# 1 Tax revenue trends in Asian and Pacific economies

Chapter 1 provides information on trends in tax and non-tax revenues in 21 Asian and Pacific economies, including changes in tax-to-GDP ratios, tax structures, taxes by level of government and non-tax revenue structures.

Achieving the Sustainable Development Goals in the 2030 Agenda for Sustainable Development requires mobilising additional resources – in particular government revenues – to fund public goods and services in developing countries. Taxation provides the largest share of government revenues in almost all countries and is relatively predictable and sustainable, in contrast with non-tax revenue sources such as official development assistance and royalties.

Revenue Statistics in Asian and Pacific Economies 2020 is published at a time when the world confronts an unprecedented crisis as a result of the coronavirus (COVID-19) pandemic, which has posed severe challenges to health systems and economies across the Asia and Pacific region, as well as to citizens themselves. Chapter 2 of this report examines the ways in which tax revenues across the region will be affected by the pandemic, as well as the central role that tax policy and administration play in supporting households and individuals during the crisis, and stimulating economic and fiscal recovery once it has passed. Data on fiscal revenues discussed in Chapter 1 demonstrate the strength of the region's tax systems going into the crisis and are thus a valuable tool not only for understanding how the crisis might affect different countries, but also for supporting countries to build more resilient fiscal systems in its aftermath.

This report presents detailed and internationally comparable data on tax revenues in 21 Asian and Pacific economies: Australia, Bhutan, People's Republic of China (hereafter "China"), the Cook Islands, Fiji, Indonesia, Japan, Kazakhstan, Korea, Malaysia, Mongolia, Nauru, New Zealand, Papua New Guinea, the Philippines, Samoa, Singapore, the Solomon Islands, Thailand, Tokelau and Vanuatu. It also provides

information on non-tax revenues for Bhutan, the Cook Islands, Fiji, Kazakhstan, Mongolia, Nauru, Papua New Guinea, the Philippines, Samoa, Thailand, Tokelau and Vanuatu. This chapter discusses key tax indicators for these 21 economies: the tax-to-GDP ratio; the tax structure and the share of tax revenue by level of government; and non-tax revenue for selected economies. The discussion is supplemented by detailed information for each economy in Chapters 4 and 5.

#### Tax ratios

#### Tax-to-GDP ratios in 2018

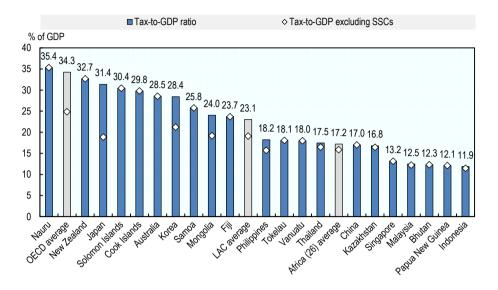
In 2018, tax-to-GDP ratios in the Asia and Pacific region ranged from 11.9% in Indonesia to 35.4% in Nauru (Figure 1.1). Ten of the 21 economies had tax-to-GDP ratios above the Latin American and the Caribbean (LAC) average of 23.1% in 2018, and all economies in the publication had lower ratios than the OECD average of 34.3%, with the exception of Nauru. Most of the Asian countries covered in this report had a tax-to-GDP ratio below 20%, with the exceptions of Japan (31.4%, 2017 figure), Korea (28.4%) and Mongolia (24.0%). Among the Pacific economies, seven of the ten included in this publication had a tax-to-GDP ratio above 23%, with the exception of Papua New Guinea (12.1%), Vanuatu (18.0%) and Tokelau (18.1%).

The tax-to-GDP ratio measures tax revenues as a proportion of gross domestic product (GDP). Taxes are defined as compulsory, unrequited payments to general government. In the OECD classification, taxes are classified by the base of the tax and include taxes on incomes and profits, compulsory social security contributions (SSCs) paid to the general government, taxes on payroll and workforce, taxes on property, taxes on goods and services and other taxes.

Tax-to-GDP ratios in Asian and Pacific economies, exclusive of SSCs, are shown in Figure 1.1. In countries that levy social security contributions, the tax-to-GDP ratios exclusive of SSCs range from 11.5% of GDP in Indonesia to 21.2% of GDP in Korea in 2018. Six countries in Asia had tax-to-GDP ratios exclusive of SSCs between 15% and 20% of GDP (the Philippines (15.7%), Kazakhstan (16.4%), Thailand (16.5%), China (17.0%), Japan (18.8%) and Mongolia (19.2%)], while four countries had tax-to-GDP ratios exclusive of SSCs below 15% (Indonesia (11.5%), Malaysia (12.2%), Bhutan (12.3%) and Singapore (13.2%)). While excluding revenues from social security contributions does not impact the tax-to-GDP ratios in Pacific economies, where SSCs are rarely used, it plays a more significant role in the ratios of all Asian economies except Bhutan.

Figure 1.1. Tax-to-GDP ratios in Asian and Pacific economies, including and excluding social security contributions (2018)

#### Percentage of GDP



Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019<sub>[1]</sub>).

2017 data are used for the Africa (26) average, Australia and Japan, as 2018 data are not available.

The tax-to-GDP ratio for China does not include revenue from social security contributions (SSCs) as detailed data were not available. The OECD Secretariat estimates SSCs to be approximately 4.0% of GDP in 2018 based on publicly available data from China's Ministry of Human Resources and Social Security (MOHRSS, 2015<sub>[2]</sub>; MOHRSS, 2016<sub>[3]</sub>; MOHRSS, 2017<sub>[4]</sub>; MOHRSS, 2020<sub>[5]</sub>). Source: Authors' calculations based on Table 3.1 in Chapter 3.

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Structural economic factors are a key determinant of tax-to-GDP ratios across economies. These include the importance of agriculture in the economy, openness to trade and the size of the informal economy. Agriculture, for example, is a challenging sector to tax: most people in the agriculture sector in developing economies are on low incomes and many are not registered for tax purposes (PEAKS, 2013<sub>[6]</sub>). In addition, agriculture benefits from numerous tax exemptions. For example, Malaysia allows an agriculture allowance to be deducted from profits of eligible businesses (Inland Revenue Board of Malaysia, 2016<sub>[7]</sub>), and goods and services related to the agriculture sector are exempt from import duty and excise duty (Ministry of International Trade and Industry of Malaysia, 2016<sub>[8]</sub>).

In addition to structural economic factors, tax policy and tax administration settings also strongly influence the level of tax revenues. These include the power of tax administrations, the levels of corruption within these administrations and tax morale (i.e. willingness of people to pay taxes) (OECD, 2014[9]). For example, Aizenman (2015[10]) found that in Asia, government effectiveness and institution quality are positively correlated with the level of tax-to-GDP ratio. Finally, in general, GDP per capita is also related to tax-to-GDP ratios. Tax-to-GDP ratios tend to be higher in high-income economies, although the relationship is not direct and is less pronounced at lower levels of income due to the influence of other factors. It is in particular less pronounced in Asian and Pacific economies (Figure 1.2).

The proportion of agriculture in an economy also influences its tax-to-GDP ratio. For example, a relatively high share of agriculture in Indonesia's economy (above 10% of GDP) compared to the other Asian countries in this publication, as well as a low openness to trade, contribute to its low tax-to-GDP ratio, together with high levels of informality (estimated to amount to around 57.6% of employment), tax evasion and narrow tax bases (OECD, 2019[11]). Indonesia has undertaken reforms to strengthen tax administration, increase tax revenues and reduce its dependence on oil revenues. It has set a goal of increasing its tax-to-GDP ratio to 17% of GDP by 2019 (OECD, 2018[12]). These reforms have focused on modernising processes and systems, building human capacity and enhancing the tax administration's integrity (OECD, 2018[12]). Since 2014, Indonesia has also reformed its social insurance system. It has created or restructured several social security programmes, including work accident insurance and pensions for formal and non-formal workers. A new health insurance programme for all Indonesians covered 78% of the population in 2018 (OECD, 2019[11]). More details are provided further in the chapter.

The relationship between GDP per capita and tax levels across the Asian and Pacific economies in this publication is less direct than that observed across LAC or OECD countries. Six Asian and Pacific economies (China, Fiji, Kazakhstan, Mongolia, Samoa and Thailand) have broadly similar GDP per capita and tax-to-GDP ratios as the majority of LAC countries. Papua New Guinea, Vanuatu and the Solomon Islands have similar per capita levels of income but their tax-to-GDP ratios differ markedly. In contrast, Australia, Japan, Korea and New Zealand have higher per capita income and tax-to-GDP ratios. Finally, Singapore has the highest GDP per capita of the 21 economies considered here and one of the lowest tax-to-GDP ratios. The high GDP per capita in Singapore results from significant inward flows of foreign direct investment (FDI) due to its attractive business climate and stable political environment (UNCTAD, 2012<sub>[13]</sub>), whereas the tax-to-GDP ratio is explained by lower income tax rates (particularly on corporate income) and value added tax (VAT) rates compared to other Asian and Pacific economies (UNESCAP, 2014<sub>[14]</sub>).

### Box 1.1. Enhancing domestic resource mobilisation in Small Island Developing States through revenue statistics

Small Island Developing States (SIDS) comprise a diverse group of the smallest and most remote economies in the world. They are located across the African, Asian, Latin American and the Caribbean, and Pacific regions. They share a common and unique set of development challenges owing to their small populations and landmasses, spatial dispersion and remoteness from major markets, and exposure to severe climate-related events and natural disasters. With small and undiversified economies, SIDS are highly vulnerable to external shocks, as they rely strongly on the global economy for financial services, tourism, remittances and concessional finance.

One common challenge faced by SIDS is the achievement of adequate domestic resource mobilisation and debt sustainability. Domestic revenues are often erratic due to narrow economic productive bases, often concentrated in sectors that are exposed to external fluctuations, such as natural resources or tourism. At the same time, SIDS typically have large current expenditures, as the high unit costs of providing services to small and scattered populations increase public sector expenditures above the average levels of other developing countries [31.7% of GDP in SIDS, compared to 21.3% in other developing countries (World Bank, 2020[18])]. Severe climate events and natural disasters also tend to have heavy fiscal and economic impacts. These factors lead to high levels of public debt for many SIDS [59.5% of GDP, compared to 44.6% for other developing countries (World Bank, 2020[19])] and reduce the fiscal space to invest in development.

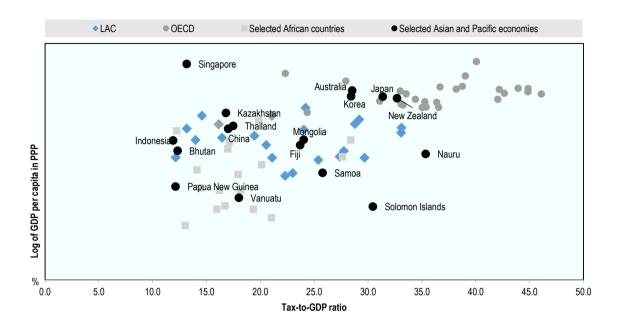
Taxes are an important and relatively more stable source of revenues in many SIDS, although economies' ability to raise domestic revenues varies significantly. The *Global Revenue Statistics* publications and database (OECD, 2020<sub>[20]</sub>) show that among the Pacific SIDS, tax-to-GDP ratios ranged from 12.1% in Papua New Guinea to 35.4% in Nauru in 2018. Among African SIDS, Cabo Verde had a tax-to-GDP ratio of 20.1%, Mauritius of 19.8% and Seychelles of 31.5% in 2017 (OECD/ATAF/AUC, 2019<sub>[21]</sub>). Finally, SIDS in Latin America and the Caribbean had the biggest variation, from Dominican Republic's tax-to-GDP ratio of 13.2% to Cuba's ratio of 42.3% in 2018 (OECD et al., 2020<sub>[22]</sub>).

SIDS' ability to mobilise and improve the stability of domestic revenues may be hampered in future years due to the impact of the COVID-19 pandemic. Public revenues in SIDS may be affected by the crisis via a variety of channels, most notably the sharp decline in global and domestic trade (as many SIDS have a high share of revenues coming from taxes on goods and services), declines in commodity and natural resource prices, and the fall of tourism activity. To recover from the COVID-19 crisis, enhanced management of key sectors, including fisheries, tourism and natural resource extraction, may provide opportunities to enhance domestic revenue mobilisation in SIDS. Policies to reduce "leakages" from these sectors – especially tourism – and to support backward and forward linkages with other domestic sectors (e.g. food and agriculture, consumer goods and construction) could expand the taxable production base.

Improving the efficiency of revenue collection, enlarging the tax base and employing efficient tax policies are also essential to increase the resources required to sustain development. The *Global Revenue Statistics* project supports 20 SIDS in these efforts by providing accurate, comparable and detailed data on their tax revenues. This information is essential for tax policymaking and administrative reforms, and forms a common evidence base for mutual learning across SIDS on how to scale up domestic resource mobilisation. The OECD is deepening analysis on the role of domestic revenue mobilisation in financing sustainable development in SIDS.

Source: Piera Tortora and Talita Yamashiro Fordelone, based on OECD (2018[23]), (World Bank, 2020[19]), (World Bank, 2020[19]) and on the Global Revenue Statistics database (OECD, 2020[20]).

Figure 1.2. Tax-to-GDP ratios and GDP per capita (in PPP) in Asian and Pacific economies, Latin America and the Caribbean, OECD and African countries (2018)



Notes: The y-axis is on a logarithmic scale.

Source: The tax-to-GDP ratio for China does not include revenue from social security contributions (SSCs) as detailed data were not available. The OECD Secretariat estimates SSCs to be approximately 4.0% of GDP in 2018 based on publicly available data from China's Ministry of Human Resources and Social Security.

The Cook Islands and Tokelau are excluded as GDP per capita data was unavailable for these countries.

The purchasing power parity (PPP) between two countries is the rate at which the currency of one country needs to be converted into that of a second country to ensure that a given amount of the first country's currency will purchase the same volume of goods and services in the second country as it does in the first. The implied PPP conversion rate is expressed as national currency per current international dollar. An international dollar has the same purchasing power as the US dollar has in the United States. An international dollar is a hypothetical currency that is used as a means of translating and comparing costs from one country to the other using a common reference point, the US dollar (definitions derived from (IMF, 2019<sub>[15]</sub>) and (WHO, 2015<sub>[16]</sub>)).

Source: GDP per capita from World Economic Outlook, April 2020 (IMF, 2020<sub>[17]</sub>)

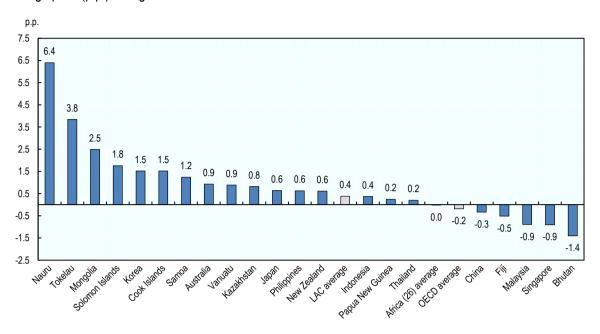
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#### Changes in tax-to-GDP ratios in 2018

Since 2017, more than two-thirds of the economies in this publication for which 2018 data are available have experienced increases in their tax-to-GDP ratios (Figure 1.3). Fourteen economies had higher tax-to-GDP ratios in 2018 relative to 2017, whereas five had lower ratios than in 2017. The largest increases were seen in Nauru, Tokelau and Mongolia, at 6.4 percentage points (p.p.), 3.8 p.p. and 2.5 p.p., respectively. Four other economies had increases greater than 1 p.p. (the Solomon Islands, 1.8 p.p.; Korea and the Cook Islands, both at 1.5 p.p.; and Samoa, 1.2 p.p.). Most of the decreases between 2017 and 2018 were less than 1 p.p.: Fiji decreased by 0.5 p.p., Malaysia and Singapore both by 0.9 p.p., with only Bhutan experiencing a larger decrease of 1.4 p.p.

Figure 1.3. Annual changes in tax-to-GDP ratios (2017-18)

Percentage point (p.p.) change



Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019<sub>[24]</sub>).

Data for the change between 2016 and 2017 are used for the Africa (26) average, Australia and Japan.

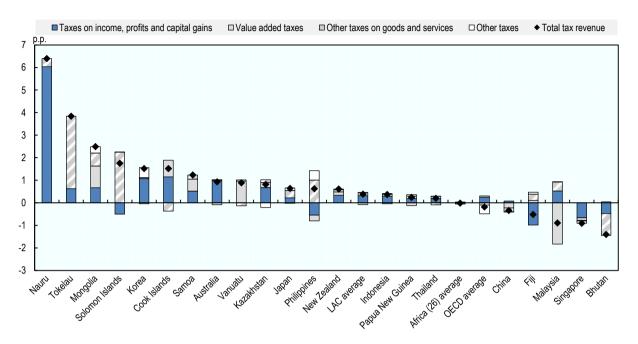
The tax-to-GDP ratio for China does not include revenue from social security contributions as detailed data were not available. Source: Authors' calculations based on Table 3.1 in Chapter 3.

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Different factors accounted for the large increases in tax-to-GDP ratios of Nauru, Tokelau and Mongolia between 2017 and 2018 (Figure 1.4). In Mongolia, increases of personal income tax (PIT) rates, as well as several increases in the rates on tobacco and alcohol, contributed to the increase of 2.5 p.p. in the taxto-GDP ratio between 2017 and 2018 (news.mn, 2018[25]). Value added taxes (VAT) contributed the most due to a 23% decrease in VAT refunds in 2018. This decrease was due to a timing issue with a large VAT reimbursement, requested in December 2018 and processed in 2019, so consequently not included in the 2018 data. The second largest increase was seen in Tokelau, where, to reach the policy goal of being tobacco free in 2020 (Tokelau, 2017<sub>[26]</sub>), Tokelau increased tobacco duties,<sup>2</sup> leading to a rise in taxto-GDP ratios of 3.8 p.p. in 2018. The largest increase occurred in Nauru, mostly due to higher revenue from income taxes, which increased by 6.0 p.p. in 2018. These increases were due to higher employment tax rates for non-residents, service tax rates and various business tax rates (Nauru, 2019[27]). Due to the government's commitment to a positive fiscal budget and expected decreases in revenues from the Regional Processing Centre (RPC) and from phosphate mining, the government has been seeking to increase tax revenues to offset possible future declines in public revenues, including by increasing various tax rates (IMF, 2020<sub>[28]</sub>). The remaining increases of 0.4 p.p. in other taxes on goods and services were the result of higher revenue from the passenger levy, departure tax and the telecom tax.

Figure 1.4. Net changes in tax-to-GDP ratios between 2017 and 2018 by main type of tax

Percentage point (p.p.) change



Notes: The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted.

Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019[1]).

2017 data are used for the Africa (26) average, Australia and Japan.

The tax-to-GDP ratio for China does not include revenue from social security contributions as detailed data were not available.

Source: Authors' calculations based on (OECD, 2020[29]), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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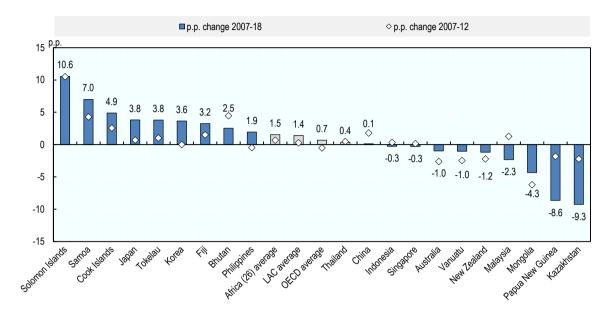
A variety of factors drove the decreases in tax-to-GDP ratios in Malaysia, Singapore and Bhutan between 2017 and 2018. Malaysia changed the standard rate of the goods and services tax (GST) – introduced in 2015 – from 6% to 0%, resulting in a large decrease from revenues on goods and services, and reintroduced the sales tax and service tax (ASEAN, 2018<sub>[30]</sub>). Revenues from VAT thus decreased by 1.8 p.p. in 2018 and were offset only partially by increases in revenue from income taxes (0.5 p.p.) and other taxes of goods and services (0.4 p.p.). The second largest decrease in tax-to-GDP ratios occurred in Singapore: revenues from income taxes decreased by 0.7 p.p. because of lower revenue from statutory board contributions, which had been exceptionally high in 2017 due to a surplus generated by the Monetary Authority of Singapore, and have since returned to previous levels (Business Times, 2018<sub>[31]</sub>). The largest decrease in tax-to-GDP ratios occurred in Bhutan, where revenues from income taxes decreased by 0.5 p.p. and revenues from other taxes on goods and services fell by 1.0 p.p. in 2018. This was due to the removal of the excise duty on fuel imports from India (Bhutanese, 2017<sub>[32]</sub>), decreasing revenue from other taxes on goods and services.

#### Evolution of tax-to-GDP ratios since 2007

Across a longer time horizon, 11 economies in the publication have increased their tax-to-GDP ratios since 2007 (OECD, 2019<sub>[24]</sub>),<sup>3</sup> whereas 9 have not (Figure 1.5).

Figure 1.5. Changes in tax-to-GDP ratios (2007-18 and 2007-12)

Percentage point (p.p.) change



Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019[1]).

2017 data are used for the Africa (26) average, Australia, Japan and the OECD average.

Data for the Africa (26) average, Bhutan and Fiji start in 2008.

The tax-to-GDP ratio for China does not include revenue from social security contributions as detailed data were not available.

Data for Nauru are only available from 2014 onwards and therefore excluded from this graph.

Source: Authors' calculations based on Table 3.1 in Chapter 3.

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Across the period, the largest decreases in tax-to-GDP ratios were observed in Mongolia, Papua New Guinea and Kazakhstan (by 4.3 p.p., 8.6 p.p. and 9.3 p.p., respectively), which were affected by the fall in mineral resource prices between 2007 and 2018. By contrast, the tax-to-GDP ratios of the Solomon Islands, Samoa and the Cook Islands grew by over 4.5 p.p. during the same period. The change in the tax-to-GDP ratios for the remaining economies ranged from a decrease of 2.3 p.p. in Malaysia to an increase of 3.8 p.p. in Japan and Tokelau.

Across the Asian countries included in the publication, the change in tax-to-GDP ratios ranged from - 9.3 p.p. in Kazakhstan to 3.8 p.p. in Japan, with ratios increasing in 6 of the 11 Asian economies considered here and decreasing in 5. Across the Pacific economies in this publication for which data were available between 2007 and 2018, tax-to-GDP ratio changes ranged from -8.6 p.p. in Papua New Guinea to 10.6 p.p. in the Solomon Islands. The distribution of changes across the period was similar to those of the Asian economies: ratios decreased in 4 Pacific Island economies and increased in 5.

#### Changes in tax-to-GDP ratios between 2007 and 2018, by tax category

Between 2007 and 2018, corporate income tax (CIT) revenues were the driver of the major decreases observed in tax-to-GDP ratios in many economies, whereas other taxes on goods and services contributed

to several of the increases, although to a lesser extent (Figure 1.6). These changes reflect a diverse range of policy measures and economic developments in Asian and Pacific economies over this period.

Of the nine economies where tax-to-GDP ratios declined between 2007 and 2018, lower CIT revenues contributed in six. The declines in the tax-to-GDP ratios in Mongolia (4.3 p.p.), Papua New Guinea (8.6 p.p.) and Kazakhstan (9.3 p.p.) resulted from lower CIT revenues, which decreased by 7.6 p.p., 7.9 p.p. and 7.2 p.p., respectively. As noted, the three economies were strongly affected by declines in natural resource prices. Kazakhstan also reduced its corporate tax rate from 30% in 2008 to 20% in 2009. An additional factor contributing to the decrease in revenues from CIT in Mongolia was the abolishment of the windfall tax on profits in 2011, which accounted on average for around 20% of total tax revenue in previous years (World Bank, 2011<sub>[33]</sub>).

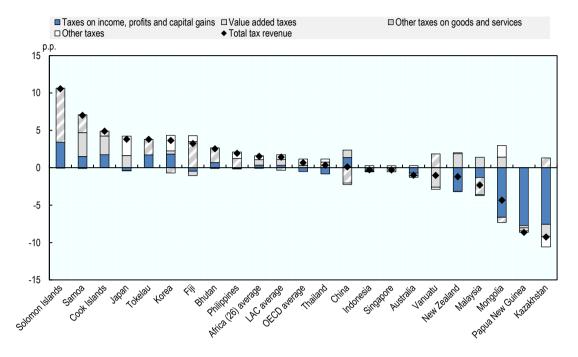
Eleven economies recorded increases in their tax-to-GDP ratios between 2007 and 2018. The highest increases were seen in Samoa and the Solomon Islands. In Samoa, the increase in the tax-to-GDP ratio of 7.0 p.p. was due to VAT increasing by 3.2 p.p., other taxes on goods and services by 2.4 p.p. and income taxes by 1.5 p.p. Samoa has implemented a variety of reforms to broaden the tax base and remove exemptions, improve tax administration efficiency and tax compliance (IMF, 2018<sub>[34]</sub>; Cullen, 2017<sub>[35]</sub>). All these measures contributed to the increase in tax revenue over the years. The increase by 10.6 p.p. of the tax-to-GDP ratio for the Solomon Islands was mainly driven by increases in other taxes on goods and services (7.2 p.p.) and taxes on income (1.7 p.p. from both corporates and individuals). The growth in revenues from taxes on income can be explained by favourable conditions in the Solomon Islands' economy. The consistently strong performance of the logging sector, which accounts for over 50% of the country's GDP (IMF, 2018<sub>[36]</sub>) and over 70% of total exports (IMF, 2020<sub>[37]</sub>) contributed to large increases in revenue from export duties.

#### Levels of revenues from tax categories in 2018 (as a percentage of GDP)

Australia, New Zealand and Tokelau had the highest levels of personal income tax (PIT) revenues as a percentage of GDP in 2018 (Figure 1.7). Revenue from PIT equated to 12.1% of GDP in New Zealand and 11.5% of GDP in Australia (2017 figure). Tokelau, with a ratio of 8.6% of GDP, had a similar level of PIT revenue to the OECD average in 2017 (8.3%). In the other Pacific economies covered in this publication, revenue from PIT was above 3.0% of GDP except in Fiji (1.9%) and Vanuatu (which does not have a PIT). For Nauru, it is not possible to distinguish between revenues from PIT and CIT. However, Nauru has the highest level of revenue from income taxes of all economies included in the publication, at 24.8% of GDP. In the Asian countries included in this publication, with the exceptions of Japan and Korea, revenue from PIT in 2018 ranged from 0.9% of GDP in Bhutan to 2.5% of GDP in Mongolia.

Figure 1.6. Net changes in tax-to-GDP ratios between 2007 and 2018

Percentage point (p.p.) change, by main type of taxes



Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019<sub>[1]</sub>).

2017 data are used for the Africa (26) average, Australia, Japan and the OECD average.

Data for the Africa (26) average, Bhutan and Fiji start in 2008.

Nauru is excluded from this analysis as data are only available from 2014 onwards.

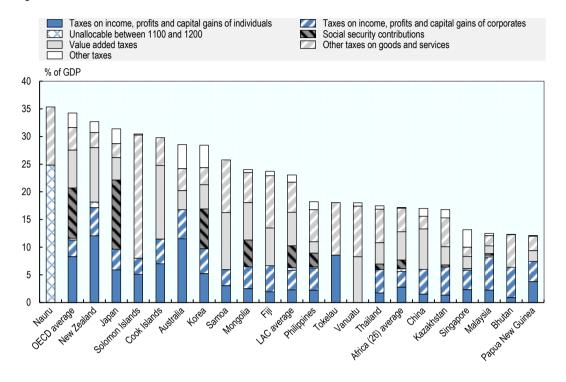
The tax-to-GDP ratio for China does not include revenue from social security contributions as detailed data were not available.

Source: Authors' calculations based on (OECD, 2020[29]), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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Figure 1.7. Tax structures as a percentage of GDP (2018)

#### Percentage of GDP



Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019<sub>[24]</sub>).

2017 data are used for the Africa (26) average, Australia, Japan and the OECD average.

The tax-to-GDP ratio for China does not include revenue from social security contributions (SSCs) as detailed data were not available. The OECD Secretariat estimates SSCs to be approximately 4.0% of GDP in 2018 based on publicly available data from China's Ministry of Human Resources and Social Security.

Source: (OECD, 2020[38]), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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Revenues from corporate income tax (CIT) were higher than revenues from PIT in 10 of the 18 economies considered here (excluding Tokelau and Vanuatu, which do not have a corporate tax, and Nauru, for which a distinction between PIT and CIT revenues is not possible). Revenues from CIT ranged from 2.9% of GDP in the Solomon Islands and Samoa, to 6.0% in Malaysia. CIT revenue exceeded 5% of GDP in five countries: Kazakhstan and New Zealand (both at 5.1% of GDP), Australia (5.3% of GDP), Bhutan (5.5% of GDP) and Malaysia (6.0% of GDP).

Social security contributions (SSCs) play a small role in the tax revenues of Asian and Pacific economies. Eleven of the economies in this publication, including all Pacific economies, do not levy SSCs. In most of the remaining economies, revenues from SSCs were relatively low in 2018, including in Malaysia (0.3% of GDP), Indonesia and Kazakhstan (0.4% of GDP), Thailand (1.0% of GDP) and the Philippines (2.5% of GDP). These levels are significantly below the LAC average (4.0% of GDP) and the OECD average (9.1% of GDP in 2017). Three Asian countries reported higher shares of SSCs. Mongolia recorded a share of SSCs at 4.8% of GDP, and Korea and Japan also have high shares of revenue from SSCs, at 7.2% and 12.5% of GDP (2017 figure), respectively.<sup>4</sup>

Although the level of SSCs remains relatively low in Indonesia (0.4% of GDP), the government has recently undertaken intensive reforms to increase it:

- A new pension system (*Jaminan Pensiun* (JP)) was introduced in 2014 and is a compulsory insurance for formal workers in the private sector (OECD, 2019<sub>[11]</sub>).
- New institutions responsible for health and employment-related social security were created to replace the previous ones. The *Badan Penyelenggara Jaminan Sosial* (BPJS) is responsible for policy development, implementation of social security schemes, and monitoring of social security funds. The BPJS has two independent management bodies: *BPJS Kesehatan* (Health); and *BPJS Ketenagakerjaan* (Labour). They began operations in January 2014 and July 2015, respectively (OECD, 2019[11]).
- The coverage and contribution rates for these programmes (both for employees and employers) have increased, which has led to higher social security contributions (The United States Social Security Administration, 2018<sub>[39]</sub>).

In most of the Asian economies in this publication, revenues from taxes on goods and services as a percentage of GDP are below 10.0%, with the exception of Mongolia, which raised an equivalent of 12.2% of GDP in 2018. In contrast, the majority of the Pacific economies in this publication raised levels of revenues from taxes on goods and services above 10.0% of GDP, ranging from 10.5% of GDP in Nauru to 22.3% in the Solomon Islands in 2018. The exceptions are Papua New Guinea (4.6% of GDP), Australia (7.4% of GDP, 2017 figure) and Tokelau (9.5% of GDP).

#### Tax structures

The tax structure, measured as the composition of tax revenues of different types, is the second key indicator in *Revenue Statistics*. Different taxes have different economic and social effects. Across the 21 economies in this publication, the composition of taxes varies widely, reflecting economies' different policy choices, economic structures and conditions, tax administration capabilities and historical factors.

#### Tax structures in 2018 and evolution since 2007

The tax structure of the economies covered in this publication varied greatly in 2018. In ten economies, the main source of tax revenue was taxes on goods and services, while nine economies obtained the primary share of tax revenues from income taxes (Figure 1.8). Japan is the only country in which the greatest share of revenues was derived from social security contributions.

In 2018, income taxes were the largest source of revenue for Australia (2017 figure), Bhutan, Indonesia, Korea, Malaysia, Nauru, New Zealand, Papua New Guinea and Singapore. Among these economies, the share of income tax revenues varied from 34.1% in Korea to 70.2% in Nauru. CIT revenues were higher than PIT revenues in four Asian countries (Bhutan, Indonesia, Malaysia and Singapore), while all Pacific economies in this group (Australia, New Zealand, Papua New Guinea and Tokelau), as well as Korea, raised higher shares of revenue from PIT.

Taxes on goods and services were the main source of tax revenue in the Cook Islands, Fiji, Kazakhstan, Mongolia, the Philippines, Samoa, the Solomon Islands, Thailand, Tokelau and Vanuatu in 2018, contributing between 43.0% (the Philippines) and 96.9% (Vanuatu) of total tax revenue. Taxes on goods and services also contributed the largest share of revenues for the LAC and African regions, on average, amounting to more than 50% of total tax revenue. In most of the economies in which revenue from taxes on goods and services are the main source of revenues, taxes on goods and services other than VAT, such as excises and import duties, contributed typically a larger share than VAT revenues to total tax revenues. Seven economies recorded higher revenues from other taxes on goods and services, ranging from 31.1% of total tax revenues in Kazakhstan to 73.2% in the Solomon Islands, while three economies

received a larger share of revenue from VAT: Mongolia (28.2%), Samoa (40.1%) and the Cook Islands (44.6%).

As discussed earlier, social security contributions played a small role in revenues for most Asian and Pacific economies, with a few exceptions. Japan derived the largest share of total tax revenues from social security contributions, at 39.9% in 2017. Social security contributions also played a significant role in revenues in Mongolia (20.1%) and Korea (25.4%), with shares that are close to the OECD average (26.0% in 2017).

Taxes on income, profits and capital gains of individuals Taxes on income, profits and capital gains of corporates Unallocable between 1100 and 1200 Social security contributions Value added taxes Other taxes on goods and services % Other taxes 100 90 80 70 60 50 40 30 20 10 Sadia Went Cilles Affica (26) Subrates New Zealand 0 Solonon latands Cook is lands Valakistan. L RC WET ROSE Australia OECD average Mauri Singapore Indonesia Tokelau Mongolia Bhutan 78081 Philippines Varuati

Figure 1.8. Tax structures as a percentage of total taxation (2018)

Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 [ (OECD, 2019<sub>[1]</sub>)

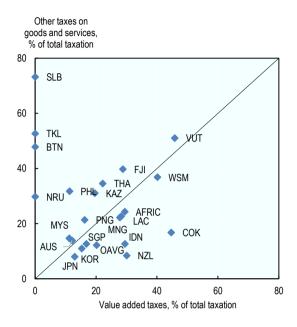
2017 data are used for the Africa (26) average, Australia, Japan and the OECD average.

Data for China are not included in this graph as detailed data on revenue from social security contributions were not available. Source: (OECD, 2020<sub>[29]</sub>), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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Across most economies in this publication, VAT is an important and increasing source of revenues, particularly in the Pacific (Figure 1.9). Excluding Nauru, Bhutan, Tokelau and the Solomon Islands, which do not have value added taxes, VAT revenue ranged from 11.3% of total tax revenue in the Philippines to 45.8% of total tax revenue in Vanuatu in 2018. In addition, VAT revenues as a share of total taxes are typically higher in Pacific than in Asian economies. In the Asian countries in this publication, VAT revenue ranged from 11.3% of total tax revenue in the Philippines to 29.5% of total tax revenue in Indonesia. Besides Indonesia, Mongolia was the only other Asian country in which VAT revenues accounted for more than 25% of total tax revenue in 2018. In the Pacific economies that apply a VAT system, only Australia and Papua New Guinea had shares of VAT of less than 25% (12.2% [2017 figure] and 16.2%, respectively), while the Cook Islands and Vanuatu had the largest shares (44.6% and 45.8% of total tax revenues, respectively).

Figure 1.9. Revenue from value added tax and other taxes on goods and services as a percentage of total tax revenue (2018)



Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019<sub>[24]</sub>).

2017 data are used for the Africa (26) average, Australia, Japan and the OECD average.

Bhutan, Nauru, the Solomon Islands and Tokelau do not levy value added tax.

Data for China are not included in this graph as detailed data on revenue from social security contributions were not available.

Source: (OECD, 2020[29]), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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Revenues from other goods and services contributed between 8.0% of total tax revenue in Japan (2017 figure) and 73.2% in the Solomon Islands in 2018. The high share in the Solomon Islands is derived from general taxes on goods and services, such as the goods tax and the sales tax and export duties on various products, particularly logging (the Solomon Islands do not apply a VAT). Shares of non-VAT taxes in total revenue are also comparatively high in Bhutan, Fiji, Samoa, Tokelau and Vanuatu, where they are larger than 35% of total tax revenues.

In 2018, revenue from other taxes on goods and services played a more prominent role in the Pacific economies than in the Asian countries covered in this publication. Seven of the ten Pacific economies generated more revenue from other taxes on goods and services than from VAT, whereas six of the eleven Asian countries received more revenue from VAT. For the Africa, LAC and OECD averages, revenue from VAT contributed a larger share to total tax revenue than other goods and services.

The share of revenue from VAT increased most in Mongolia (9.3 p.p.) and New Zealand (6.6 p.p.) between 2007 and 2018. Three economies increased their VAT rate between 2007 and 2018: New Zealand, with an increase from 12.5% to 15% in 2010 (OECD, 2012<sub>[40]</sub>); Japan, from 5% to 8% in 2014 (OECD, 2014<sub>[41]</sub>); and the Cook Islands, from 12.5% to 15% in 2014 (Cook Islands News, 2013<sub>[42]</sub>).

Malaysia replaced its sales tax with a VAT at 10% in 2015 (Bloomberg,  $2015_{[43]}$ ), and VAT revenues increased from 15.8% of total tax revenues in 2015 to 24.1% in 2017, but decreased to 11.2% in 2018 following the government's decision to return to the sales tax and abolish the VAT (ASEAN,  $2018_{[30]}$ ). Mongolia has passed VAT reforms to broaden the tax base or to increase the efficiency of the VAT administration (Bloomberg,  $2018_{[44]}$ ); (World Bank,  $2018_{[45]}$ ).

Six economies experienced a decline in the share of VAT revenues over this period: Australia, Fiji, Korea, the Philippines, Singapore and Vanuatu. In Fiji, the share of VAT revenue declined by 7.4 p.p. in 2018 to 28.8% of total tax revenue, following a decrease of the VAT rate from 15% to 9% in 2016. Similarly, the share of VAT revenue in Vanuatu declined by 11.2 p.p. in 2018 to 42.5% of total tax revenue due to higher revenue from excises and other taxes on goods and services. Decreases in Australia, Korea and Singapore were less than 1 p.p., while the share decreased by 1.6 p.p. in the Philippines over the same period.

The composition of income taxes between corporate and personal income taxes also varied in Asian and Pacific economies (Figure 1.10). In 2018, all Asian countries except Japan and Korea had a greater share of CIT revenues relative to PIT. In contrast, all Pacific economies covered in this publication except Fiji had a greater share of PIT than CIT.

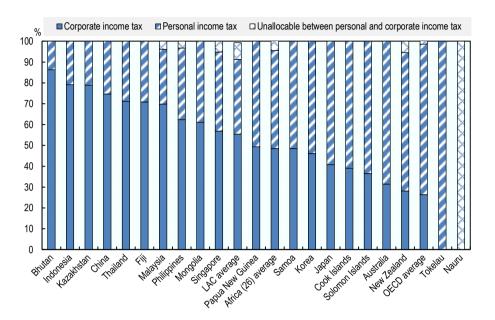
In 2018, revenues from CIT contributed between 28.1% of total income tax revenue in New Zealand and 86.3% of total income tax revenue in Bhutan. In nine economies, the share of CIT revenues in total income tax revenue was larger than 60% and many of these economies receive a significant share of CIT from companies in the oil and mining sector (Mongolia, Malaysia, Kazakhstan, Indonesia and Bhutan). By contrast, revenue from PIT as a percentage of total income tax ranged from 13.7% in Bhutan to 100% in Tokelau (the latter does not have a CIT).

Between 2007 and 2018, revenues from CIT and PIT were relatively variable as a share of total tax revenues in all economies covered in this publication. The share of CIT revenues was lower in 2018 than in 2007 in nine economies, by between 3.1 p.p. of total tax revenues in the Philippines and 25.7 p.p. in Papua New Guinea.

The share of revenues from PIT decreased for ten Asian and Pacific economies between 2007 and 2018, and the scale of the decreases ranged from 0.4 p.p. of total tax revenues in the Philippines to 7.9 p.p. in Fiji. Revenue from PIT increased as a share of total taxation for eight economies (excluding China, Nauru and Vanuatu) in this period, from 0.3 p.p. in Bhutan to 14.0 p.p. in Papua New Guinea.

Figure 1.10. Revenue from corporate income tax and personal income tax (2018)

Percentage of total income tax revenue



Notes: The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands.

The averages for Africa (26 countries), for LAC (25 Latin American and Caribbean countries) and the OECD (36 countries) are unweighted. Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea, New Zealand and the OECD average are taken from *Revenue Statistics* 2019 (OECD, 2019<sub>[24]</sub>).

Vanuatu does not levy personal or corporate income tax, and Tokelau does not levy corporate income tax.

The distinction between revenue from personal and corporate income taxes was not possible in Nauru.

Source: Authors' calculations based on (OECD, 2020[38]), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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#### Box 1.2. VAT revenue ratios in Asian countries

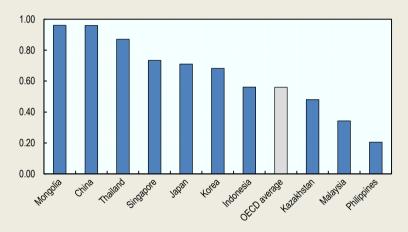
The VAT revenue ratio (VRR) measures the difference between the VAT revenue collected and what would theoretically be raised if VAT was applied at the standard rate to the entire potential tax base in a "pure" VAT regime and all revenue was collected. A VRR of 1 suggests no loss of VAT revenue as a consequence of exemptions, reduced rates, fraud, evasion or tax planning. This box describes the VRR levels in the Asian countries in this publication.

There was a wide disparity of VRRs in Asian countries in 2018 (Figure 1.11). The Philippines had the lowest VRR at 0.2 and Mongolia and China had the highest at 0.96 (2017 figure for Mongolia). Of the countries in this publication, Japan, Korea and Singapore have relatively high VRRs (exceeding 0.6), above the OECD average of 0.56 (2016 figure). This is partially because of the relatively broad-based VAT in each country: Japan does not have any reduced rates while in Singapore, only international services are zero-rated, with the only exemptions applying to the sales and leases of residential properties and to most financial services (Ministry of Finance of Singapore, 2020<sub>[46]</sub>). Korea has a reduced rate on a number of goods and services. In comparison, many OECD countries have one or more reduced rates (OECD, 2016<sub>[47]</sub>), which partly explains the lower average VRR in the OECD region.

The VRR needs to be interpreted with caution and can be affected by several factors that inflate it. One reason can be where exemptions on products and services relating to intermediate consumption can lead to a cascading effect that increases VAT revenue (IMF, 2017<sub>[48]</sub>). For example, in Thailand, a large amount of exemptions on a variety of products may cause "cascading", which artificially increases the VRR. Another reason the VRR may be inflated is if refund processes do not work correctly, which may discourage taxpayers from claiming their VAT refunds, resulting in artificially higher VAT revenue and VRR.

On the other hand, the VRR can be deflated by the absence of rules and mechanisms for the collection of VAT on inbound business-to-consumer (B2C) supplies of services resulting from the ever-growing digital trade. To date, over 60 countries in the world have adopted the rules for the application of VAT to such supplies and 40 of them have implemented simplified registration and collection regimes for the actual collection of VAT according to the OECD standards. Japan and Korea collect VAT on these supplies since 2015; and Singapore, Indonesia and Malaysia should implement similar measures in 2020.





Notes: Data for Japan and the OECD average are taken from (OECD, 2018<sub>[49]</sub>) and therefore show data for 2016.

Philippines: The VRR measure is currently underestimated as the VAT revenue collected at customs is not accounted for in total VAT revenue in this publication (this revenue could not be distinguished from revenue from other import duties and is currently classified under heading 5120 (taxes on specific goods and services).

Mongolia: 2017 data are used because the VAT data for 2018 is artificially high due to a large reimbursement requested in December 2018 which was processed in 2019.

Sources: Countries, Trading Economics and KPMG websites and (OECD, 2018<sub>[49]</sub>) for VAT rates; *World Economic Outlook April 2020* (IMF, 2020<sub>[17]</sub>) and *OECD Annual National Accounts* (OECD, 2020<sub>[50]</sub>) for final expenditure consumption figures; and country tables in Chapter 4 for VAT revenues.

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#### **Environmental taxes in Asia and the Pacific**

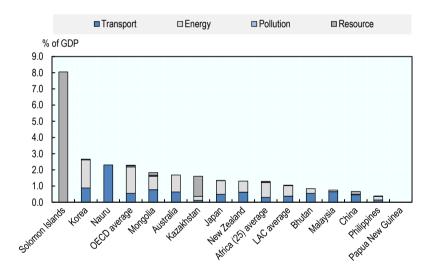
Environmentally related taxes,<sup>5</sup> and price-based policy instruments more generally, play an increasingly significant role in many countries to support a transition to a sustainable and low-carbon economic growth. By incorporating a price signal into consumer and producer decisions, these taxes give effect to the

polluter-pays principle and encourage businesses and households to consider the environmental costs of their behaviour. Although environmentally related tax revenues (OECD, 2017<sub>[61]</sub>)<sup>6</sup> are not separately identified in the standard OECD tax classification, they can be identified through the detailed list of specific taxes included for most countries within this overarching classification. It is on this basis that they are included in the *OECD Policy Instruments for the Environment* (PINE) database (OECD, 2017<sub>[61]</sub>).<sup>7</sup>

A detailed examination of country-specific taxes for the Asian and Pacific economies for which information is available demonstrates that revenue from environmentally related taxes in 2018 ranged from less than 0.05% of GDP in Papua New Guinea to 8.0% of GDP in the Solomon Islands.<sup>8</sup> The case of the Solomon Islands is notable as their environmentally related tax revenue is particularly high compared to the levels in other Asian and Pacific economies or even to the OECD average, due in large part to higher export duties, particularly on timber. The second highest revenues from environmental related taxes in the region are levied by Korea and Nauru, amounting to over 2.0% of GDP in 2018, a similar level to the OECD average (2.3% of GDP, estimated 2018 figure (OECD, 2019[24])).

Figure 1.12. Environmentally related tax revenue in Asian and Pacific economies, by main tax base (2018)

Percentage of GDP



Notes: It has not been possible to identify environmentally related tax revenue for Thailand and Samoa due to data availability issues. 2016 data are used for Australia and 2014 data for Korea as these are the latest years available in the PINE database.

Sources: PINE database for Australia, Japan, Korea and New Zealand; (OECD, 2020[51]) and authors' calculations based on (OECD, 2020[38]), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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The Asian and Pacific economies in this report rely on different environmentally related tax revenue (ERTR) bases:

- In the Solomon Islands and Kazakhstan, the majority of environmentally related tax revenues are from resource taxes (timber for the Solomon Islands through export taxes, and minerals for Kazakhstan through an excise tax). They represent 78% of total environmentally related tax revenue in Kazakhstan and the totality for the Solomon Islands.
- In other Asian and Pacific economies, environmentally related tax revenues are principally levied either from taxes on energy (five countries, most commonly from diesel and petrol) and from transport taxes (six countries, registration or road use of motor vehicles or departure taxes). In almost all countries, a combination of these two types of taxes is used; Nauru is the exception as it resorts entirely to transport taxes, sourcing 99% of ERTRs from departure taxes and passenger taxes.
- Only 6 countries (China, Japan, Korea, Kazakhstan, Mongolia, and the Philippines) out of the 13 for which data are available collect environmentally related tax revenues from three different bases or more, whereas other countries rely mainly on one base (Nauru, Papua New Guinea and the Solomon Islands) or two bases (Australia, New Zealand, Bhutan and Malaysia).
- The composition of environmentally related tax revenues varies more in Asian and Pacific economies than in African (25), LAC and OECD countries, where transport taxes are more dominant (70% in Africa and the OECD, and 60% in LAC).

In comparison to OECD countries, the use of taxation to address environmental issues is low in the region and there is a significant scope to resort more to this type of taxation. The underutilisation of environmental taxes in the Asia-Pacific region needs also to be understood in the context of the extensive use of fossil fuels subsidies. Reforming energy subsidies is considered by ADB (2016<sub>[52]</sub>) as "one of the most important policy challenges for developing Asian economies". UN ESCAP (2016<sub>[53]</sub>) recommends that governments should gradually phase out energy subsidies while implementing measures to compensate vulnerable groups and to ensure international competitiveness in a sustainable way. Reforming energy subsidies while at the same time implementing environmental taxation has the potential to mobilise significant government revenues and help to meet the Sustainable Development Goals (SDGs). Singapore has recently introduced significant green tax reforms:

• In 2019, Singapore became the only country in Southeast Asia to impose a carbon tax. Its payment would be first levied in 2020, based on emissions in 2019. The tax is applied on the total direct emissions of facilities that emit 25 000 tCO<sub>2</sub>e or more annually, and covers six greenhouse gases (NCCS, 2020<sub>[54]</sub>). This tax complements the carbon emissions-based vehicle scheme (CEVS) introduced in January 2013, which levies a tax on all new cars, taxis and newly-imported used cars, based on their CO<sub>2</sub>/km performance.

#### Taxes by level of government

This section discusses the relative share of tax revenues attributed to different levels of government in 2018: central government, regional or provincial government (including state government, where relevant), and local government as well as social security funds.

In many economies included in this publication, the share of sub-national taxes was comparatively small as a share of total tax revenues in 2018 (Table 1.1). Shares of sub-national government tax revenue in the Asian countries ranged from 0.2% of total revenues in Bhutan to 23.9% (2017 figure) in Japan and 22.1% in Kazakhstan. In Indonesia, revenues attributed to sub-national governments rose to over 10% in 2018, following the shift of property taxation to the local level in 2014. Revenue collected by sub-national governments accounted for 16.9% of total taxes in 2018 in Mongolia. In New Zealand, sub-national

government revenues were 6.6% and in Australia, subnational revenues (including both state and local tax revenues) amounted to 20.5% of total tax revenues (2017 figure).

The types of taxes levied by local governments vary between countries. Local governments in the Philippines have a narrow range of taxes under their jurisdiction, relying on property taxes and taxes on income and profits. Sub-national governments in Japan and Korea raised revenue from taxes on income and profits, property taxes, taxes on goods and services, payroll (Korea only) and other taxes. The share of sub-national government revenue also depends on the range of services which local governments are expected to provide: for example, local revenues are higher in Japan since local governments finance a wide range of goods and services including public welfare and are responsible for financing some education and debt servicing (Beshho, 2016<sub>[55]</sub>).

Between 2000 and 2018, the share of revenues collected by sub-national governments was stable, with the exception of Indonesia and Kazakhstan. In Indonesia, the share of revenues attributed to sub-national governments increased by 7.0 p.p., whereas in Kazakhstan it decreased by 27.6 p.p.

As social security contributions play a smaller role in total revenues in Asia and the Pacific than in other regions, the share of revenues attributed to social security funds was also low. Australia, Bhutan, New Zealand and Singapore do not have social security funds and the proportion of total tax revenues collected by social security funds therefore was zero in 2018, and was under 6% of total revenues in Indonesia, Kazakhstan, Malaysia and Thailand. By contrast, countries that source a greater share of their revenues from social security contributions also had higher shares of revenues attributed to social security funds: at 40.4% of tax revenues in Japan in 2017 and 25.7% in Korea and 21.0% in Mongolia in 2018. The share of tax revenues attributed to social security funds has increased in Japan (by 5.2 p.p.) and Korea (by 9.0 p.p.) since 2000, and in Mongolia since 2006 (by 10.8 p.p.).

Table 1.1. Attribution of tax revenues to sub-sectors of general government

Percentage of total tax revenue	(2000-18)
---------------------------------	-----------

	Fede	Sub-national government				Social security funds						
	2000	2010	2015	2018	2000	2010	2015	2018	2000	2010	2015	2018
Australia	81.8	80.2	79.3	79.5	18.2	19.8	20.7	20.5	0.0	0.0	0.0	0.0
Bhutan		99.9	99.6	99.8		0.1	0.4	0.2		0.0	0.0	0.0
Indonesia	96.1	92.8	88.8	85.7	3.9	7.2	10.6	10.8			0.6	3.5
Japan	38.7	33.0	36.7	35.7	26.1	25.9	23.9	23.9	35.2	41.1	39.4	40.4
Kazakhstan	50.3	81.3	72.2	74.6	49.7	16.2	24.0	22.1		2.5	3.8	3.2
Korea	68.2	60.0	55.4	57.0	15.1	16.6	18.0	17.3	16.7	23.3	26.6	25.7
Mongolia		75.5	61.5	62.1		11.4	16.5	16.9		13.1	22.0	21.0
Malaysia	98.0	98.2	98.3	98.1					2.0	1.8	1.7	1.9
New Zealand	94.3	92.8	93.2	93.4	5.7	7.2	6.8	6.6	0.0	0.0	0.0	0.0
Philippines	81.5	82.2	80.5	81.3	5.3	5.2	5.4	5.3	13.1	12.7	14.1	13.4
Singapore	100.0	100.0	100.0	100.0					0.0	0.0	0.0	0.0
Thailand	88.9	86.3	86.4	85.6	7.5	6.6	8.0	8.6	3.7	7.1	5.6	5.7

Notes: Australia, Japan, Korea and New Zealand are part of the OECD (36) group. Data for Australia, Japan, Korea and New Zealand are taken from (OECD, 2019<sub>[11]</sub>).

The figures do not include sub-national tax revenue for the Cook Islands, Fiji, Malaysia, Papua New Guinea, Samoa and the Solomon Islands. 2017 data are used for Australia and Japan.

Australia: Sub-national figures include data of state and local government.

Data for China are not included in this table as detailed data on revenue from social security contributions were not available.

Source: (OECD, 2020<sub>[29]</sub>), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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#### Non-tax revenues in selected economies

This publication also includes information on non-tax revenues for selected economies for which data are available. Non-tax revenues are defined as all revenues received by general government that do not meet the OECD definition of taxes, as set out in the Interpretative Guide (Annex A). They are further divided into five categories according to the definitions set out in Annex B: grants; property income; sales of goods and services; fines, penalties and forfeits; and miscellaneous and unidentified revenues.

#### Non-tax revenues as a percentage of GDP

Non-tax revenues were equivalent to a significant share of GDP in 2018 for five economies for which data are available. Non-tax revenues were around 12.9% of GDP in 2018 in Bhutan and the Cook Islands, and around 18.2% of GDP in Vanuatu, whereas they amounted to 92.7% of GDP for Nauru and to 236.4% of GDP for Tokelau. The very high level of non-tax revenues in Tokelau, measured as a share of GDP, is due to the fact that non-tax revenues are derived primarily from payments by foreign vessels for access to Tokelau's fishing waters. In the 2008 System of National Accounts, these revenues are recorded as part of GNI, but they do not add to GDP. By contrast, non-tax revenues are below 6.5% of GDP in the remaining economies (see Table 1.2).

Further, non-tax revenues have been increasing since 2007 (or earliest available year) for the majority of the economies, whereas they have been declining as a share of GDP for Bhutan (since 2008), Mongolia, Papua New Guinea and Samoa. The upward trend for Tokelau has been driven by the increase in revenues from property income, which is entirely sourced from fishery income. Tokelau receives support from New Zealand to strengthen the management of its Exclusive Economic Zone to maximise Tokelau's revenue collection from its international fisheries (New Zealand Foreign Affairs & Trade, 2018<sub>[56]</sub>). Fisheries income also increased after Tokelau became a partner to the Nauru Agreement, which administers the fishing vessel-day scheme (VSD). The VSD is the system to sustainably manage the world's largest tuna fishery in the Western and Central Pacific Ocean, and has increased revenue to participating islands by over 500% in the past six years (Parties to the Nauru Agreement, 2016<sub>[57]</sub>).

The increase in non-tax revenue for the Cook Islands has been predominantly driven by an increase in grant revenues from New Zealand, Australia and the European Union. This support contributes to upgrading infrastructure, growing sustainable tourism, and supporting initiatives that strengthen the public sector and improve education, health and social services. Increases in non-tax revenues in Vanuatu can be explained by increases in grant revenue in response to Cyclone Pam in 2015 (causing losses to the economy of over 60% of GDP (IMF, 2016<sub>[58]</sub>)) and volcano eruptions in 2017 (causing the evacuation of 11 000 people (MEAE France, 2017<sub>[59]</sub>)). Besides higher grant revenue relative to 2007, the success of the government citizenship programme in Vanuatu also contributed the most to increases in non-tax revenue in 2018 (Department of Finance and Treasury of Vanuatu, 2018<sub>[60]</sub>).

#### Structure of non-tax revenues

Non-tax revenues are divided into different categories: grants; property income; sales of goods and services; fines, penalties and forfeits; and miscellaneous and unidentified revenues.

In 2018, the shares of each of these categories in total non-tax revenues varied across the 12 economies for which data are available (Figure 1.13). Notable trends include:

- Grants were an important source of revenues for half of the economies in 2018, exceeding 30% of total non-tax revenues in six economies: Vanuatu (33.6%), Samoa (33.8%), Tokelau (36.3%), Bhutan (46.2%), the Cook Islands (46.7%) and Papua New Guinea (62.6%). In 2018, they were the main source of non-tax revenues for the Cook Islands, Papua New Guinea and Bhutan.
- Property income accounted for over 40% of total non-tax revenue in three-quarters of the
  economies for which non-tax revenue data are available. The only exceptions are Vanuatu, which
  does not have revenues from property income, Samoa (16.0%) and Papua New Guinea (36.3%).

Property income in Tokelau and Nauru was derived predominantly from fisheries income (i.e. fishing rents, fishing days, support vessels, etc.), which represented more than 80% of total property income in both economies. Rents and royalties accounted for 78.1% of total non-tax revenue in Kazakhstan, mainly from oil revenues in 2018.

Table 1.2. Non-tax revenue of main headings as a percentage of GDP in selected Pacific economies (2007-18)

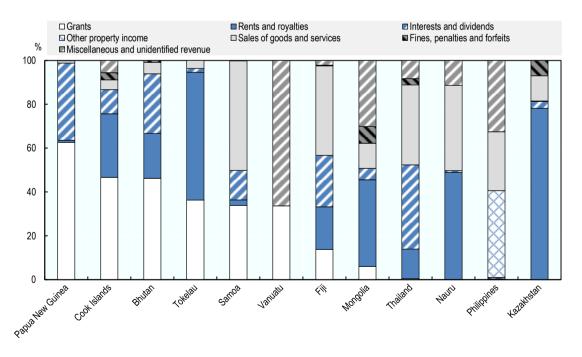
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Bhutan		25.53	26.46	21.85	21.54	16.56	20.61	14.83	17.74	14.99	16.44	12.87
Cook Islands	5.59	5.19	9.21	13.54	8.20	8.40	14.29	16.19	13.89	16.39	14.32	12.91
Fiji				2.64	3.31	2.76	2.67	2.94	2.88	3.21	3.50	3.59
Kazakhstan	1.71	1.64	1.25	1.22	1.58	2.18	1.28	0.68	0.49	1.35	1.24	1.73
Mongolia	9.53	6.41	7.86	6.55	7.42	6.93	7.17	7.76	6.30	5.07	4.33	4.59
Nauru								28.63	65.16	63.74	70.79	92.67
Philippines								1.89	2.17	1.90	1.81	1.95
Papua New Guinea	4.00	4.08	3.51	4.71	3.27	3.09	2.41	3.10	3.24	3.17	3.18	3.56
Thailand	2.60	2.90	2.87	3.27	2.72	2.79	2.92	3.11	3.53	3.63	3.55	3.70
Tokelau	149.26	157.58	165.20	154.60	196.37	192.57	246.59	173.40	252.49	236.47	177.95	236.43
Vanuatu	1.44	6.49	7.00	8.27	5.89	5.23	4.22	5.83	14.79	9.56	14.20	18.18
Samoa	7.09	9.66	3.45	9.01	6.02	4.84	6.97	4.81	4.76	4.74	5.61	6.07

Note: Tokelau receives significant revenues from foreign vessels for access to Tokelau fishing waters. In the 2008 SNA, these revenues are recorded as part of GNI, but they do not add to GDP.

Source: (OECD, 2020<sub>[29]</sub>), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

StatLink https://stat.link/9cv68e

Figure 1.13. Structure of non-tax revenue (2018)



Source: (OECD, 2020<sub>[29]</sub>), "Revenue Statistics - Asian and Pacific Economies: Comparative tables", OECD Tax Statistics (database).

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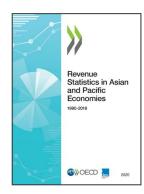
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#### **Notes**

- <sup>1</sup> This information was provided by the Ministry of Finance of Mongolia during exchanges with the OECD Secretariat in preparation of this publication.
- <sup>2</sup> This information was provided by the Tokelau Statistical Office during exchanges with the OECD Secretariat in preparation of this publication.
- <sup>3</sup> Data for Bhutan and Fiji are only available from 2008, so the data used for both economies in this section are from 2008-18. Data for the Africa (26) average cover 2008 to 2017. In addition, 2018 data for Australia, Japan and the OECD average are not available, so 2017 data are used instead. Nauru is excluded from this analysis as data are only available from 2014 onwards.
- <sup>4</sup> Detailed data on SSCs for China were not available, but the OECD Secretariat estimates SSCs to be approximately 4.0% of GDP in 2018 based on publicly available data from China's Ministry of Human Resources and Social Security.
- <sup>5</sup> An environmentally related tax is a tax whose base is a physical unit (or a proxy of a physical unit) of something that has a proven, specific harmful impact on the environment regardless of whether the tax is intended to change behaviours or is levied for another purpose.
- <sup>6</sup> The figures in this report do not include revenues (that may be significant) from other policies addressing environmental issues such as fees and charges or revenues from emissions trading schemes. However the PINE database provides additional data on fees and charges, subsidies, voluntary approaches, tradable permits, deposit-refund systems for more than 80 countries.
- <sup>7</sup> Data on environmentally related tax revenue are presented for four tax-base categories: energy (including all CO<sub>2</sub> related taxes); transport (mostly motor vehicle taxes); pollution (e.g. discharges of waste or pollutants, taxes on waste or packaging); and resources (e.g. water extraction, hunting and fishing, mining).
- <sup>8</sup> These figures need to be treated with caution as some environmentally related taxes may not be captured if the data are not sufficiently disaggregated.



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