgyz Republic	…	…	…	…	…	…
Pakistan	…	…	…	…	…	…
Tajikistan	2,032	895	490	410	–16.3	–54.2
Uzbekistan	…	0	652	12,170	1,766.6	…
East Asia						
China, People's Rep. of	167,300	10,094,000	16,360,000	21,499,600	31.4	113.0
Hong Kong, China	0	0	0	0	0	0
Japan	…	…	370,000	4,830,000	1,205.4	…
Korea, Rep. of	…	…	…	155,817	…	…
Mongolia	…	…	…	4,700	…	…
Taipei,China	…	…	…	…	…	…
Pacific						
Australia	1,545,000	1,460,000	2,212,000	2,038,645	–7.8	39.6
Cook Islands	…	…	…	…	…	…
Fiji	…	…	…	1,040	…	…
Nauru	…	…	0	…	…	…
New Zealand	…	…	…	…	…	…
Palau	…	…	…	…	…	…
Papua New Guinea	…	…	…	…	…	…
Samoa	…	…	…	…	…	…
Solomon Islands	…	800	680	…	…	…
Tonga	…	…	…	…	…	…
Vanuatu	…	…	…	…	…	…
South Asia						
Bangladesh	…	…	….	…	…	…
Bhutan	…	…	…	…	…	…
India	…	68,881	19,580	28,178	43.9	–59.1
Maldives	…	…	8,691	3,275	–62.3	…
Nepal	…	…	…	…	…	…
Sri Lanka	…	…	…	…	…	…
Southeast Asia						
Brunei Darussalam	0	0	0	0	0	0
Cambodia	0	0	19,531	53,533	174.1	…
Indonesia	49,675	95,187	259,894	403,030	55.1	323.4
Lao PDR	…	…	…	…	…	…
Malaysia	0	33,051	290,288	337,274	16.2	920.5
Philippines	0	…	…	266,654	…	…
Singapore	…	389,860	511,746	773,000	51.1	98.3
Thailand	…	…	5,174,182	294,419	–94.3	
Timor-Leste	…	2,426	…	…	…	…
Viet Nam	…	…	…	…	…	…

… = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Japan's National Tax Agency annual report, 2020.

Table A.60c: Service Contacts—Telephone Calls, FYs 2018–2021 (Part 3)

Region/Economy	Telephone Calls (number of contacts)				% Change	
	FY2018	FY2019	FY2020	FY2021	FY2021 to FY2020	FY2021 to FY2019
Central and West Asia						
Armenia	206,065	250,253	261,735	224,516	–14.2	–10.3
Azerbaijan	354,331	674,162	...	...	...	...
Georgia	315,400	351,447	387,602	427,816	10.4	21.7
Kazakhstan	262,741	300,815	...	...	...	...
Kyrgyz Republic	59,423	80,793	...	2,124	...	–97.2
Pakistan	...	...	366,713	...	...	...
Tajikistan	31,395	33,827	25,285	21,124	–16.5	–37.6
Uzbekistan	10,000	7,000	7,464	2,977	–60.1	–57.5
East Asia						
China, People's Rep. of	52,803,000	62,669,000	67,010,000	68,504,400	2.2	9.3
Hong Kong, China	1,442,000	1,505,000	1,757,000	1,902,722	8.3	26.4
Japan	5,570,000	5,440,000	5,110,000	5,820,000	13.9	7.0
Korea, Rep. of	4,407,000	4,447,000	4,342,000	3,983,119	–8.3	–10.4
Mongolia	304,154	368,019	...	371,163		0.9
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	7,820,000	7,811,000	9,971,000	8,195,637	–17.8	4.9
Cook Islands		...	...	...	...	...
Fiji	...	...	7,368	39,952	442.2	
Nauru		...	...	...	...	...
New Zealand	4,228,000	4,349,000	4,106,000	2,165,183[a]	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...
Samoa	2,491	2,180	...	...	...	...
Solomon Islands	...	...	...	...	...	...
Tonga	165	197	...	...	...	...
Vanuatu	...	...	...	...	...	...
South Asia						
Bangladesh	...	...	...	...	...	...
Bhutan	...	...	...	...	...	...
India	...	1,296,000	1,198,602	1,892,433	57.9	46.0
Maldives	42,345	36,799	30,758	44,027	43.1	19.6
Nepal	...	...	...	...	...	...
Sri Lanka	...	...	...	48,562	...	...
Southeast Asia						
Brunei Darussalam	...	...	5,000	5,000	...	...
Cambodia	...	...	...	...	...	...
Indonesia	721,910	702,999	471,686	252,302	–46.5	–64.1
Lao PDR	...	...	...	...	...	...
Malaysia	425,580	499,507	433,497	353,457	–18.5	–29.2
Philippines	61,445	75,160	51,181	26,220	–48.8	–65.1
Singapore	1,255,206	904,287	770,676	928,000	20.4	2.6
Thailand	441,759	377,173	383,483	360,887	–5.9	–4.3
Timor-Leste	...	...	...	29	...	...
Viet Nam	...	...	300,000[b]	...	...	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] New Zealand: Revenue body reported a change in reporting methodology, resulting in a lower number than reported in prior years.

[b] Viet Nam: This is an estimate provided by the revenue body.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Japan's National Tax Agency annual report, 2020.

Table A.60d: Service Contacts—E-mail Contacts, FYs 2018–2021 (Part 4)

Region/Economy	E-mail Contacts (number of contacts)				% Change	
	FY2018	FY2019	FY2020	FY2021	FY2021 to FY2020	FY2021 to FY2019
Central and West Asia						
Armenia	324	404	2,641	1,899	−28.1	370.0
Azerbaijan	...	...	...	...	...	...
Georgia	17,576	12,429	46,236	29,909	−35.3	140.6
Kazakhstan	148,608	111,084	...	...	...	...
Kyrgyz Republic	57	41	...	21	...	−50.0
Pakistan	...	....	193,721	...	...	...
Tajikistan	611	757	692	326	−52.9	−56.9
Uzbekistan	2,000	1,500	14,025	315	−97.8	−79.0
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	230,670	207,991	278,055	417,758	50.2	100.9
Japan	410	485	636	688	8.2	41.9
Korea, Rep. of	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	...	...	271,804	...	...	...
Cook Islands	...	...	...	...	...	...
Fiji	...	2,314	2,003	13,750	586.5	494.2
Nauru	...	...	31	...	...	...
New Zealand	...	...	...	1,303,436	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...
Samoa	1,230	1,110	...	...	...	...
Solomon Islands	...	30	60	...	...	...
Tonga	75	115	...	...	...	...
Vanuatu	...	...	...	...	...	...
South Asia						
Bangladesh	...	...	...	...	...	...
Bhutan	...	...	...	...	...	...
India	...	119,263	99,431	108,031	8.6	−9.4
Maldives	3,477	3,377	5,785	5,884	1.7	74.2
Nepal	...	...	...	...	...	...
Sri Lanka	...	...	...	...	...	...
Southeast Asia						
Brunei Darussalam	...	...	5,000	5,000	0.0	
Cambodia	...	...	...	...	...	...
Indonesia	56,470	81,408	188,970	61,427	−67.5	−24.5
Lao PDR	...	...	...	...	...	...
Malaysia	20,972	40,498	179,782	120,564	−32.9	197.7
Philippines	51,619	51,353	71,995	180,095	150.1	250.7
Singapore	477,786	473,640	442,246	572,000	29.3	20.8
Thailand	...	...	...	...	...	...
Timor-Leste	...	...	...	15	...	...
Viet Nam	...	...	5,000,000[a]	...	...	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] This is an estimate provided by the revenue body

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Japan's National Tax Agency annual report, 2020.

Table A.60e: Service Contacts—In-Person Contacts, FYs 2018–2021 (Part 5)

Region/Economy	In-Person Contacts (number of contacts)				% Change	
	FY2018	FY2019	FY2020	FY2021	FY2021 to FY2020	FY2021 to FY2019
Central and West Asia						
Armenia	272	297	501	537	7.2	80.8
Azerbaijan	406,882	550,537	1,022	2,049	100.5	−99.6
Georgia	298,808	313,582	551,330	506,839	−8.1	61.6
Kazakhstan	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...
Pakistan	...	...	...	...	...	...
Tajikistan	19,564	17,273	6,823	6,732	−1.3	−61.0
Uzbekistan	50	40	12,888	1,230	−90.5	2975.0
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	243,756	268,299	251,278	213,560	−15.0	−20.4
Japan	...	...	...	...	...	...
Korea, Rep. of	...	...	...	...	...	...
Mongolia	...	...	12,863	7,718	−40.0	...
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	151,849	114,455	89,952	22,193	−75.3	−80.6
Cook Islands	...	...	...	...	...	...
Fiji	...	...	3,359	343,786	10,134.8	...
Nauru	...	...	121	...	...	...
New Zealand	133,427	111,118	208,286	152,291	−26.9	37.1
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...
Samoa	2,250	2,150	751	...	...	...
Solomon Islands	...	650	800	...	...	...
Tonga	1,225	2,112	...	...	...	...
Vanuatu	...	...	...	...	...	...
South Asia						
Bangladesh	...	...	...	...	...	...
Bhutan	...	...	...	...	...	...
India	...	...	...	503	...	...
Maldives	18,492	15,405	4,952	4,022	−18.8	−73.9
Nepal	...	...	...	...	...	...
Sri Lanka	...	...	...	...	...	...
Southeast Asia						
Brunei Darussalam	...	...	...	...	...	...
Cambodia	187	1,834	788	...	...	...
Indonesia	...	...	...	6,002,120	...	...
Lao PDR	...	...	...	...	...	...
Malaysia	3,413,906	3,504,972	2,529,241	1,905,346	−24.7	−45.6
Philippines	4,629,220	4,218,518	10,444	15,238	45.9	−99.6
Singapore	104,273	62,491	51,183	13,000	−74.6	−79.2
Thailand	...	...	...	194,991	...	...
Timor-Leste	...	...	...	50	...	...
Viet Nam	...	...	125,000,000[a]	...	...	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] This is an estimate provided by the revenue body.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.60f: Service Contacts—Mail/Post Contacts, FYs 2018–2021 (Part 6)

Region/Economy	Mail/Post Incoming Service Contacts (no. of contacts)				% Change	
	2018	2019	2020	FY2021	FY2021 to FY2020	FY2021 to FY2019
Central and West Asia						
Armenia	290	443	758	455	−40.0	2.7
Azerbaijan	...	...	...	...	...	...
Georgia	16,777	21,246	28,167	18,161	−35.5	−14.5
Kazakhstan	135,784	104,256	...	...	...	...
Kyrgyz Republic	19,030	21,176	...	2,378	...	−88.8
Pakistan	...	...	...	...	...	...
Tajikistan	28,671	27,281	29,346	22,354	−23.8	−18.1
Uzbekistan	500	400	10,899	1,126	−89.7	181.5
East Asia						
China, People's Rep. of	...	...	...	...	...	...
Hong Kong, China	644,928	688,300	695,236	849,373	22.2	23.4
Japan	...	...	...	...	...	...
Korea, Rep. of	0	0	0	0	...	...
Mongolia	...	...	...	0	...	...
Taipei,China	...	...	...	...	...	...
Pacific						
Australia	...	...	1,279,893	...	...	...
Cook Islands	...	...	...	...	...	...
Fiji	...	...	...	...	...	...
Nauru	...	...	0	...	...	...
New Zealand	474,538	306,454	452,876	332,449	−26.6	8.5
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...
Samoa	...	2,910	...	...	...	...
Solomon Islands	...	150	100	...	...	...
Tonga	2,854	...	...	...	...	...
Vanuatu	...	...	...	...	...	...
South Asia						
Bangladesh	...	...	...		...	...
Bhutan	...	...	...	...	...	...
India	...	916,460	930,493	17,871	−98.1	−98.0
Maldives	17	6	0	8		33.3
Nepal	...	...	...	...	...	...
Sri Lanka	...	...	...	...	...	...
Southeast Asia						
Brunei Darussalam	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...
Indonesia	...	...	220,556	367,424	66.6	
Lao PDR		...	...	...	...	...
Malaysia	6,863	791	0	0		−100.0
Philippines	36	24	0	29		20.8
Singapore	191,372	164,810	92,004	73,000	−20.7	−55.7
Thailand	...	...	...	24,807	...	...
Timor-Leste	...	...	...	0	...	...
Viet Nam	...	...	20,000,000[a]	...	...	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] This is an estimate provided by the revenue body.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.61: Personal Income Returns, FYs 2018–2021 (% filed electronically)

Region/Economy	PIT Returns Filed Electronically (including all prefilled returns (% of all PIT returns received)				PIT Returns Fully Prefilled (% of all PIT returns received)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	100	100	100	100	0	0	0	0
Azerbaijan	92	92	95	94	0	0	0	0
Georgia	100	100	100	100	0	0	0	0
Kazakhstan	…	…	…	99	…	…	…	…
Kyrgyz Republic	2	3	35	66	0	0	0	0
Pakistan	94	97	98		0	0	0	0
Tajikistan	100	100	100	100	0	0	0	0
Uzbekistan	2	1	10	99	2	1	10	4
East Asia								
China, People's Rep. of	…	…	…	99[a]	…	…	…	…
Hong Kong, China	20	22	24	27	0	0	0	0
Japan	…	…	…	55	0	0	0	0
Korea, Rep. of	99	99	99	99	16	19	…	33
Mongolia	100	100	100	100	0	0	0	0
Taipei,China	97	98	98	97	33	34	30	26
Pacific								
Australia	97[b]	97[b]	98[b]	99	…	…	…	1
Cook Islands	7	21	21	32	0	0	0	0
Fiji	0	0	0	0	0	0	0	0
Nauru	0	0	0	0	0	0	0	0
New Zealand	98	98	99	99	66	66	74	71
Palau	0	0	0	0	0	0	0	0
Papua New Guinea	0	0	…	…	0	0	…	…
Samoa	0	0	0	0	0	0	0	0
Solomon Islands	0	<1	3	16	0	0	0	0
Vanuatu	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Asia								
Bangladesh	0	0	0	0	0	0	0	0
Bhutan	…	…	…	54	0	0	0	0
India	99	99	99	100	0	0	0	0
Maldives	n.a.	n.a.	63	79	n.a.	n.a.	0	0
Nepal	100	100	100	100	0	0	0	0
Sri Lanka	8	…	24	45	0	0	0	0
Southeast Asia								
Brunei Darussalam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	…	…	…	…	…	…	…	…
Indonesia	85[c]	93[c]	94[c]	92	0	0	0	0
Lao PDR	…	…	…	…	0	0	0	0
Malaysia	97	98	99	98	0	0	0	0
Philippines	21	36	96	96	0	0	0	0
Singapore	98	98	99	99	63	63	85	81
Thailand	80	82	96	76	0	0	0	0
Timor-Leste	0	0	0	0	0	0	0	0
Viet Nam	99	99	…	…	0	0	0	0

… = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, PIT = personal income tax.

[a] People's Republic of China: Revenue body unable to segment online filing by tax type and reported an overall online filing rate.
[b] Australia: Owing to gaps in ISORA reporting, data sourced from revenue body's annual report.
[c] Indonesia: Composite rate for both corporations and individuals.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; ATO annual report, 2020; Indonesia Directorate General of Taxes annual report, 2019.

Table A.62: Corporate Income Tax and VAT Returns, FYs 2018–2021 (% filed electronically)

Region/Economy	Corporate Income Tax Returns Filed Electronically (% of all returns received)				VAT Returns Filed Electronically (% of all returns received)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	100	100	100	100	100	100	100	100
Azerbaijan	99	99	99	99	97	100	...	99
Georgia	100	100	100	100	100	100	100	100
Kazakhstan	...	...	...	99	...	...	...	...
Kyrgyz Republic	18	28	28	99	16	34	...	...
Pakistan	99	100	100	100	100	100	100	100
Tajikistan	100	100	100	100	100	100	100	100
Uzbekistan	100	100	100	100	100	100	100	100
East Asia								
China, People's Rep. of	...	...	...	99[a]	...	...	...	99[a]
Hong Kong, China	<1	<1	<1	<1	n.a.	n.a.	n.a.	n.a.
Japan	73	77	80	87	75	76	76	86[b]
Korea, Rep. of	97	98	99	99	...	...	...	96
Mongolia	100	100	100	100	100	100	100	100
Taipei,China	99	99	100	100	95	96	96	96
Pacific								
Australia[c]	94	95	95	96	82	85	88	90
Cook Islands	5	25	25	39	87	59	58	64
Fiji	0	0	0	0	0	0	0	80
Nauru	100	100	...	0	0	0	0	0
New Zealand	94	95	95	99	86	91	94	96
Palau	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Papua New Guinea	0	0	...	...	0	0	...	...
Samoa	0	0	0	0	0	0	0	0
Solomon Islands	0	0	2	18	n.a.	n.a.	n.a.	n.a.
Vanuatu	n.a.	n.a.	n.a.	n.a.	0	0	0	0
South Asia								
Bangladesh	0	0	0	0	0	0	39	...
Bhutan	...	44	58	69	n.a.	n.a.	n.a.	n.a.
India	100	100	100	100	...	...	...	100
Maldives	23	38	73	84	52	66	82	91
Nepal	100	100	100	100	100	100	100	100
Sri Lanka	16	...	73	100	0	...	42	92
Southeast Asia								
Brunei Darussalam	...	...	100	100	n.a.	n.a.	n.a.	n.a.
Cambodia	...	...	83	...	...	...	28	...
Indonesia	85[d]	93[d]	94[d]	88	100	100	100	...
Lao PDR	...	...	52	...	....	....	53	...
Malaysia	100	100	100	100	n.a.	n.a.	n.a.	n.a.
Philippines	80	89	99	94	89	92	97	96
Singapore	70	78	91	100	99	99	99	99
Thailand	45	51	58	74	54	58	66	75
Timor-Leste	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Viet Nam	97	98	...	98	98	98	...	99

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic, n.a. = not applicable, VAT = value-added tax.

[a] People's Republic of China: Revenue body unable to segment online filing by tax type and reported an overall rate.

[b] Japan: For 2021, the VAT e-filing rate refers to returns filed online by corporate taxpayers; the VAT e-filing rate for other taxpayers is 67.8%.

[c] Australia: Owing to gaps in ISORA reporting, data were sourced from revenue body's annual report.

[d] Indonesia: Composite rate for both corporations and individuals.

Sources: ISORA 2020; ISORA 2021; ISORA 2022; Indonesia Directorate General of Taxes annual report. 2019.

Table A.63: Tax Payments Received Electronically by Revenue Bodies, FYs 2018–2021

Region/Economy	Payments Received Electronically (% of total number received)				Payments Received Electronically (% of total value received)			
	FY2018	FY2019	FY2020	FY2021	FY2018	FY2019	FY2020	FY2021
Central and West Asia								
Armenia	...	...	100	100	...	...	100	100
Azerbaijan	...	...	...	...	...	...	...	...
Georgia	100	100	100	100	100	100	100	100
Kazakhstan	...	...	98	...	...	...	98	...
Kyrgyz Republic	100	100	100	...	100	100	100	...
Pakistan	99	92	80	80	...	...	80	80
Tajikistan	...	...	100	100	100	100	100	100
Uzbekistan	...	...	...	...	29	34	...	...
East Asia								
China, People's Rep. of	84	88	91	100	79	81	92	95
Hong Kong, China	55	56	68	69	23	21	20	30
Japan	23	26	29	32	...	...	...	...
Korea, Rep. of	69	76	81	85	46	50	56	58
Mongolia	...	...	97	100	...	...	94	100
Taipei,China	51	51	53	55	13	12	13	12
Pacific								
Australia	...	...	99	99	...	...	99	100
Cook Islands	17	25	30	37	15	21	24	32
Fiji	10	10	13	44	12	15	21	44
Nauru	82	68	97	...	...	...	...	...
New Zealand	91[a]	93[a]	95	98	97[a]	97[a]	97	99
Palau	...	...	...	...	...	...	1	...
Papua New Guinea	75	80	78	90	85	85	50	85
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	...	...	25	25	...	...	20	43
Tonga	1	2	...	...	2	4	...	...
Vanuatu	...	...	...	...	...	...	...	...
South Asia								
Bangladesh	100	...	...	...	100	...	...	...
Bhutan	...	...	...	100	...	...	...	100
India	...	...	...	...	...	...	...	...
Maldives	76	81	75	87	76	81	89	99
Nepal	...	...	...	15	...	...	...	3
Sri Lanka	...	...	...	...	...	...	...	...
Southeast Asia								
Brunei Darussalam	...	...	31	31	...	...	38	41
Cambodia	...	...	3	...	...	...	1	...
Indonesia	100	100	...	100	100	100	...	100
Lao PDR	...	...	76	54	...	...	...	87
Malaysia	44	56	72	87	47	52	60	69
Philippines	15	17	30	...	84	84	85	84
Singapore	97	98	98	99	84	86	89	91
Thailand	...	44	67	72	...	60	56	72
Timor-Leste	...	...	...	...	...	...	...	...
Viet Nam	10	11	...	...	47	55	80	...

... = no data at cut-off date, FY = fiscal year, Lao PDR = Lao People's Democratic Republic.

[a] Data refer only to Goods and Services Tax payments.

Sources: ISORA 2020; ISORA 2021; ISORA 2022.

Table A.64: Selected Measures and Approaches for Managing Taxpayers' Compliance, FY2021

| | Selected Measures and Approaches Used in Revenue Administration in FY 2021 | | | | | |
| | Behavioral Insight Techniques | Electronic Invoice Mechanism[a] | Electronic Fiscal Devices/ Cash Registers[a] | Formal Cooperative Compliance Policies | | |
Region/Economy				Large Taxpayers	HNWIs	Other Taxpayers
Central and West Asia						
Armenia	✓	✓	✓	X	X	X
Azerbaijan	X	✓	✓	X	X	X
Georgia	X	✓	✓	✓	X	X
Kazakhstan	✓	✓	✓	✓	X	X
Kyrgyz Republic	X	X	X	✓	✓	X
Pakistan	✓	✓	✓	✓	X	X
Tajikistan	✓	✓	✓	✓	✓	...
Uzbekistan	✓	✓	✓	✓	X	✓
East Asia						
China, People's Rep. of	✓	X	✓	✓	X	X
Hong Kong, China	X	X	X	X	X	X
Japan	✓	X	X	✓	X	X
Korea, Rep. of	X	✓	✓	X	X	✓
Mongolia	✓	✓	✓	✓	X	✓
Taipei,China	X	✓	X	X	X	X
Pacific						
Australia	✓	X	X	✓	✓	X
Cook Islands	X	X	X	X	X	X
Fiji	X	✓	✓	✓	X	X
Nauru	X	X	X	X	X	X
New Zealand	✓	X	X	✓	✓	✓
Palau	X	X	X	X	X	X
Papua New Guinea	X	X	X	✓	✓	X
Samoa	✓	✓	✓	✓	X	✓
Solomon Islands	X	X	X	X	X	X
Tonga	X	✓	✓	✓	✓	✓
Vanuatu	✓	X	✓	✓	X	✓
South Asia						
Bangladesh	X	X	X	X	X	X
Bhutan	✓	X	✓	X	X	X
India	✓	✓	X	✓	✓	✓
Maldives	X	X	X	✓	X	✓
Nepal	X	✓	✓	✓	X	✓
Sri Lanka	X	X	X	X	X	X
Southeast Asia						
Brunei Darussalam	X	X	X	X	X	X
Cambodia	X	X	X	✓	X	X
Indonesia	✓	✓	X	✓	✓	✓
Lao PDR	✓	✓	✓	✓	X	X
Malaysia	✓	X	X	X	X	X
Philippines	X	✓	X	X	X	X
Singapore	✓	X	X	✓	X	X
Thailand	X	X	X	X	X	X
Timor–Leste	X	X	X	X	X	X
Viet Nam	✓	✓	X	✓	✓	✓

... = no data at cut-off date, ✓ = relevant, X = not relevant, FY = fiscal year, HNWI = high net wealth individual, Lao PDR = Lao People's Democratic Republic.

[a] Use of these measures is mandatory for tax purposes by all or certain designated taxpayers.

Source: ISORA 2022.

Table A.65a: Development and Use of Technologies by Revenue Bodies, FY2021 (Part 1)

Region/Economy	Method for Acquiring Operational ICT Solutions			Status with Use of Innovative Technologies[a]		
	Custom Built	Commercial Off the Shelf	Software as a Service (cloud-based)	Distributed Ledger/ Blockchain	Artificial Intelligence	Cloud Technology
Central and West Asia						
Armenia	✓	X	X	–	Implementing	–
Azerbaijan	✓	✓	✓	–	Operational	–
Georgia	✓	X	X	Implementing	Implementing	–
Kazakhstan	✓	✓	✓	Implementing	Implementing	Implementing
Kyrgyz Republic	✓	X	X	–	–	–
Pakistan	✓	X	X	–	Operational	Operational
Tajikistan	X	✓	X	–	Implementing	Operational
Uzbekistan	✓	✓	✓	–	Implementing	Implementing
East Asia						
China, People's Rep. of	✓	✓	✓	Implementing	Implementing	Operational
Hong Kong, China	✓	✓	X	–	–	Operational
Japan	✓	X	X	–	Operational	Operational
Korea, Rep. of	✓	X	X	–	Operational	–
Mongolia	✓	✓	X	–	Operational	Operational
Taipei,China	✓	X	X	–	Operational	Operational
Pacific						
Australia	✓	✓	✓	–	Operational	Operational
Cook Islands	X	✓	X	–	–	–
Fiji	✓	X	X	–	–	Operational
Nauru	X	X	X	–	–	–
New Zealand	✓	✓	X	–	–	Operational
Palau	✓	X	X	–	–	–
Papua New Guinea	✓	✓	X	–	–	Implementing
Samoa	✓	✓	✓	–	–	–
Solomon Islands	X	✓	X	–	–	–
Tonga	X	✓	X	–	–	–
Vanuatu	X	X	X	–	–	–
South Asia					–	
Bangladesh	X	X	X	–	–	–
Bhutan	✓	X	X	–	–	–
India	✓	X	✓	–	Implementing	Operational
Maldives	✓	✓	X	–	–	–
Nepal	✓	✓	X	–	–	–
Sri Lanka	✓	X	X	–	–	–
Southeast Asia						
Brunei Darussalam	✓	X	X	–	–	–
Cambodia	✓	X	X	–	–	–
Indonesia	✓	✓	X	–	Operational	Operational
Lao PDR	X	X	✓	–	–	–
Malaysia	✓	X	✓	–	Operational	Operational
Philippines	✓	✓	✓	–		–
Singapore	✓	✓	✓	–	Operational	Operational
Thailand	✓	✓	X	Operational	Implementing	Operational
Timor-Leste	✓	X	✓	–	–	–
Viet Nam	✓	✓	X	–	Implementing	Operational

✓ = relevant, X = not relevant, FY = fiscal year, ICT = information and communication technology, Lao PDR = Lao People's Democratic Republic.

[a] A brief description of each of the innovative technologies indicated can be found in Chapter 4.

Source: ISORA 2022.

Table A.65b: Development and Use of Technologies by Revenue Bodies, FY2021 (Part 2)

Region/Economy	Status with Use of Innovative Technologies[a]					
	Data Science/ Analytics Tools	Robotics Process Automation	Application Programming Interfaces	Whole of Government ID System	Digital Authentication Technology	Virtual Assistants
Central and West Asia						
Armenia	Operational	–	Operational	Operational	–	Implementing
Azerbaijan	Implementing	–	Operational	Operational	Implementing	–
Georgia	Implementing	Operational	Operational	Implementing	Operational	Implementing
Kazakhstan	Implementing	Implementing	Operational	Operational	Implementing	Operational
Kyrgyz Republic	Operational	Operational	Operational	Operational	–	–
Pakistan	–	–	Operational	–	Operational	–
Tajikistan	Operational	–	Operational	–	–	Operational
Uzbekistan	Implementing	Implementing	Operational	Operational	Operational	Implementing
East Asia						
China, People's Rep. of	Operational	–	Operational	–	Operational	Operational
Hong Kong, China	Operational	–	Operational	Operational	Operational	–
Japan	Operational	Operational	Operational	Operational	Operational	Operational
Korea, Rep. of	Operational	–	Operational	Operational	Operational	Operational
Mongolia	Operational	–	Operational	Operational	–	Operational
Taipei,China	Operational	Operational	Operational	Operational	Operational	Operational
Pacific						
Australia	Operational	Operational	Operational	Operational	Operational	Operational
Cook Islands	Implementing	–	Implementing	–	–	–
Fiji	Operational	–	Implementing	–	–	–
Nauru	–	–	–	–	–	–
New Zealand	Operational	–	Operational	Operational	Operational	–
Palau	–	–	–	–	–	–
Papua New Guinea	Implementing	Implementing	Implementing	–	–	Implementing
Samoa	–	–	Operational	–	–	–
Solomon Islands	–	–	Operational	–	–	–
Tonga	–	–	–	–	–	–
Vanuatu	–	–	Operational	Operational	–	–
South Asia						
Bangladesh	–	–	Operational	Operational	–	–
Bhutan	–	–	Operational	Operational	–	–
India	Implementing	Operational	Operational	–	–	Operational
Maldives	–	–	Operational	Implementing	–	–
Nepal	Implementing	–	Operational	–	Operational	Operational
Sri Lanka	–	–	–	–	–	–
Southeast Asia						
Brunei Darussalam	–	–	–	–	–	–
Cambodia	–	–	Operational	Implementing	Operational	–
Indonesia	Operational	Implementing	Operational	Implementing	Operational	[b]
Lao PDR	–	–	Operational	–	–	–
Malaysia	Operational	–	Operational	Operational	Operational	Operational
Philippines	–	–	Operational	–	–	Operational
Singapore	Operational	Operational	Operational	Operational	Operational	Operational
Thailand	Operational	–	Operational	Implementing	Operational	Operational
Timor-Leste	–	–	Implementing	Implementing	–	Implementing
Viet Nam	Implementing	Implementing	Operational	Operational	Operational	Operational

– = no data at cut-off date, FY = fiscal year, ID = identification, Lao PDR = Lao People's Democratic Republic.
[a] A brief description of each of the innovative technologies indicated can be found in Chapter 4.
[b] Expected to be operational by December 2022.
Source: ISORA 2022.

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