



Recovering from COVID-19: How to enhance domestic revenue mobilisation in small island developing states

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At a time when small island developing states (SIDS) are being acutely affected by the economic impacts of the COVID-19 pandemic, this paper takes a broader perspective to explore how the revenue effects of this crisis in SIDS are connected to their unique financing challenges. It also suggests how SIDS governments and development co-operation providers can better partner together to strengthen mobilisation of domestic revenues – in particular tax revenues – in the recovery post-COVID-19.

This paper was conceptualised and written by Talita Yamashiro Fordelone and Piera Tortora, building on research and data analysis on domestic resource mobilisation by Jingjing Xia. Guidance was provided by Michelle Harding and Jens Sedemund, with oversight by Haje Schütte and strategic direction by Kerri-Ann Jones. The authors are grateful for the valuable comments and input provided by Alberto Agnelli, Leonie Cedano, Emmanuelle Modica, Dimitra Koulouri and Joseph Stead. The authors would also like to thank Erin Renner Cordell and Masato Hayashikawa, for reviewing the paper, and Natalie Corry for her editorial and communication support.



Key messages

- Small island developing states (SIDS) have been severely hit by the economic consequences of the COVID-19 pandemic which is leading to unprecedented revenue losses. These large fiscal and economic impacts of the COVID-19 crisis derive from and exacerbate many of SIDS's preexisting financing challenges and vulnerabilities. Therefore, they need to be understood and addressed in light of the broader context of financing for development of these economies.
- The small size of SIDS' economies makes many of them largely dependent on international trade, external finance and few key sectors, often tourism. Compared to other developing countries, SIDS face on average greater challenges in mobilising both public and private finance, from both domestic and external sources. Because of these challenges, unlike other developing countries, SIDS' external finance is dominated by remittances and official development assistance (ODA), while private finance flows are small and volatile.
- Domestic revenues, and taxation in particular, are a key source of financing for sustainable development and resilience in SIDS. Compared to external finance, tax revenues are in general a larger and more stable source of revenues. Over the past decades, many ODA-eligible SIDS have implemented a range of tax policy and tax administration reforms which, combined with increasing GDP levels and favourable economic context, have contributed to raising tax revenue levels in many of them, in particular smaller SIDS. The average tax-to-GDP ratio in ODA-eligible SIDS thus reached 25.1% in 2018, which is higher than the averages for Africa and Latin America and the Caribbean.
- While tax revenue levels across ODA-eligible SIDS vary, their composition is more similar, with taxes on goods and services (including value added taxes) being the most important source of tax revenues in most of them and driving the largest increases in tax-to-GDP ratios between 2008 and 2018.
- Despite recent increases in tax-to-GDP ratios, SIDS' revenues remain highly susceptible to external shocks, as witnessed in the current COVID-19 crisis. This susceptibility makes recent gains in domestic revenue mobilisation fragile. On average, tax-to-GDP ratios fluctuated more strongly in ODA-eligible SIDS than in other economies between 2008 and 2018, notably in SIDS in the Pacific, SIDS with lower income levels and SIDS with a high share of commodities in their exports. The COVID-19 crisis negatively affected tax revenues' levels and volatility in SIDS via shocks to GDP growth, international tourism and commodity prices. This means that tax revenues are being hit hard and becoming even more unpredictable at the time when SIDS' governments need them the most to respond to the crisis.
- To reduce the vulnerability to external shocks of domestic revenues and enhance their contribution to a resilient and sustainable development, SIDS' governments and providers of development co-operation could consider partnering to:
 1. Introduce further tax policy and tax administration reforms, learning from and building on previous experience of many SIDS, to enhance the volume and stability of tax revenues.
 2. Enhance the management of existing key ocean economy sectors, such as fisheries and tourism, and harness new opportunities from an expanding global ocean economy that are environmentally and socially sustainable.
 3. Support international and domestic efforts to curb illicit, unreported and unregulated fishing, which represents a significant source of foregone revenues.



Introduction

Small island developing states¹ (SIDS) are among the smallest and most remote countries in the world. Their small land masses, small populations and remoteness create a host of common structural and geophysical constraints that challenge their ability to achieve sustainable development. These include small and undiversified economies that are highly vulnerable to developments in the global economy and external shocks.

Because of these characteristics, SIDS are also suffering some of the greatest economic and fiscal consequences of the coronavirus (COVID-19) crisis (OECD, 2021^[1]). It is estimated that in 2020 their GDP contracted on average by 6.9%, compared to 4.8% in all other developing countries (OECD, 2021^[1]). The COVID-19 crisis is in fact affecting some of the key ocean economy sectors that SIDS strongly depend upon for income, jobs, foreign exchange and domestic revenues, such as tourism and fisheries. For instance, the international tourism sector, which in many SIDS accounts for more than 80% of total exports and more than 20% of GDP, suffered from a drop of 73% of international travellers' arrivals in 2020 due to the pandemic (OECD, 2020^[2]). The volatility in commodity prices is also impacting revenues in resource-rich SIDS. This is leading to an unprecedented fall in public revenue, which compounded with the rise in public expenditures to tackle the health and economic effects of the pandemic (OECD, 2021^[1]) is exacerbating SIDS pre-existing debt burdens and risking depressing public investment and recovery responses.

These fiscal and economic impacts of the COVID-19 crisis result from and amplify many of the preexisting financing challenges and vulnerabilities of SIDS, and therefore need to be understood and addressed in light of the broader context of financing for development in these economies. This paper puts the fiscal impacts of the COVID-19 crisis in the broader context of SIDS' unique financing challenges, with a focus on domestic revenues, which is a critical source of financing for development. It suggests ways to strengthen domestic revenue mobilisation in SIDS – in particular tax revenues – in the recovery post-COVID-19.

This paper is organised as follows:

- The first section (“SIDS’ structural characteristics and overall financing landscape”) analyses the sources and volumes of financing for development available to SIDS and discusses the factors limiting SIDS’ ability to mobilise greater public and private resources².
- The second section (“tax revenue mobilisation in SIDS”) explores the role of domestic revenue mobilisation – and taxes in particular – in financing sustainable development in SIDS by examining the size and composition of tax revenues, including a comparative analysis across SIDS and a focus on the volatility of SIDS’ tax revenues.
- The third section (“enhancing the level and stability of domestic revenues in SIDS”) provides suggestions that SIDS governments and development partners could take into consideration to grow the level of domestic revenues in SIDS and reduce the high susceptibility of their domestic revenues to external shocks.
- The conclusion summarises the paper’s main findings.

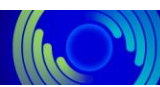


Box 1. Concepts, definitions and data sources

1. Concepts and definitions

The following key concepts are used in this paper:

- External flows/finance: includes the wide range of international flows (public and private) going into a country, including remittances, private flows at market terms (e.g. foreign direct investments, and total bank and non-bank purchases of bonds and other securities, including equities), private grants, non-concessional flows from bilateral and multilateral providers and concessional finance from bilateral and multilateral providers.
 - Official flows/finance: include concessional and non-concessional flows provided by providers of development co-operation (see below for “concessional flows”, “non-concessional flows” and “providers of development co-operation”).
 - Concessional flows/finance: official international flows meeting the ODA definition, as available in the OECD/DAC Creditor Reporting System database (OECD, 2020^[3]).
 - Non-concessional flows/finance: official international flows not meeting the ODA definition.
 - Official development assistance (ODA): defined by the OECD Development Assistance Committee (DAC) as resource flows to developing countries (least-developed countries, low-income countries and middle-income countries) and to multilateral agencies which are: (a) undertaken by the official sector; (b) with promotion of economic development and welfare as the main objective; (c) at concessional financial terms (OECD, n.d.^[4]).
 - Private flows at market terms: include private sector flows from DAC countries provided at market terms (e.g. foreign direct investment, private export credits, securities of multilateral agencies, bilateral portfolio investment and other) and private grants (i.e. grants by non-governmental organisations and other private bodies, net of subsidies received from the official sector) (OECD, n.d.^[4]).
 - Private grants: “Transfers made in cash, goods or services for which no repayment is required, from a private entity” (OECD, n.d.^[4]).
 - Remittances: “transfer of money, often by a foreign worker to an individual in their home country” (OECD, n.d.^[4]).
- Financing for development: encompasses all resources available to developing countries to finance all aspects of their development (social, economic, environmental). This all encompassing term includes public revenues and private flows, as well as international and domestic revenues.
- ODA eligibility: all countries and territories eligible to receive ODA, listed in the DAC List of ODA recipients. The list includes all Least Developed Countries (LDCs) as defined by the United Nations (UN) as well as all low and middle-income countries, defined on the basis of gross national income (GNI) per capita as published by the World Bank, with the exception of G8 members, EU members, and countries with a firm date for entry into the EU (OECD, n.d.^[5]).
- Providers of development co-operation: governments and international organisations that provide ODA and any other type of concessional flow that meets the ODA definition not currently captured by ODA statistics.
- Taxes: defined by the OECD Interpretative Guide as “compulsory unrequited payments to the general government or to a supranational authority. Taxes are unrequited in the sense that benefits provided by government to taxpayers are not normally in proportion to their payments”



(OECD, 2021^[6]). The OECD classifies taxes into the following categories: taxes on income, profits and capital gains (of individuals and of corporations), social security contributions (all compulsory payments to general government that confer an entitlement to receive a contingent social benefit in the future), taxes on payroll and workforce, taxes on property, taxes on goods and services, and other taxes.

2. Data sources

External finance data are extracted from OECD/DAC databases available in OECD.Stat and are complemented by additional sources (indicated where relevant). Data cover:

- Flows in USD: remittances, private flows at market terms, private grants, non-concessional flows from bilateral and multilateral providers, and concessional finance from bilateral and multilateral providers (see definition and types of external finance flows under Concepts and Definitions).
- Thirty-four SIDS eligible to receive ODA in 2018 : Antigua and Barbuda, Belize, Cabo Verde, Comoros, the Cook Islands, Cuba, Dominica, the Dominican Republic, Fiji, Grenada, Guinea-Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, the Marshall Islands, Federated States of Micronesia, Mauritius, Montserrat, Nauru, Niue, Palau, Papua New Guinea, Samoa, São Tomé and Príncipe, Saint Lucia, Saint Vincent and the Grenadines, the Solomon Islands, Suriname, Timor-Leste, Tonga, Tuvalu and Vanuatu (OECD, 2018^[7]).
- Period until 2018, the latest year for which data are available in the Creditor Reporting System (OECD, 2020^[3]).

Tax revenue data are extracted from the *Global Revenue Statistics Database* (OECD, 2020^[8]) and from regional datasets *Revenue Statistics in Africa* (OECD/AUC/ATAF, 2020^[9]), *Revenue Statistics in Asian and Pacific Economies* (OECD, 2020^[10]) and *Revenue Statistics in Latin America and the Caribbean* (OECD et al., 2020^[11]). They cover:

- Three key indicators: tax categories and total taxation as a share of GDP (tax-to-GDP ratio); tax categories as a share of total taxation; tax revenues in USD current prices.
- Fifteen SIDS eligible to receive ODA in 2018: Belize, Cabo Verde, the Cook Islands, Cuba, the Dominican Republic, Fiji, Guyana, Jamaica, Mauritius, Nauru, Papua New Guinea, Saint Lucia, Samoa, the Solomon Islands and Vanuatu (OECD, 2018^[7]).

Eleven years: 2008 to 2018, years for which tax revenue data is available for most of the 15 SIDS covered in *Revenue Statistics*. The exception is Nauru, for which data covers 2014 to 2018.

Small island developing states' structural characteristics and financing landscape

SIDS' unique characteristics and development challenges

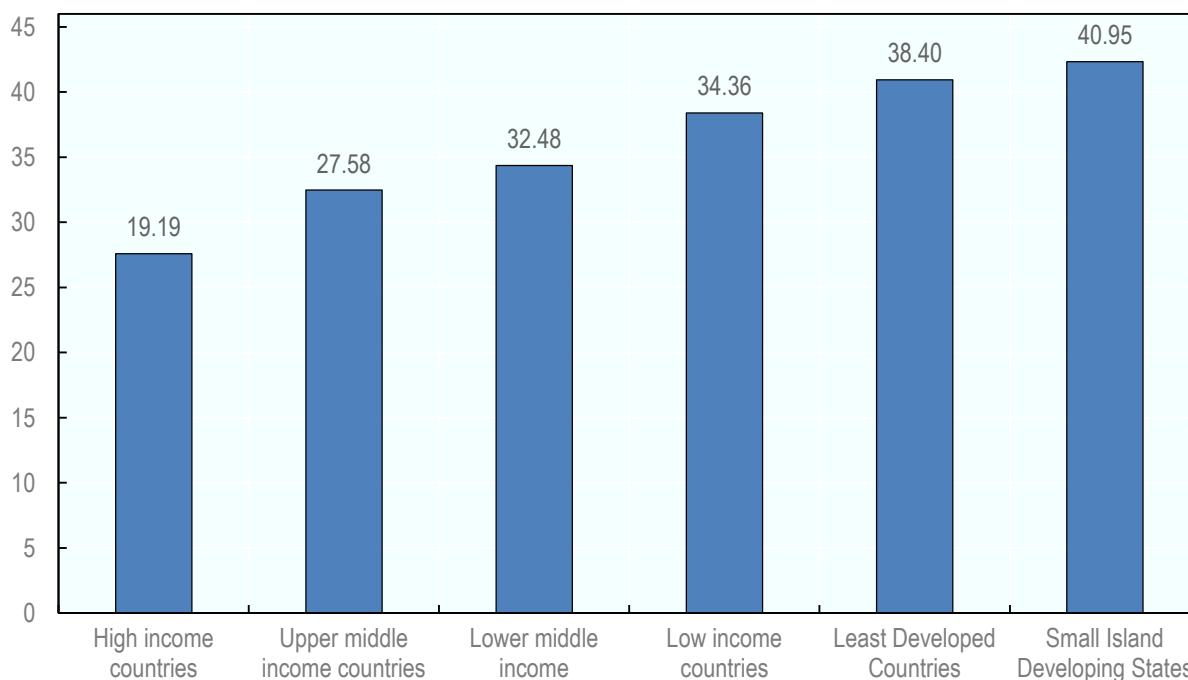
SIDS vary in terms of population size and densities, geographical spread and relative development progress. They include some of the world's smallest, most remote and geographically-dispersed countries and territories, particularly in the Pacific, such as Kiribati, consisting of 33 coral atolls spread over 3.5 million square kilometres of ocean – an area larger than India – or the Solomon Islands, with a population of half a million people dispersed across 90 inhabited islands. By contrast, SIDS in the Latin America and the Caribbean (LAC) are closer to international markets and tend to have larger and more concentrated populations, with Haiti's population exceeding 10 million. While some SIDS are experiencing rapid population growth, others are facing large emigration. They also present different



economic structures and income levels. Some are largely service-based, such as Cabo Verde and the Maldives; others are natural resource based, such as Papua New Guinea and Timor-Leste; and still others, such as Comoros, Kiribati, Micronesia and Tuvalu, display a high reliance on agriculture and fishing. Among the SIDS eligible to receive ODA, most are upper middle-income countries,³ while most non-ODA eligible SIDS are high-income countries (the others are territories or constituent countries of high-income countries)⁴ (OECD, n.d.^[5]).

Despite these specificities, SIDS share strong commonalities that considerably hinder their development prospects (see Box 2), making SIDS the most vulnerable group of developing countries, as measured by the Economic Vulnerability Index (EVI), which takes into account both economic and environmental vulnerabilities, factoring in the impacts of economic and natural shocks⁵ as well as the determinants of exposure to shocks (including small population size and remoteness from world markets)⁶. According to this metric, SIDS are significantly more vulnerable than larger countries with similar income levels (Figure 1). In particular, upper middle-income SIDS are estimated to be 73% more vulnerable than larger countries in this same income group (OECD, 2018^[12]).

Figure 1. Vulnerability across income groups and SIDS measured by the Economic Vulnerability Index (EVI), 2016



Note: The categories in this chart are not mutually exclusive, as SIDS cut across income levels. In particular, of the 34 ODA-eligible SIDS considered, 9 are least developed countries, 5 lower middle-income countries and 20 upper middle-income countries.

Source: Calculations based on FERDI (n.d.^[13]), *FERDI Build Your Own Index*, <http://byind.ferdi.fr/en/indicator/evi/results/ac935b884e0fa703d33d414eb5501ffcfefafc5c>.

Key sources of vulnerability for SIDS include their small, undiversified economies, which make them highly vulnerable to fluctuations in global markets and external shocks, such as the COVID-19 crisis, their small populations, which prohibit economies of scale in productive activities and limit private sector development; as well as their remoteness, which reduces the scope for integrating global value chains, implying high production and trading costs, and limiting competitiveness. Combined with often limited resource bases, these factors mostly result in a concentration of economic activities in a faint number of sectors, most often tourism, services, agriculture and fishing, and natural resource extraction. This explains why, among developing countries, SIDS



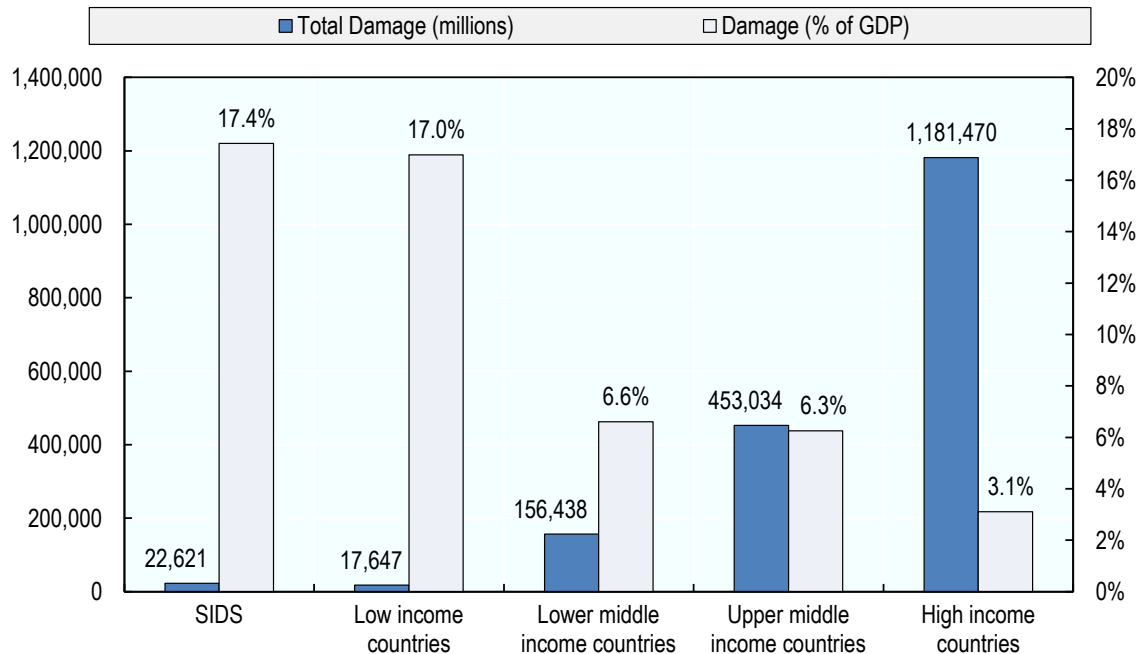
were hit the hardest by the 2008-09 global financial crisis (OECD, 2018^[12]) and why they are hit the hardest also during the COVID-19 crisis. SIDS' over-reliance on one or two key economic sectors determines that when such sector is affected, this can translate into an economy-wide knock-out.

During both the 2008-09 crisis and the COVID-19 crisis, the contraction in the tourism sector, which is a critical sector in many SIDS, has been a key transmission channel of the crises to the whole economy.

The geography of SIDS puts them at the forefront of extreme weather events, natural disasters and the impacts of climate change. Many are located in regions with a high density of tropical cyclones. In addition, their small economies and in many cases dispersed and remote geographies make them poorly equipped to respond to these extreme weather events. As in other developing countries, rapid urbanisation, population growth and climate change are increasing the exposure of SIDS to disaster risk (Mimura, 2007^[14]). Climate change is creating new development challenges due to sea level rise, changing rainfall patterns, coastal erosion, coral bleaching, and the degradation of the natural ecosystems upon which these countries depend for food and tourism.

While absolute losses⁷ from natural disasters and climate-related events are dwarfed by those in larger economies, the relative impacts on SIDS are often far greater (Figure 2). Given the small size of SIDS economies, the effects of a single natural disaster can be huge and devastating in national terms, wiping out large parts of key industries, affecting swathes of the country or whole islands rather than isolated regions, or damaging critical pieces of infrastructure for which there are few or no local alternatives.⁸ Often times, natural disasters have translated into losses of up to 200% of GDP for SIDS, as was the case for Grenada with hurricanes Ivan and Emily in 2004-05, for Dominica with tropical storm Erika in 2015 (90% of GDP damages) and with hurricanes Irma and Maria in 2017 (220% of GDP losses). Globally, SIDS make up two thirds of the countries that suffer the highest relative losses from natural disasters – between 1% and 9% of their GDP each year (OECD/The World Bank, 2016^[15]). They are also 14 out of the 20 countries with the highest average annual disaster losses as a share of their GDP (World Bank, 2012^[16]). Further, the costs of humanitarian assistance and reconstruction are comparatively higher in SIDS given their reliance on imported materials and the logistics of reaching populations that are often remote and spatially dispersed. As such, natural disasters contribute to aggravating SIDS' ballooning debt by requiring large financial commitments to periodically address post-disaster reconstruction efforts and to finance climate adaptation measures (OECD, 2018^[12]).



Figure 2. Losses from natural disasters across income groups and SIDS, 2000-15

Source: OECD (2016^[15]), *Climate and Disaster Resilience Financing in Small Island Developing States*, <https://dx.doi.org/10.1787/9789264266919-en>.

Box 2. SIDS in the international agenda for sustainable development

The special development case of SIDS was first acknowledged by the international community in the Rio Declaration, issued by the 1992 UN Conference on Environment and Development (also known as the Earth Summit). Since then, the UN held several meetings to discuss actions to support sustainable development efforts in SIDS (Barbados, 1994; Mauritius, 2005; Samoa, 2014). In particular, the third International Conference on Small Island Developing States held in Samoa in 2014 resulted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway, which will go through a high-level review of progress by the UN General Assembly in 2019 (UN, n.d.^[17]).

SIDS specific development challenges and needs are also acknowledged in a number of global international declarations and initiatives, including the Sendai Framework for Disaster Risk Reduction, the 2030 Agenda for Sustainable Development, and the Addis Ababa Action Agenda. The adoption of the 2030 Agenda for Sustainable Development in 2015 established ambitious development goals for all countries. The 2030 Agenda constitutes a comprehensive plan of action for international development agreed by the international community gathered at the UN. It presents 17 Sustainable Development Goals (SDGs) and 169 targets to be reached by 2030, covering the three dimensions of sustainable development – economic, social and environmental – while seeking to promote peace and calling for inclusive partnerships to achieve all SDGs.

In the same year, the Addis Ababa Action Agenda of the Third International Conference on Financing for Development was agreed to support implementation of the 2030 Agenda. It sets out a global framework for financing development around a number of areas: domestic public resources, domestic and international private business and finance, international development co-operation, international trade, debt and debt sustainability, systemic issues, and science, technology, innovation and



capacity-building. Still in 2015, SIDS played a leading role in reaching the historic Paris Agreement at the UN Framework Convention on Climate Change, which acknowledged the acute vulnerability of SIDS and provided an international framework for ongoing financial and technical support as they seek to transition to climate-resilient green economies.

Financing for sustainable development in SIDS

External finance

The structural characteristics described above result in significant challenges for SIDS to mobilise both the public and private domestic resources required for achieving the 2030 Agenda on Sustainable Development (United Nations, 2015^[18]).

More than other developing countries, SIDS face challenges in attracting significant and stable flows of private finance.

Foreign investments are low and volatile and often weigh lightly on SIDS' overall external financing. From 2015 to 2018, foreign direct investments and other private finance flows represented on average 8% of external finance⁹ to SIDS from DAC countries, compared to 19% across all developing countries (OECD, 2018^[12]). External private finance flows to SIDS have become particularly volatile after the global financial crisis of 2008-09. Thirteen SIDS experienced negative net private flows over the biennium 2008-09, with more private finance flows leaving than entering these economies.¹⁰ These trends are due to the formidable barriers to access international capital markets through bonds, other securities or debt, caused by the perception of risk and the limited size of possible transactions. SIDS also have limited appeal to foreign investors due to their remoteness from markets and shipping lanes and their poor penetration in global value chains. Finally, many SIDS (especially in the Pacific) lack the creditworthiness to raise funds in capital markets, while many others (especially in the Caribbean) have recently experienced a deterioration in international capital-market ratings due to their large debt burdens. These challenges persist even if some SIDS have been pioneers in using new financing instruments to attract private finance, and despite new instruments are becoming available to attract sustainable finance.¹¹

Therefore, external finance to most SIDS is dominated by remittances and ODA, which represent the two largest sources of external finance for SIDS as a group. Figure 3 shows that remittances from DAC countries accounted for 62% of external finance to SIDS on average between 2015 and 2018 (USD 45.1 billion). This compares to 33% across all developing countries over the same period and is largely due to large diasporas and brain drain in many SIDS. Remittances accounted for even larger shares of external financing for the Dominican Republic, Jamaica and Guyana, reaching above 70% on average between 2015 and 2018 (OECD, 2020^[3]).

ODA from bilateral providers of development co-operation and multilateral organisations represents the second largest external flow for SIDS as a whole, at 28% of total external finance between 2015 and 2018, or USD 20.7 billion. For 15 SIDS, ODA accounted for the largest external finance flow from 2015 to 2018. However, ODA may represent a less certain source of external finance for SIDS in the near future, as several of them have already or are about to reach high-income status, thus becoming ineligible for ODA (see ODA eligibility criteria in Box 1). That said, SIDS' economic and climate vulnerabilities that derive from their geophysical characteristics do not diminish with the rise of GNI per capita levels (OECD, 2018^[12]). Therefore, most SIDS have greater difficulty than larger economies with similar income levels to diversify their economies and find alternative sources of financing. Many continue

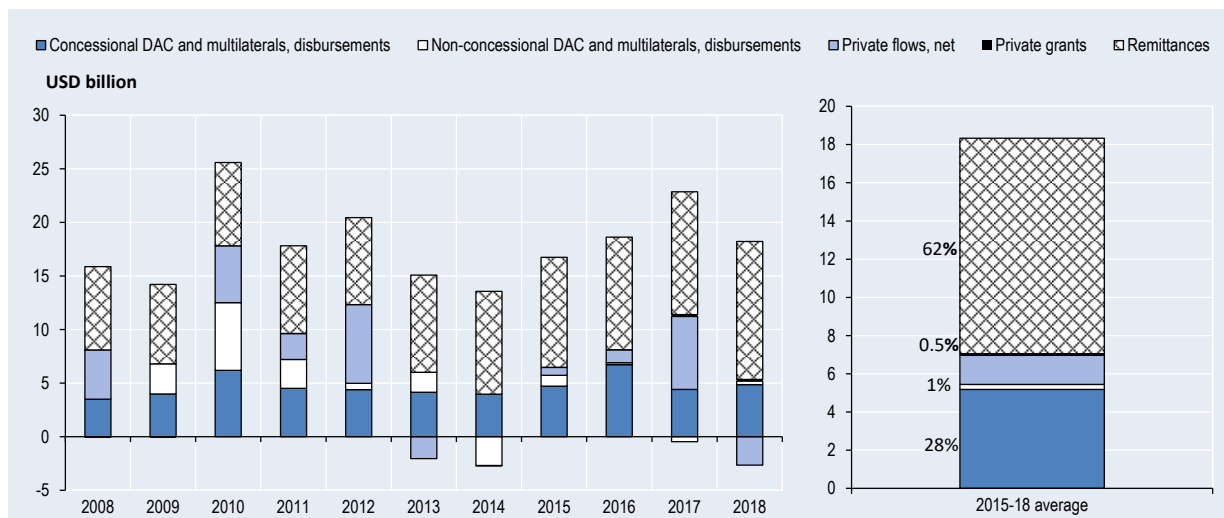


to remain structurally dependent on external finance from other countries and the international community.

Scarce ODA resources can be used more strategically to support mobilisation of public and private resources in SIDS, including by strengthening governments’ tax collection capacity and by mobilising private capital for sustainable economic activities.

Between 2017 and 2018, providers of development co-operation have already invested USD 105 million of ODA to improve the efficiency of revenue collection and enhance domestic revenue mobilisation in SIDS. There is scope for increasing this support to a larger number of SIDS, as these amounts were largely concentrated (76%) in Papua New Guinea and represented only 1.1% of the total ODA to SIDS in this period. Between 2013 and 2015, providers of development co-operation have also mobilised USD 701 million of private finance in SIDS (USD 175 million on average per year) (OECD, 2018^[12]; Benn, Sangaré and Hos, 2017^[19]) through the use of grants, guarantees and other instruments for improving the risk-return profile of investments for private investors, as well as for absorbing the costs of project preparation and for the identification of pipelines of bankable projects.

Figure 3. Total external financing to SIDS, 2008-18



Note: Remittances only include flows from DAC Countries. Remittance data are unavailable for the Cook Islands, Cuba, Nauru, Niue, and Montserrat.

Source: OECD (2020^[3]), Creditor Reporting System (database), <https://stats.oecd.org/Index.aspx?DataSetCode=crs1>.

Domestic resources: Tax and non-tax revenues

The unique characteristics and development challenges faced by SIDS affect the stability of their public revenues and generate higher public sector expenditure needs. As discussed above, SIDS are more likely than other developing countries to rely for public revenues on a few key economic sectors that are more vulnerable to external shocks. This is particularly apparent in the COVID-19 crisis that is deeply affecting overall economic activity, international trade, tourism flows and international commodity prices, especially in SIDS that depend on the tourism sector and/or on commodity exports. At the same time, in many SIDS the high costs of providing services to small and scattered populations results in higher

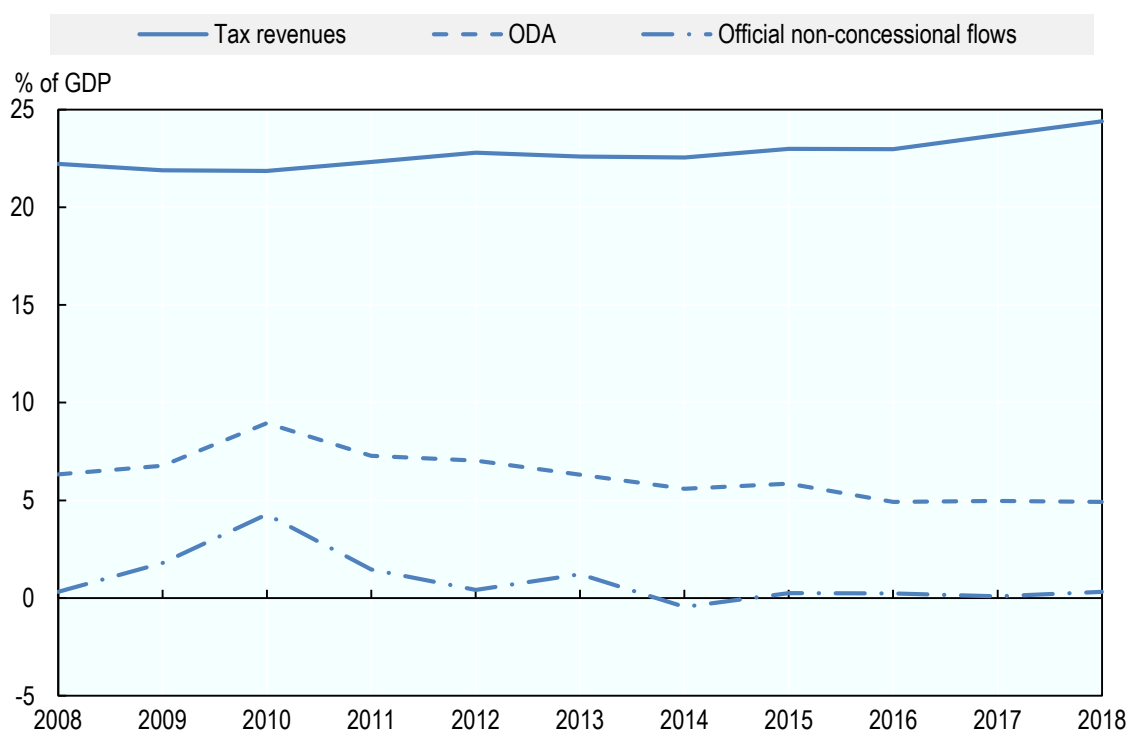


average public sector expenditures than other developing countries (on average, 29% of GDP, compared to 22% in other developing countries in 2014 (Horscroft, 2014_[20])). The extreme weather and natural disasters to which SIDS are exposed also tend to have heavy fiscal impacts. One extreme climate event can swipe out entire economic sectors in SIDS, halting or disrupting future development. Further, SIDS often lack financial buffers, such as cash surpluses and international reserves, for responding to shocks, and the costs of humanitarian responses, recovery and reconstruction are often higher due to, again, their small, scattered and remote populations.

These combined factors lead to high levels of public debt in many SIDS that reduce the scope for SIDS governments to invest in development. Debt-to-GNI ratios were 57% on average for SIDS compared to 47% on average for all developing countries in 2015 and are particularly high in middle-income SIDS, largely in LAC. Debt-servicing costs account for a high share of public expenditure and of GDP in many SIDS, especially middle-income countries with a larger share of commercial debt (rather than concessional debt) (OECD, 2018_[12]).

To offset the combined impact of narrow and exposed economies, vulnerability to natural disasters and climate change, and higher public expenditure, tax revenue mobilisation is critical in SIDS. Tax revenues represent a significantly larger and more stable source of government resources than ODA and official non-concessional flows, as indicated for the 14 ODA-eligible SIDS in the OECD's *Global Revenue Statistics Database* in 2018 (Figure 4). This is particularly true for Pacific SIDS in *Revenue Statistics* (Figure 5).¹²

Figure 4. Total tax revenues, ODA and official non-concessional flows in selected SIDS, 2008-18

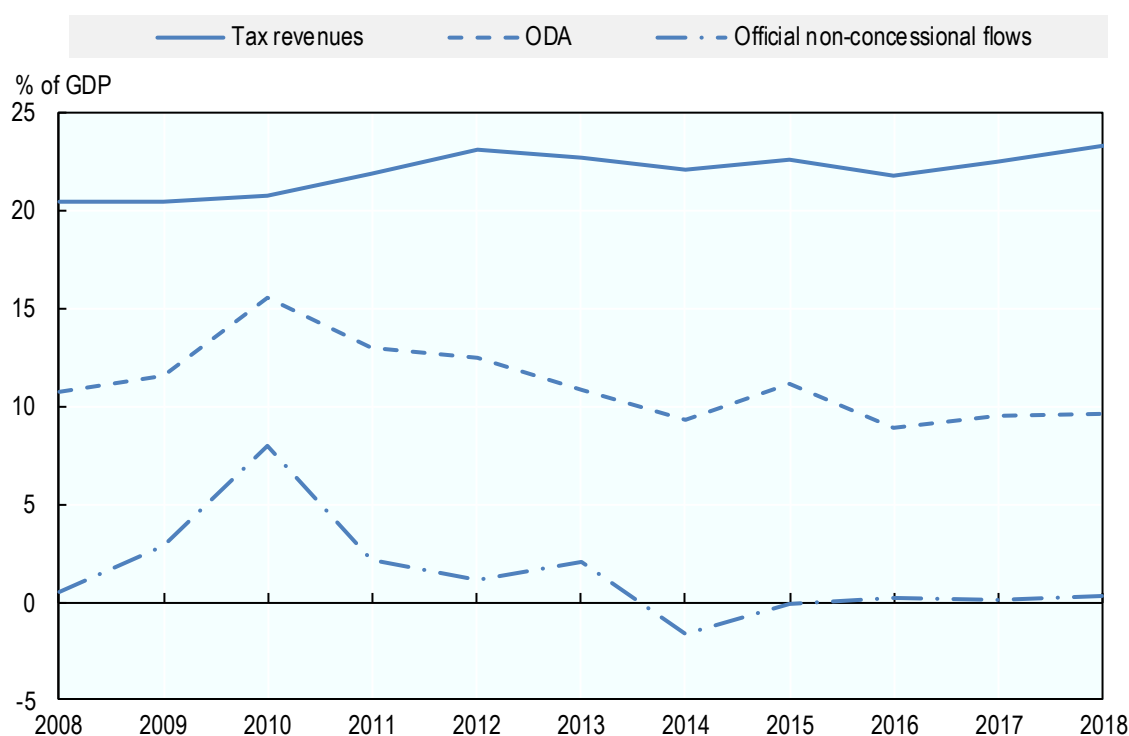


Note: Data for 14 SIDS in Revenue Statistics which were ODA-eligible in 2018 (Belize, Cabo Verde, the Cook Islands, Cuba, the Dominican Republic, Fiji, Guyana, Jamaica, Mauritius, Papua New Guinea, Saint Lucia, Samoa, the Solomon Islands, Vanuatu). It excludes Nauru as tax revenue data for this country is only available from 2014. ODA and official non-concessional flows include both official grants and loans, therefore net flows can be negative when reimbursement of loans is higher than grants and provision of loans in a given year.

Source: Calculations based on OECD (2020_[8]) Global Revenue Statistics Database, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL, and ODA/DAC, Flows by Provider and Recipient, <https://stats.oecd.org/>.



Figure 5. Total tax revenues, ODA and official non-concessional flows in selected Pacific SIDS, 2008-18



Note: Data for six Pacific SIDS in Revenue Statistics which were ODA-eligible in 2018 (the Cook Islands, Fiji, Papua New Guinea, Samoa, the Solomon Islands and Vanuatu). It excludes Nauru as tax revenue data for this country is only available from 2014. ODA and official non-concessional flows include both official grants and loans, therefore net flows can be negative when reimbursement of loans is higher than grants and provision of loans in a given year

Source: Calculations based on OECD (2020_[8]) Global Revenue Statistics Database, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL, and ODA/DAC, Flows by Provider and Recipient, <https://stats.oecd.org/>.

Tax revenue mobilisation in small island developing states

Despite the challenges in mobilising domestic resources in SIDS, many have been able to increase tax revenues over the last decades. In the first two decades of the 21st century, several SIDS have implemented tax policy and tax administration reforms, which combined with a generally favourable economic context have led to increases in tax-to-GDP ratios and changes in countries' tax structures. However, the unique development challenges faced by SIDS make tax revenues in these economies especially vulnerable to fluctuations. The impact of COVID-19 on tourism, international trade, commodity prices and the overall economy is likely to generate an important shock in SIDS' domestic revenues and jeopardise progress made since the global financial crisis in 2008.

The analysis in this section relies on two key indicators of tax revenue mobilisation – the tax-to-GDP ratio and tax structure – in SIDS which were ODA-eligible in 2018 and for which comparable tax revenue data are available in the OECD *Global Revenue Statistics Database* (OECD, 2020_[8]).¹³ The tax-to-GDP ratio is a key measure of the level of tax revenue mobilisation. It relates tax revenues to the economy from which such revenues are generated, allowing for comparison across countries and over time. The tax structure shows the composition of tax revenues across different tax types (e.g. taxes on income and profits, taxes on goods and services, taxes on property, and social security contributions), each of which have different social and economic impacts.¹⁴

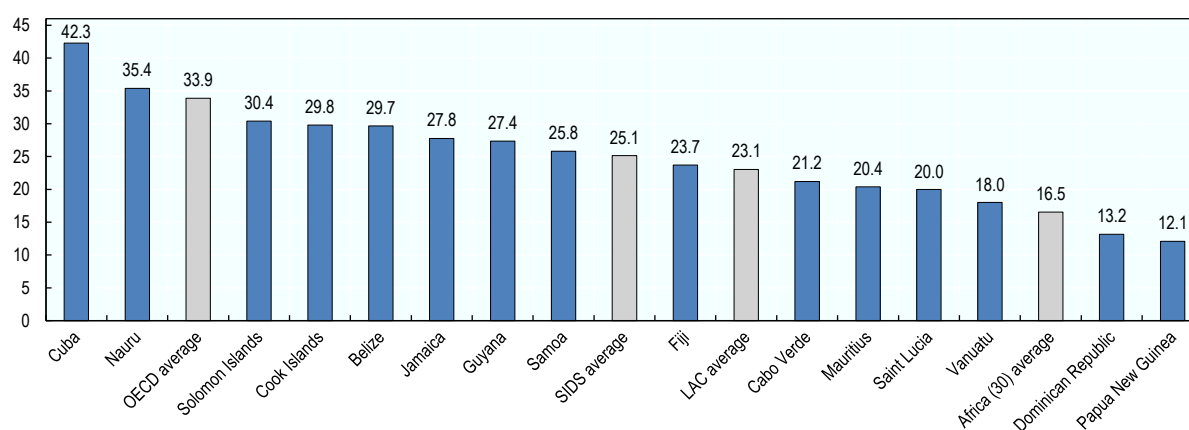


Tax levels and composition in SIDS

Tax-to-GDP ratios in 2018

On average, tax-to-GDP ratios in the ODA-eligible SIDS covered in *Revenue Statistics* are higher than in Africa and in LAC. In 2018, the average tax-to-GDP ratio for this group of SIDS was 25.1%. This was above the LAC average (23.1%) and the Africa (30) average (16.5%).¹⁵ Most ODA-eligible SIDS in *Revenue Statistics* were able to mobilise significant amounts of tax revenues in comparison to averages for other regions: 9 out of the 15 SIDS had tax-to-GDP ratios above the LAC average and 13 out of 15 had ratios above the Africa (30) average. Tax-to-GDP ratios varied widely among them, from 42.3% in Cuba and 35.4% in Nauru – above the OECD¹⁶ average – to 13.2% in the Dominican Republic and 12.1% in Papua New Guinea – below the Africa (30) average (Figure 6). No marked regional difference can be observed in tax-to-GDP levels across SIDS.

Figure 6. Tax-to-GDP ratios (total tax revenue as percentage of GDP) in SIDS and regional averages, 2018



Note: SIDS average calculated as unweighted average for 15 ODA-eligible SIDS in OECD (2020^[a]), Global Revenue Statistics Database, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

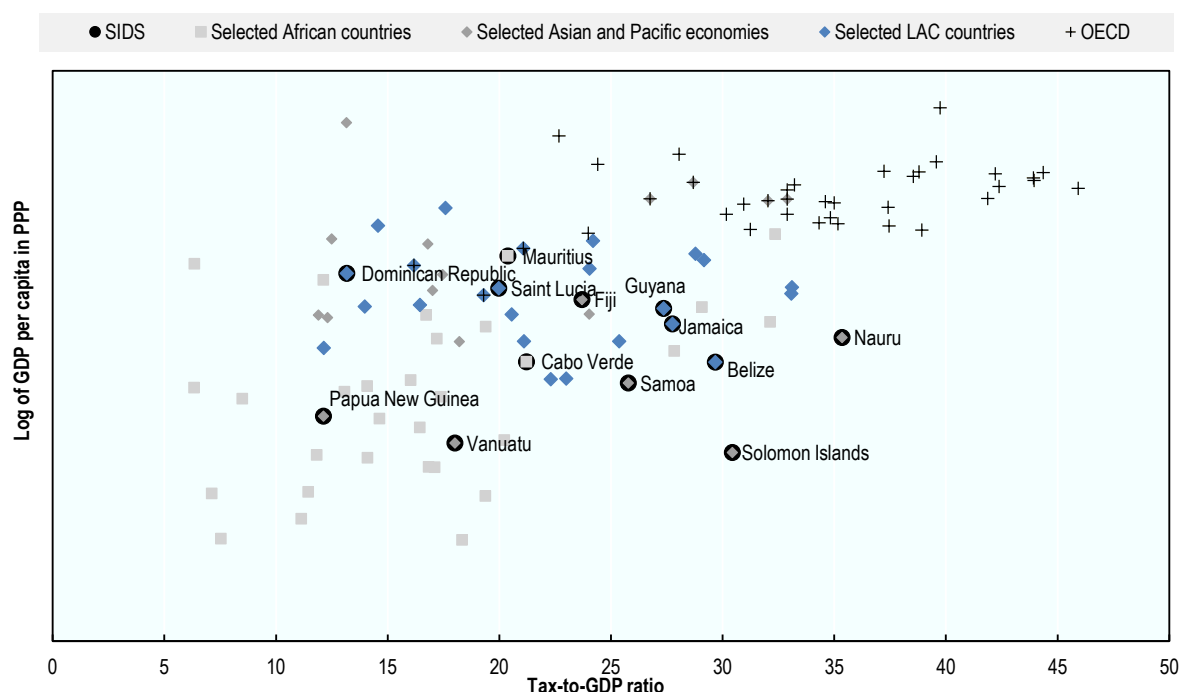
Source: Calculations based on *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

In 2018, ODA-eligible SIDS with tax-to-GDP ratios higher than the group average were typically those that implemented tax policy and administration reforms in previous years, sometimes combined a favourable economic context (see further details on past reforms in the section “Tax revenue trends in SIDS over time”). These SIDS have been able to mobilise increased tax revenues over the past years – leading to higher tax-to-GDP ratios – despite their small size: many of them have small populations (less than 1 million people) and/or small GDP at purchasing power parity (PPP) exchange rates (less than USD 10 billion) (see Table 3).

Unlike the broader group of 109 economies included in the OECD *Global Revenue Statistics Database*, tax-to-GDP ratios across ODA-eligible SIDS are not strongly correlated with income level (Figure 7). In 2018, for all economies in the *Global Revenue Statistics Database*, there was a positive correlation between GDP per capita (in PPP) and tax-to-GDP ratios (a correlation coefficient of 0.64). For ODA-eligible SIDS, the correlation was much weaker and slightly negative (a correlation coefficient of -0.08).¹⁷



Figure 7. Tax-to-GDP ratios and GDP per capita (in PPP) in SIDS, Asia-Pacific, LAC, OECD and African economies, 2018



Note: Excludes economies for which GDP per capita PPP is not available (the Cook Islands, Cuba and Tokelau) or for which 2018 tax-to-GDP ratios were not available at the time this paper was prepared (Venezuela).

Source: Calculations based on OECD (2020_[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

Tax structures in 2018

While tax revenue levels across ODA-eligible SIDS vary, there is greater similarity in the composition of their tax revenues. In 2018, taxes on goods and services (including value added taxes (VAT)) were the most important source of tax revenues in all but two ODA-eligible SIDS in *Revenue Statistics* (Figure 8). This result is consistent with Africa (30) and LAC, where taxes on goods and services also represent an important share of tax revenues. On average, taxes on goods and services accounted for 62.6% of total tax revenues in ODA-eligible SIDS in 2018, while they represented 51.9% in Africa (30) and 50.1% in LAC, on average. One notable distinction is the share of VAT in total tax revenues: VAT was less significant on average in ODA-eligible SIDS (26.5% of total tax revenues, on average) than in Africa (30) (29.7%) and in LAC (27.8%) in 2018. Other taxes on goods and services¹⁸ therefore represented, on average, 36.1% of total tax revenues in ODA-eligible SIDS while they made up 22.2% of total tax revenues in Africa (30) and in LAC (Table 1).

The smaller relative importance of VAT in the ODA-eligible SIDS included in this paper is partially explained by the fact that three of them have not yet adopted VAT (Cuba, Nauru and the Solomon Islands, the latter of which is studying its implementation), by the importance of taxes on specific goods and services in these economies, and by the fact that VAT is under-utilised in some SIDS. The introduction of VAT has been the cornerstone of tax reforms introduced by many SIDS over the past decades (Greenidge, McIntyre and Yun, 2016_[21]; Murray, Oliver and Wyatt, 2014_[22]; Schlotterbeck, 2017_[23]) (see the discussion on recent reforms in the section “Tax revenue trends in SIDS over time”): the majority of ODA-eligible SIDS introduced VAT prior to 2000¹⁹ with a handful introducing it afterwards²⁰. As a result, in 2018 VAT revenues were the largest share of total taxation for half of the ODA-eligible SIDS that have

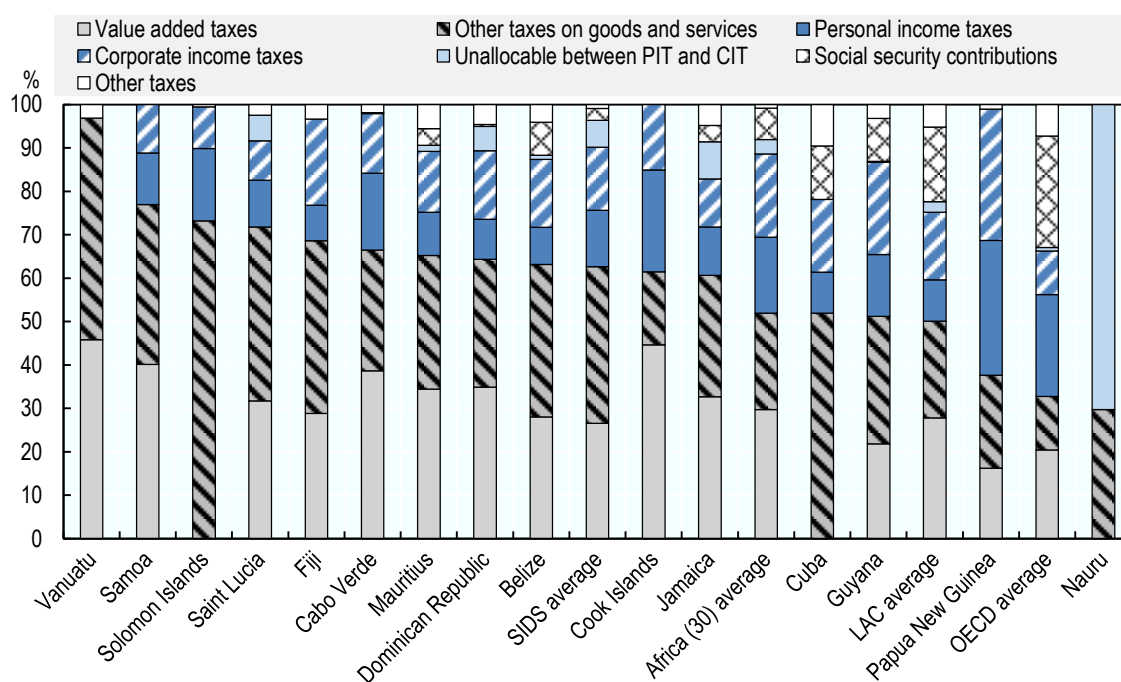


a VAT system. However, VAT revenues are still lower than their potential in several SIDS due to a combination of policy settings (e.g. exemptions, reduced or zero-rates, low thresholds) and administrative challenges (e.g. filing rates, inaccurate reporting, non-payment of liabilities) (Schlotterbeck, 2017^[23]).

Taxes on specific goods and services were an important source of revenue in many ODA-eligible SIDS in 2018: on average, they represented 29.1% of total tax revenues and 7.1% of GDP in SIDS, a higher average than in Africa (30) (20.8% total taxation, 3.4% of GDP) and in LAC (16.7% of total taxation, 3.8% of GDP). The main taxes on specific goods and services applied in ODA-eligible SIDS are:

- Excises (e.g. on alcohol, sugary drinks, tobacco, oil and petroleum, motor vehicles, imports, domestic excises, and environmental taxes), which represented 12.8% of total tax revenues in ODA-eligible SIDS on average.
- Customs and import duties, amounting to 11.6% of total tax revenues in ODA-eligible SIDS on average.
- Taxes on specific services, including tourism (departure tax, hotel, travel), telecommunications (telephone, messaging), insurance, bank and other asset tax, financial services, betting and gaming, at 3.8% of total tax revenues in ODA-eligible SIDS on average.
- Taxes on exports, which are only significant in the Solomon Islands at 26.5% of total tax revenues (from export duty on minerals, shells, fish, timber/log and other products).

Figure 8. Tax structure as percentage of total tax revenue in SIDS and regional averages, 2018



Note: SIDS average calculated as unweighted average for 15 ODA-eligible SIDS in *Revenue Statistics*. Other taxes include taxes on payroll and workforce as well as taxes on property.

Source: Calculations based on OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

In 2018, the relative share of income taxes (personal and corporate) on total taxation in ODA-eligible SIDS was lower, on average, than in Africa (30) and in the OECD, but above LAC (Table 1). In most of them (13 out of 15), income tax revenues represented less than 40% of total taxation, with one (Vanuatu) levying



neither personal nor corporate income taxes. The highest share of income taxes as a proportion of total taxation was observed in Nauru and Papua New Guinea. Income tax revenues in ODA-eligible SIDS are often affected by many factors common to other developing countries, including the level of informality in their economies as well as tax holidays and incentives that narrow the tax base (IMF, 2013^[24]; PFATC, 2017^[25]; Schlotterbeck, 2017^[23]), even after reforms introduced in the past decades to reduce rates and broaden the base (Greenidge, McIntyre and Yun, 2016^[21]; Murray, Oliver and Wyatt, 2014^[22]).

The share of revenues from corporate income taxes (CIT) in total taxation in ODA-eligible SIDS (14.5%) was lower than the LAC average (15.5%) and the Africa (30) average (19.2%), but above the OECD average (10.0%). However, among ODA-eligible SIDS,²¹ CIT revenues represented a higher share of total taxation than revenues from personal income taxes (PIT) on average. CIT was more important than PIT in most upper-middle income SIDS (Belize, Cuba, the Dominican Republic, Fiji, Guyana, Mauritius) as well as in ODA-eligible SIDS in LAC (Belize, Cuba, the Dominican Republic, Guyana).

The share of PIT revenues in ODA-eligible SIDS was on average 13.0% of total taxation, lower than the Africa (30) average (17.5%) and the OECD average (23.5%), but higher than the LAC average (9.6%). For ODA-eligible LAC SIDS, the share of PIT revenues in total taxation was even lower, at 10.6% on average, closer to the LAC average. This may be partly due to the fact that ODA-eligible LAC SIDS have a relatively high share of social security contributions in comparison to other ODA-eligible SIDS. In addition, complex PIT systems in several LAC SIDS can discourage voluntary compliance and increase administration costs to assist taxpayers and facilitate PIT collection (Schlotterbeck, 2017^[23]). Among ODA-eligible SIDS, PIT was more important than CIT in all lower middle-income SIDS (Cabo Verde, the Solomon Islands, Papua New Guinea) and in most Pacific SIDS (except Fiji). This contrasts with the respective shares of PIT and CIT in the broader group of economies in the OECD *Global Revenue Statistics Database*, where lower-income countries are more likely to rely on CIT, and the large majority of OECD countries relies more on PIT. While ODA-eligible SIDS rely more on consumption taxes, the PIT are typically more progressive, with the potential to promote income redistribution and decrease post-tax income inequality.

Finally, social security contributions played a small role in total taxation in ODA-eligible SIDS (on average, 2.7% of total taxation in 2018), relative to Africa (30) (7.2%), LAC (17.1%) and the OECD (25.7%). There is however a marked regional difference among ODA-eligible SIDS in *Revenue Statistics*: only those SIDS in LAC²² and Africa (Cabo Verde and Mauritius) collect social security contributions, while the ones in the Pacific do not. The relatively high share of PIT in ODA-eligible SIDS on average – and in Pacific SIDS in particular – in comparison to the LAC average reflects the financing of social services from general revenues rather than from social security contributions.

Table 1. Tax categories as percentage of total tax revenue in SIDS and regional averages, 2018

	Value added taxes	Other taxes on goods and services	Personal income taxes	Corporate income taxes	Unallocable between PIT and CIT	Social security contributions	Other taxes
Belize	28.0	35.1	8.6	15.6	1.0	7.6	4.1
Cabo Verde	38.7	27.8	17.7	13.7	0.0	0.2	1.9
Cook Islands	44.6	16.8	23.5	15.1	0.0	0.0	0.0
Cuba	0.0	51.9	9.5	16.8	0.0	12.3	9.5
Dominican Republic	34.9	29.4	9.2	15.8	5.6	0.5	4.6
Fiji	28.8	39.8	8.2	19.9	0.0	0.0	3.3
Guyana	21.9	29.4	14.2	21.3	0.2	9.9	3.2
Jamaica	32.7	27.9	11.1	11.1	8.5	3.7	4.8
Mauritius	34.5	30.7	10.0	14.0	1.5	3.8	5.6
Nauru	0.0	29.8	70.2	0.0	0.0
Papua New Guinea	16.2	21.4	31.1	30.2	0.0	0.0	1.1
Saint Lucia	31.7	40.0	10.8	9.1	5.9	..	2.5



Samoa	40.1	36.9	11.9	11.2	0.0	0.0	0.0
Solomon Islands	0.0	73.2	16.7	9.6	0.0	0.0	0.5
Vanuatu	45.8	51.0	0.0	0.0	0.0	0.0	3.1
SIDS average	26.5	36.1	13.0	14.5	6.2	2.7	0.9
Africa (30) average	29.7	22.2	17.5	19.2	3.3	7.2	0.8
LAC average	27.8	22.2	9.6	15.5	2.5	17.1	5.2
OECD average	20.4	12.3	23.5	10.0	0.8	25.7	7.2

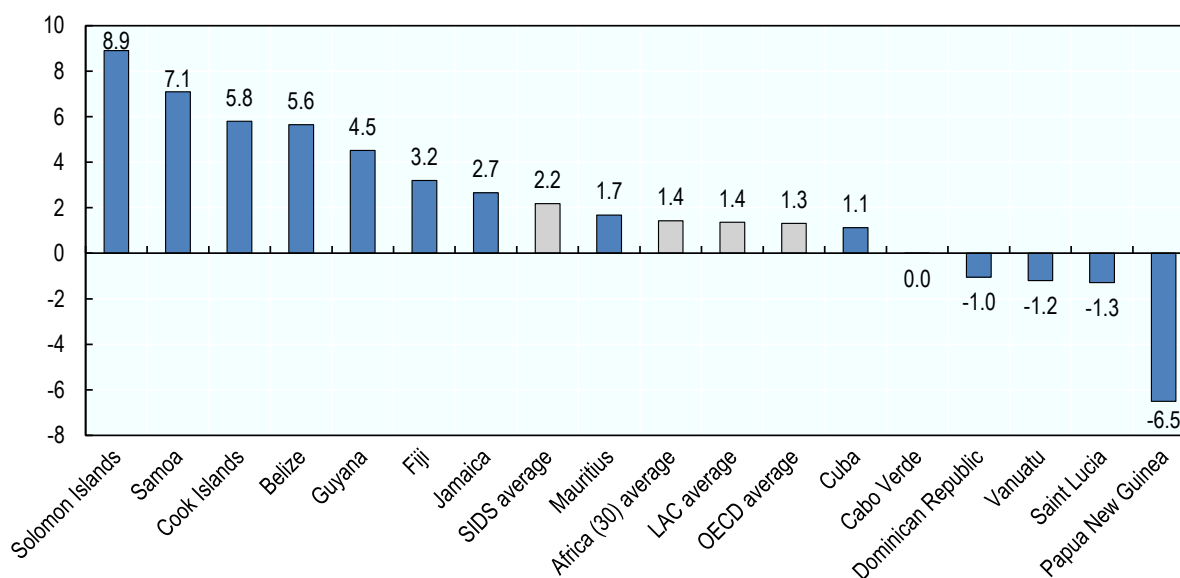
Note: SIDS average calculated as the unweighted average for the 15 ODA-eligible SIDS in *Revenue Statistics*. Other taxes include taxes on payroll and workforce as well as taxes on property. Fields are marked as ("..") where data is not available.

Source: Calculations based on OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

Tax revenue trends in SIDS over time

The average tax-to-GDP ratio for the group of ODA-eligible SIDS was increasing after the global financial crisis and before the COVID-19 pandemic, driven by a series of tax policy and administration reforms and favourable economic conditions in many of them. Between 2008 and 2018, the average tax-to-GDP ratio for this group of SIDS increased by 2.2 percentage points (p.p.), more than the Africa (30), LAC and OECD averages (Figure 9). The greatest increases were observed in the Solomon Islands (8.9 p.p.) and in Samoa (7.1 p.p.), while the largest decrease occurred in Papua New Guinea (6.5 p.p.). Most ODA-eligible Pacific SIDS (except Papua New Guinea and Vanuatu) saw increases in their tax-to-GDP ratios over the period. Tax-to-GDP ratios across ODA-eligible SIDS in *Revenue Statistics* diverged during the period, with the standard deviation across all SIDS increasing from 5.92 in 2008 to 7.56 in 2018.²³

Figure 9. Changes in tax-to-GDP ratios in SIDS and regional averages, percentage points, 2008-18



Note: SIDS average calculated as unweighted average for 14 ODA-eligible SIDS in *Revenue Statistics*. Data refer to the changes between 2008 and 2018 except for Africa (30) average which refers to the change between 2010 and 2018 due to data availability. Nauru is excluded from this figure as it only has data between 2014 and 2018.

Source: Calculations based on OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

Over this period, higher revenues from taxes on goods and services (including VAT) were the main driver of increases in tax-to-GDP ratios, while income taxes (especially CIT) were the main driver of the biggest



decreases (Figure 10). This has led to a general shift from direct to indirect taxation, as a result of economic conditions as well as a series of tax policy and administration reforms undertaken by many ODA-eligible SIDS. These reforms have largely focused on taxes on goods and services, in particular by moving away from trade taxes and introducing and/or changing rates of VAT (David and Leigh, 2018^[26]; Gómez-Sabañi and Morán, 2014^[27]; Greenidge, McIntyre and Yun, 2016^[21]; Murray, Oliver and Wyatt, 2014^[22]; OECD, 2020^[10]; OECD et al., 2020^[11]; Schlotterbeck, 2017^[23]). The reforms in LAC SIDS started earlier, in the 1990s and 2000s, while the Pacific SIDS introduced reforms after 2000. In both cases, the reforms were often part of a broader move towards trade liberalisation: in the case of the Caribbean, they accompanied the introduction of the Caribbean Community (CARICOM) Common External Tariff (Greenidge, McIntyre and Yun, 2016^[21]) and, in the Pacific, they were a result of membership of the World Trade Organization and two regional agreements: the Pacific Island Countries Trade Agreement (PICTA) and the Pacific Agreement on Closer Economic Relations (PACER) (Murray, Oliver and Wyatt, 2014^[22]). Many LAC and Pacific SIDS have also lowered PIT (via reduction in marginal rates or increases in tax free threshold) and CIT throughout the 2000s (Greenidge, McIntyre and Yun, 2016^[21]; Murray, Oliver and Wyatt, 2014^[22]).

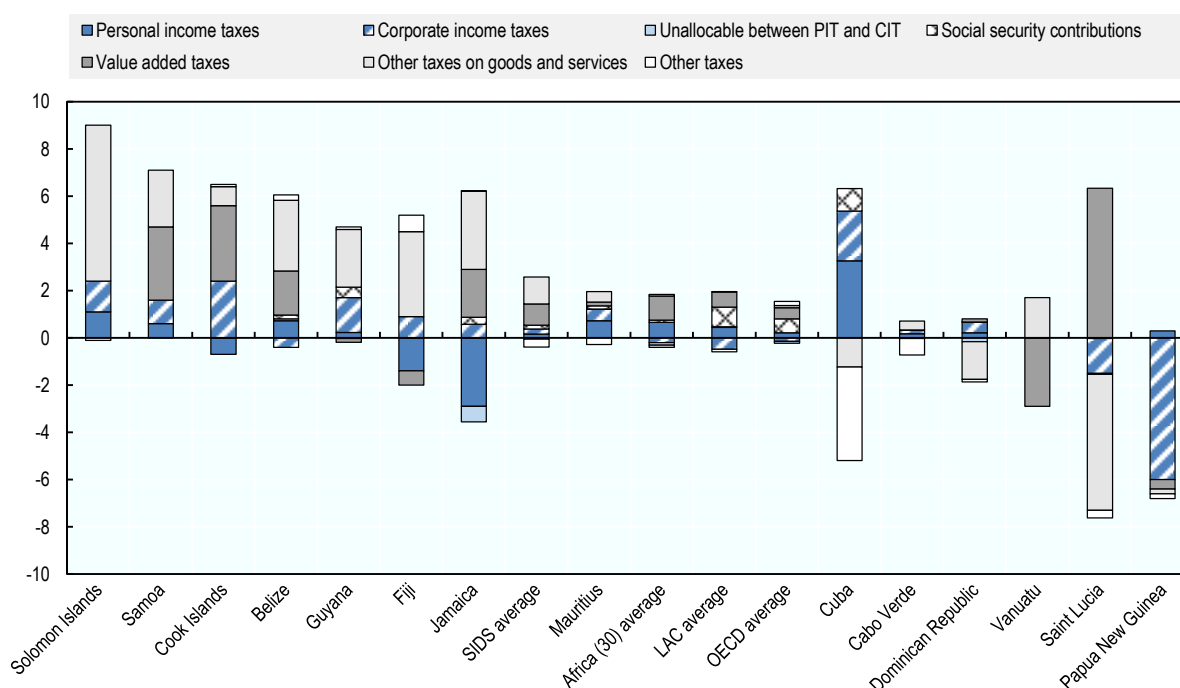
Even after several reforms over the past decades which have improved taxation systems, ODA-eligible SIDS still face challenges to mobilise additional tax revenues, several of which are common to other developing countries. These include: high levels of informality, low administrative capacity, low tax compliance (an even greater challenge in geographically dispersed SIDS), continued reliance on tax incentives and exemptions across different tax types (Greenidge, McIntyre and Yun, 2016^[21]; IMF, 2013^[24]; Murray, Oliver and Wyatt, 2014^[22]; Schlotterbeck, 2017^[23]; Tumbarello, Cabezon and Wu, 2013^[28]).

Between 2008 and 2018, tax-to-GDP ratios were most impacted by changes in the numerator (nominal tax revenues) rather than the denominator (nominal GDP) in ODA-eligible SIDS with the biggest increases (Samoa and the Solomon Islands) and decreases (Papua New Guinea); i.e. nominal tax revenue growth exceeded nominal GDP growth in most countries, but grew more slowly than GDP growth in countries that experienced decreases in their tax to-GDP ratios over the period (see Annex 1.A):

- In the Solomon Islands, robust economic growth and increased exports of timber and log (logging is the country's main economic sector), combined with tax policy and administration reforms have generated additional revenues from both income taxes and taxes on goods and services (Murray, Oliver and Wyatt, 2014^[22]; OECD, 2020^[10]; OECD, 2019^[29]).
- In Samoa, major tax policy and administrative reforms have broadened the tax base, removed exemptions, and improved tax administration efficiency and compliance, contributing to an overall rise of tax revenues over the years. This included: modernising the tax administration act; adopting a new VAT law; increasing the threshold of VAT and excise tax rates; creating new tax administration units and improving taxpayers' services; implementing an online system for registration, filing and payment (Murray, Oliver and Wyatt, 2014^[22]; OECD, 2020^[10]; OECD, 2018^[30]).
- In Papua New Guinea, declining natural resource prices have reduced the profitability of companies in the mining and oil sector, decreasing CIT revenues. Between 2008 and 2018, Papua New Guinea's tax-to-GDP ratio decreased significantly, from being the 2nd lowest (at 18.6%) in 2008 to the lowest among SIDS (12.1%) in 2018 (OECD et al., 2019^[31]; OECD, 2020^[10]).



Figure 10. Net changes in tax-to-GDP ratios by main type of taxes in SIDS and regional averages, percentage points, 2008-18



Note: SIDS average calculated as unweighted average for 14 ODA-eligible SIDS in *Revenue Statistics*. Data refer to the changes between 2008 and 2018 except for Africa (30) average which refers to the changes between 2010 and 2018 due to data availability. Nauru is excluded from this figure and SIDS average as it only has data between 2014 and 2018.

Source: Calculations based on OECD (2020^[3]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

The economic crisis generated by the COVID-19 pandemic may endanger the progress in tax revenue mobilisation made by SIDS since the global financial crisis.

SIDS economies are expected to be hit harder by the current crisis than the broader group of developing countries and emerging economies for a variety of reasons. The downfall is expected to be most pronounced in SIDS economies dependent on tourism and, to a lesser extent, in resource-rich SIDS (OECD, 2021^[1]):

- According to the UN World Tourism Organization, international tourist arrivals decreased by 72% in SIDS between January and August 2020 (UNWTO, 2020^[32]). This sharp decrease is likely to affect economic activity in most of the ODA-eligible SIDS in *Revenue Statistics* particularly those eight economies highly dependent on tourism (Belize, Cabo Verde, Fiji, Jamaica, Mauritius, Saint Lucia, Samoa, Vanuatu) (Table 3). Belize, Fiji and Saint Lucia may be among the most affected, with an expected GDP contraction of up to 16% or more (OECD, 2021^[1]).
- For resource-rich SIDS, the impact will differ depending on the type of commodity they export. The fall in energy commodity prices in 2020 is likely to affect economic performance of oil-rich countries such as Papua New Guinea in that year,²⁴ and once again hit CIT revenues as was the case between 2008 and 2018. However, this negative impact is expected to be smaller than in SIDS economies dependent on tourism. The rise in the other commodity prices, such as precious



metals, will benefit some SIDS such as Guyana, where record economic growth is expected thanks to gold exports (OECD, 2021^[11]).

The economic downturn combined with tax-relief measures and amplified by the sharp reduction in tourism flows and volatility of commodity prices have the potential to reduce tax revenues in SIDS across the board, from corporate and personal income taxes to taxes on goods and services, which respond to the largest share of tax revenues and drove increases in tax-to-GDP ratios in many ODA-eligible SIDS between 2008 and 2018. The full extent of the decline in SIDS' tax revenues is yet to be measured but examples from a few countries can be illustrative:

- In Cabo Verde, tax revenues in 2020 are projected to be the lowest in three years (below 20% of GDP) driven by sharp declines in CIT and VAT revenues following tax-relief measures postponing CIT payments, contraction of economic activity, weaker domestic demand and lower imports, among other factors (IMF, 2020^[33]).
- In Fiji, total revenues (tax and non-tax) are expected to decline by 33.3% in the fiscal year 2021 (ending on 31 July), as a result of lower revenues from VAT (decrease of 8.2%) and custom duties (decrease of 44.2%) (Asian Development Bank, 2020^[34]).
- In Papua New Guinea, total revenues (tax and non-tax) are projected to decline by 2.9% of GDP in 2020 (Asian Development Bank, 2020^[34]).
- In LAC SIDS, VAT and income revenues were largely affected in the first half of 2020. VAT revenues contracted by 22.1% in Saint Lucia (cumulative January to June 2020), by 16.8% in Jamaica, and by 16.3% in the Dominican Republic (cumulative January to September 2020). Income tax revenues dropped by 25% in Saint Lucia (cumulative January to June 2020), by 9.7% in the Dominican Republic, and by 2.2% in Jamaica (cumulative January to September 2020) (Economic Commission for Latin America and the Caribbean (ECLAC), 2021^[35]).

Volatility of tax revenues in SIDS

Recent studies have considered how SIDS' unique development challenges generate greater revenue volatility than in other countries. This is due to SIDS' greater exposure to external shocks as well as their small, undiversified economies, making their domestic public revenues more volatile than those of other developing countries (Cabezón, 2016^[36]; Cabezón, Tumbarello and Wu, 2015^[37]; IMF, 2013^[24]; Tumbarello, Cabezón and Wu, 2013^[28]; World Bank, 2016^[38]). SIDS which are fragile states, commodity exporters and microstates are particularly susceptible to revenue volatility (Cabezón, Tumbarello and Wu, 2015^[37]; Tumbarello, Cabezón and Wu, 2013^[28]). Pacific SIDS, and in particular microstates, are also more vulnerable to revenue volatility, particularly from non-tax revenues (e.g. fishing licence fees) (Cabezón, 2016^[36]) (Tumbarello, Cabezón and Wu, 2013^[28]). These studies have measured revenue volatility in SIDS by using standard deviation²⁵ or coefficient of variation. The standard deviation measures the dispersion of a data set from its mean, and is measured in the same unit as the data. The coefficient of variation standardises the standard deviation by dividing it into the mean, giving the estimate of dispersion as a percentage of the mean.

The analysis in this section focuses on the coefficient of variation of tax-to-GDP ratios as a measure of volatility of tax revenues in SIDS.²⁶ The advantage of the coefficient of variation is that it standardises the measure of dispersion for countries with very different levels of tax-to-GDP ratios, and as it shows the variation in tax revenues for an individual country as a percentage of that country's mean tax-to-GDP ratio over the period, indicating essentially the fluctuation in the tax revenues available to the government as a percentage of the tax revenues the government has received on average.²⁷ The analysis finds that tax-to-GDP ratios were more volatile on average in ODA-eligible SIDS than in other economies in the OECD *Global Revenue Statistics Database*. SIDS in the Pacific, with lower income levels and with a high share of commodities in their exports displayed higher coefficients of variation among ODA-eligible SIDS, suggestive of greater volatility of tax-to-GDP ratios between 2008 and 2018. This section also considers



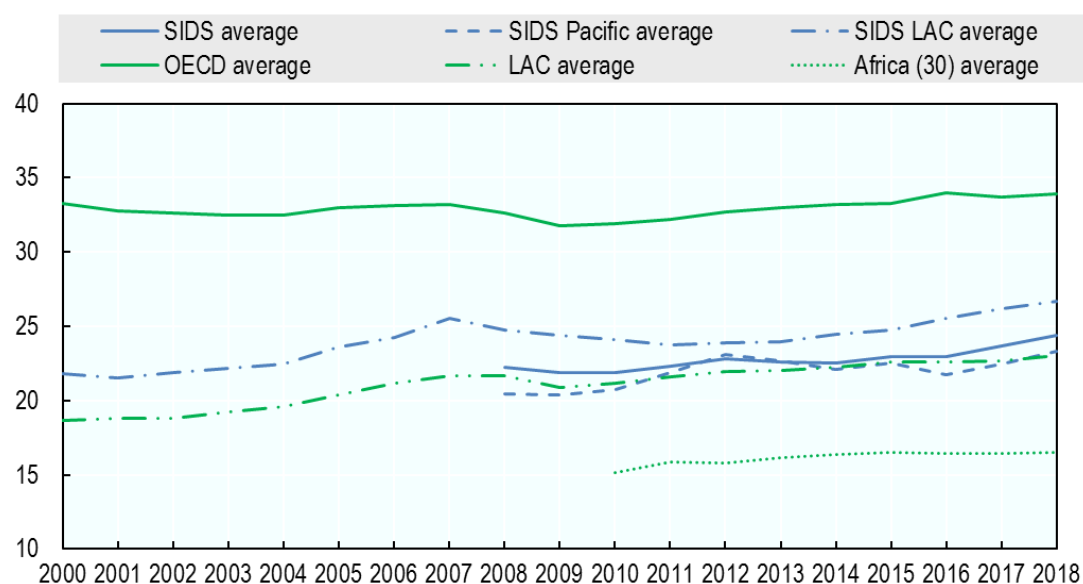
how the COVID-19 crisis may affect tax revenue volatility in SIDS in the future, via shocks to GDP growth, international tourism and commodity prices.

Tax revenue volatility in SIDS between 2008 and 2018

Between 2008 and 2018, tax-to-GDP ratios varied more strongly on average in ODA-eligible SIDS than in other economies in *Revenue Statistics*, with the exception of African countries. This nuances the analysis of recent studies that pointed to greater volatility of revenues in SIDS compared to other countries (Cabezón, 2016^[36]; Cabezón, Tumbarello and Wu, 2015^[37]; IMF, 2013^[24]; Tumbarello, Cabezón and Wu, 2013^[28]; World Bank, 2016^[38]). The average tax-to-GDP ratio for the group of ODA-eligible SIDS ranged from a low of 21.9% to a high of 24.4%, with an average of 22.8%. The average coefficient of variation of tax-to-GDP ratios for ODA-eligible SIDS (9.28%) was higher than the average for other economies in *Revenue Statistics* (7.11%), including LAC countries (6.03%) and OECD countries (4.14%).²⁸ However, it was lower than the average of the coefficients of variation of tax-to-GDP ratios of African countries (10.96%). Figure 11 shows the evolution of average tax-to-GDP ratios for the group of ODA-eligible SIDS in comparison to regional averages.

Tax-to-GDP ratios in ODA-eligible Pacific SIDS were the most volatile among SIDS and in comparison with other regional groups, a finding consistent with recent studies (Cabezón, 2016^[36]; Cabezón, Tumbarello and Wu, 2015^[37]; IMF, 2013^[24]; Tumbarello, Cabezón and Wu, 2013^[28]). Between 2008 and 2018, ODA-eligible SIDS Pacific average tax-to-GDP ratio varied more strongly than other ODA-eligible SIDS, ranging from 20.4% to 23.3%, with an average of 21.9%; whereas the average tax-to-GDP ratio for the group of ODA-eligible LAC SIDS ranged from 23.8% to 26.7%, with an average of 24.8%. The average coefficient of variation of tax-to-GDP ratios for ODA-eligible Pacific SIDS (14.46%) was higher than for ODA-eligible LAC SIDS (4.78%). It was also higher than for African countries (10.96%) and LAC countries (6.03%).

Figure 11. Comparison of SIDS and regional averages tax-to-GDP ratios, 2000-2018



Note: SIDS average, SIDS Pacific average and SIDS LAC average are unweighted averages for ODA-eligible SIDS in *Revenue Statistics*. Nauru is excluded from this figure and SIDS average as it only has data between 2014 and 2018.

Source: Calculations based on OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.



Data for ODA-eligible LAC SIDS indicate that the impact of the global financial crisis in tax-to-GDP ratios mirrored the impact seen more broadly in the LAC region: the average tax-to-GDP ratio for the group of ODA-eligible LAC SIDS declined to 24.4% in 2009 from 24.8% in 2008, while at the same time the LAC average tax-to-GDP ratio fell to 20.9% in 2009 from 21.7% in 2008. For OECD countries, the average tax-to-GDP ratio first fell from 33.2% in 2007 to 32.6% in 2008 and then to 31.8% in 2009. This is consistent with the observation that LAC SIDS – which are almost all high-income and upper middle-income countries²⁹ – were the most affected by the crisis, reflecting their greater integration in the global economy (through financial services, tourism, remittances and exports) (OECD, 2018^[12]).³⁰ The average tax-to-GDP for the group of ODA-eligible LAC SIDS ratio only returned to pre-crisis levels in 2016, a longer length of time than for LAC and OECD averages, which returned to pre-crisis levels in 2011 and 2014, respectively. This may be linked to the fact that for LAC SIDS, GDP growth rates remained lower than before the crisis (OECD, 2018^[12]).

Over the period, volatility of tax-to-GDP ratios was also higher on average in SIDS with lower income levels. Upper-middle income SIDS had an average tax-to-GDP ratio of 23.8% in the period, with an average coefficient of variation of 8.90% and an average standard deviation of 2.09. Lower-middle income SIDS presented higher volatility, with an average tax-to-GDP ratio of 19.9%, average coefficient of variation of 10.35% and average standard deviation of 2.07.

Looking at individual ODA-eligible SIDS in *Revenue Statistics* confirms that tax-to-GDP ratios varied more strongly among those in the Pacific as well as those with a high share of commodities in their exports, which is consistent with the recent literature (Cabezón, 2016^[36]; Cabezón, Tumbarello and Wu, 2015^[37]; IMF, 2013^[24]; Tumbarello, Cabezón and Wu, 2013^[28]; World Bank, 2016^[38]). Coefficients of variation of tax-to-GDP ratios were higher among ODA-eligible Pacific SIDS (all except Vanuatu) and in four ODA-eligible SIDS with a high share of commodities in their exports (Nauru, Papua New Guinea, Samoa and the Solomon Islands). ODA-eligible SIDS with the highest coefficients of variation of tax-to-GDP ratios were Nauru, Papua New Guinea and the Solomon Islands (from highest to lowest) (Table 2).

Table 2. Variation of SIDS and regional tax-to-GDP ratios, 2008-18

Ordered from larger to smaller coefficient of variation

	Coefficient of variation	Standard deviation	Minimum tax-to-GDP ratio (year)	Maximum tax-to-GDP ratio (year)	Average tax-to-GDP ratio
Nauru	42.81%	9.54	8.4 (2014)	35.4 (2018)	22.3
Papua New Guinea	16.73%	2.73	11.9 (2017)	20.0 (2011)	16.3
Solomon Islands	11.69%	3.20	21.5 (2009)	30.4 (2018)	27.4
Samoa	9.69%	2.19	18.8 (2008)	25.8 (2018)	22.6
Cook Islands	7.72%	2.03	22.1 (2014)	29.8 (2018)	26.3
Cabo Verde	7.09%	1.35	16.9 (2014)	21.2 (2008)	19.0
Fiji	6.68%	1.47	19.9 (2009)	24.2 (2017)	22.1
Belize	6.25%	1.65	24.0 (2008)	29.7 (2018)	26.5
Vanuatu	5.88%	1.00	15.3 (2016)	19.2 (2008)	17.0
Guyana	5.80%	1.39	22.5 (2012)	27.4 (2018)	24.0
Cuba	5.25%	2.07	36.5 (2013)	42.4 (2018)	39.4
Jamaica	4.27%	1.09	24.5 (2011)	27.8 (2018)	25.5
Dominican Republic	3.97%	0.52	12.3 (2010)	14.2 (2008)	13.1
Saint Lucia	3.15%	0.63	19.3 (2010)	21.3 (2008)	20.1
Mauritius	2.28%	0.44	18.7 (2008)	20.4 (2018)	19.4
<i>SIDS averages</i>					
All ODA-eligible SIDS	9.28%	2.09	21.9 (2010)	24.4 (2018)	22.8
ODA-eligible LAC SIDS	4.78%	1.23	23.8 (2011)	26.7 (2018)	24.8
ODA-eligible Pacific SIDS	14.46%	3.16	20.4 (2009)	23.3 (2018)	21.9



Upper-middle income SIDS	8.90%	2.09	22.0 (2014)	26.8 (2018)	23.8
Lower-middle income SIDS	10.35%	2.07	18.4 (2009)	21.2 (2011)	19.9
<i>Other regional averages</i>					
Africa (30) average	10.96%	1.48	15.1 (2010)	16.5 (2018)	16.1
LAC average	6.03%	1.25	20.9 (2009)	23.1 (2018)	22.0
OECD average	4.14%	1.29	32.2 (2009)	34.4 (2016)	33.3

Note: Data for Nauru cover the years 2014 to 2018. For regional and income level groups, the coefficients of variation and standard deviations are calculated as averages of the individual country coefficients of variation and standard deviations of tax-to-GDP ratios.

Source: Calculations based on OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

The coefficient of variation can hide trends in the data series and should be interpreted in light of the overall evolution of tax-to-GDP ratios over the period (Figure 12). Among the three ODA-eligible SIDS with the highest coefficients of variation, Nauru and the Solomon Islands had an overall increase in tax-to-GDP ratios over the period and Papua New Guinea had an overall decrease:

- Nauru's tax-to-GDP ratio increased four-fold between 2014 and 2018 thanks to wide-ranging tax policy and administration reforms (e.g. introduction of employment, business and service taxes and increase of their rates over time; establishment of a revenue office; improvement in customs and tax administration) (Murray, Oliver and Wyatt, 2014^[22]; OECD, 2020^[10]).
- In Papua New Guinea the decline in prices of non-renewable commodities has negatively impacted businesses and overall economic activity, and consequently the levels and volatility of tax revenues, particularly from income taxes and VAT (OECD, 2020^[10]; 2019^[29]; 2018^[30]; UNCTAD, 2019^[39]).
- The Solomon Islands has experienced important increases of tax-to-GDP ratios due to robust economic growth, increased exports of timber and log (the country's main economic sector), and tax policy and administration reforms (Greenidge, McIntyre and Yun, 2016^[21]; Murray, Oliver and Wyatt, 2014^[22]; OECD, 2020^[10]; OECD, 2019^[29]; UNCTAD, 2019^[39]).

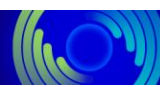
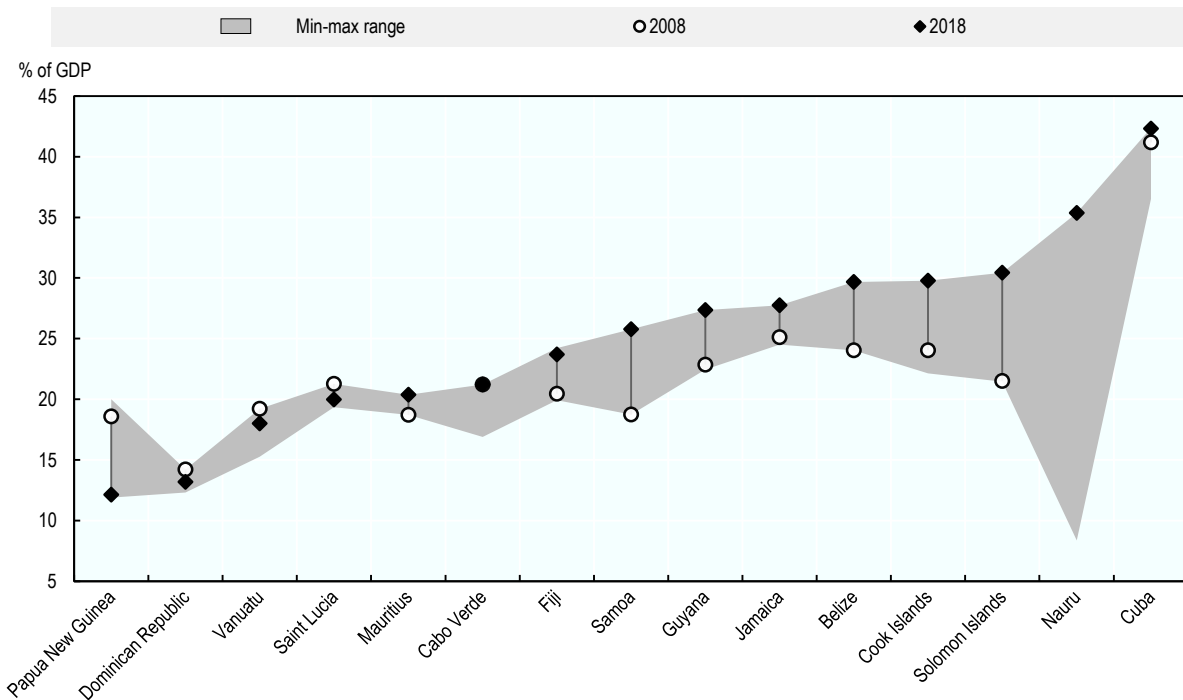


Figure 12. Minimum and maximum tax-to-GDP ratios in SIDS, 2008-18



Note: Nauru's data refer to 2014 to 2018. SIDS are ordered from the highest to the lowest median tax-to-GDP ratio between 2008 and 2018. Source: Calculations based on OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.

Potential impact of COVID-19 on volatility of tax revenues in SIDS

Among different sources of vulnerability, recent studies have identified key factors contributing to tax revenue volatility in SIDS over the past decades include changes in GDP, commodity prices, tourism flows and natural disasters (Cabezon, 2016^[36]; Cabezon, Tumbarello and Wu, 2015^[37]; IMF, 2013^[24]; Tumbarello, Cabezon and Wu, 2013^[28]). Changes in GDP affect the economic base on which tax revenues are levied and normally have an impact on the tax revenues – this impact can be measured by the tax buoyancy indicator, which measures the percentage change in total tax revenue that result from one percent change in GDP (IMF, 2020^[40]). Commodity prices and tourism flows volatility negatively impact revenues of small, undiversified SIDS economies that depend on them; natural disasters affect tax revenues by both reducing GDP and damaging the tax payment and collection infrastructure. Many of the ODA-eligible SIDS in *Revenue Statistics* are exposed to several of these factors: in most of them, international tourism receipts represent over 30% of exports and commodities represent over 50% of merchandise exports (Table 3). Seven of them are among the countries with the highest average annual disaster losses (Belize, the Cook Islands, Fiji, Guyana, Saint Lucia, the Solomon Islands, Vanuatu) (World Bank, 2012^[16]).

The COVID-19 crisis has the potential to exacerbate tax revenue volatility in many SIDS in the years to come. It is deeply affecting economic growth, international tourism and commodity prices, which will influence revenue volatility in SIDS. SIDS tax revenues may experience even greater volatility than other countries of similar income level as their GDP is expected to contract by 6.9% on average, compared to 4.8% in all other developing countries (OECD, 2021^[11]). Many SIDS have economies dependent on tourism, with international tourism receipts accounting for more than 50% of exports in ODA-eligible SIDS



in *Revenue Statistics* (Table 3). Several of them are also dependent on fossil fuels exports, such as Papua New Guinea.

Table 3. Key statistics for ODA-eligible SIDS in *Revenue Statistics*, 2018

	Tax-to-GDP ratio	GNI per capita (Current USD)	GDP (PPP, current USD million)	Income Level	Population	International tourism receipts (% exports)	Commodities (% merchandise exports)	Liner Shipping Connectivity Index (0-100)
Belize	29.7	4 450	2 791.47	UMIC	383 071	45.46	80	9.83
Cabo Verde	21.2	3 400	3 820.57	LMIC	543 767	54.41	68	6.16
Cook Islands	29.8	19 501	..	UMIC	18 600	2.26
Cuba	42.3	7 480	..	UMIC	11 338 138	..	64	9.53
Dominican Republic	13.2	7 760	192 667.41	UMIC	10 627 165	37.45	43	38.19
Fiji	23.7	5 860	12 487.05	UMIC	883 483	51.32	77	11.01
Guyana	27.4	4 770	7 425.38	UMIC	779 004	1.75	85	9.50
Jamaica	27.8	4 970	29 253.95	UMIC	2 934 855	53.38	92	32.84
Mauritius	20.4	12 040	28 763.16	UMIC	1 265 303	38.69	47	31.64
Nauru	35.4	12 040	149.37	UMIC	12 704	5.14	50	1.81
Papua New Guinea	12.1	2 570	37 316.12	LMIC	8 606 316	0.15	96	10.54
Saint Lucia	20.0	10 640	2 841.40	UMIC	181 889	81.27	60	7.04
Samoa	25.8	4 020	1 270.67	UMIC	196 130	62.57	48	6.96
Solomon Islands	30.4	2 020	1 580.58	LMIC	652 858	13.52	98	9.05
Vanuatu	18.0	3 110	937.67	LMIC	292 680	62.84	58	7.18

Note: All data refers to 2018 except for Cuba's GNI per capita (2016); international tourism receipts for Papua New Guinea (2017). Liner Shipping Connectivity Index refers to 2018 average of quarterly data; it indicates a country's integration level into global liner shipping networks and is a proxy for integration to international markets. Fields are marked as ("..") where data is not available. In 2018, the Cook Islands was an upper-middle income country (OECD, 2018^[7]).

Source: OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL; UN Data (n.d.^[41]), Cook Islands GNI at current prices - US dollars, <http://data.un.org/Data.aspx?q=Cook+Islands&d=SNAAMA&f=grID%3A103%3BcurrID%3AUSD%3BpcFlag%3A0%3BcrID%3A184>; World Bank (n.d.^[42]), World Bank World Development Indicators, <https://data.worldbank.org/data-catalog/world-development-indicators>; Asian Development Bank (2020^[43]), ADB Key Indicators, <https://data.adb.org/dataset/cook-islands-key-indicators>; UNCTAD (2020^[44]), Liner shipping connectivity index, quarterly, <https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=92>; UNCTAD (2019^[39]), *Commodity Dependence: A Twenty-Year Perspective*, https://unctad.org/system/files/official-document/ditcom2019d1_en.pdf.

Enhancing the level and stability of domestic revenues in small island developing states

As discussed in the previous section, while ODA-eligible SIDS have been able to enhance domestic revenue mobilisation in recent years, these gains remain vulnerable to external shocks to a higher degree than in other countries, with negative implications for SIDS' ability to invest in sustainable development. This vulnerability has once more become apparent during the COVID-19 crisis, when SIDS' domestic revenues are being severely hit, exacerbating pre-existing debt burdens, risking depressing public investment and undermining recovery responses.



To strengthen the financing for sustainable development available to SIDS, it is critical to reduce the vulnerability of domestic revenues to external shocks.

Policy makers in SIDS and the international community could consider working in partnership to explore how to reduce the vulnerability of domestic revenues to external shocks, taking into account SIDS' specific circumstances and needs. Building on previous research (OECD, 2018^[12]; 2020^[8]; 2020^[10]; OECD/AUC/ATAF, 2020^[9]; OECD et al., 2020^[11]), this section outlines some areas that could be further explored for joint action from SIDS' governments and providers of development co-operation to enhance the level and resilience of SIDS' domestic revenues.

Tax policy and tax administration reforms: building on past experiences and exploring additional revenue streams

In the first decades of the 21st century, ODA-eligible SIDS made important efforts to strengthen tax revenue mobilisation. Many SIDS reformed their tax systems, in particular by moving the focus from trade taxes to VAT, in addition to implementing tax administration reforms to increase efficiency. These yielded positive revenue outcomes helped by an overall positive international economic environment. Nominal tax revenues increased faster than GDP on average, leading to higher tax-to-GDP ratios.

In the aftermath of the COVID-19 crisis, SIDS will need to once again focus on enhancing domestic revenue mobilisation to strengthen their capacity to finance their own development. This can be done in several ways.

First, SIDS who, so far, have only adopted limited tax policy and administration reforms may consider learning from the experience of SIDS with similar characteristics who have implemented a wide-range of reforms to strengthen domestic revenue mobilisation (for example, see the discussion on past reforms and ongoing challenges in the section "Tax revenue trends in SIDS over time"). These reforms could be complemented by strengthening efforts to digitalise the delivery of tax services, which can have a positive impact on compliance rates while reducing administrative costs (OECD, 2021^[45]).

Second, SIDS could also consider revenue streams currently not explored, for instance sectors in the sustainable ocean economy (further discussed below) or environmentally-related taxes,³¹ fees and charges (including via carbon pricing). In 2018, most ODA-eligible SIDS for which data on environmentally related taxes are available in *Revenue Statistics* focused on one or two types of taxes,³² often on energy and/or transport (OECD/AUC/ATAF, 2020^[9]; OECD, 2020^[10]; OECD et al., 2020^[11]). On average, these revenues reached 1.9% of GDP in ODA-eligible SIDS, less than the average for OECD countries (2.2% of GDP), but more than the average for Africa (30) (1.1%) and LAC (1.0%). Further use of environmentally-related taxes – including on pollution and on resources – would have the advantage of both increasing domestic revenues and incentivising the more sustainable use and conservation of natural assets, by encouraging consumers to consider the environmental cost of their behaviour.

Finally, the integrity and performance of VAT regimes is crucial for domestic resource mobilisation in SIDS operating a VAT. The growth of e-commerce in SIDS, which is expected to continue accelerating, may have significant implications for VAT policy and administration. These may notably include potentially significant threats for VAT revenues where online sales by offshore sellers remain untaxed under existing VAT systems as well as distortion of competition for compliant domestic suppliers. SIDS are therefore encouraged to assess the potential need for policy action to ensure that their VAT systems are adequately equipped to address the implications of e-commerce growth. In this context, the internationally agreed standards and guidance for addressing the VAT challenges of digital trade developed by the OECD³³ may provide the appropriate basis for VAT policy reform in SIDS, as appropriate (OECD, 2021^[46]; 2019^[47];



2017^[48]). This guidance includes rules and mechanisms to collect VAT from foreign online sellers, which have already been implemented with considerable success in more than 70 economies that have implemented them, including in developing economies. It also points in particular to the considerable opportunities created by the role of e-commerce platforms in enhancing the efficiency of VAT collection and of big data for greater visibility and traceability of economic activity and for formalisation of previously informal economic activity. It therefore holds considerable “quick-win” opportunities for domestic resource mobilisation in SIDS. SIDS could further consider these opportunities in light of their national circumstances, administration capacities and policy priorities towards identifying tailored solutions that will allow them to enhance the efficiency and effectiveness of their VAT systems.

Development partners should ensure that support is available to assist SIDS in such reforms, as many ODA-eligible SIDS have been receiving very small volumes of bilateral assistance in support of domestic resource mobilisation over the past years, with several of them receiving no support in 2019, for instance.³⁴

Enhancing the management of existing ocean economy sectors and harnessing new opportunities from an expanding global ocean economy

Many ocean economy sectors, such as tourism and fisheries, already constitute the backbone of the economies of many SIDS, accounting for important shares of GDP, jobs and foreign exchange. However, the management of many of these sectors could be enhanced so as to improve the domestic revenue mobilisation associated to them. Among existing ocean-based sectors, tourism accounts for a significant share of GDP in SIDS, but the limited forward and backward linkages of this industry to the rest of the economy (e.g. with food and agriculture, consumer goods and construction) and the repatriation of profits earned by foreign investors (i.e. the so-called ‘financial leakages’) diminish its positive impact on SIDS’ domestic revenues. SIDS governments, with the support of providers of development co-operation, could foster backward and forward linkages with the rest of the economy and enhance local ownership, for instance through support to education, training and the introduction of specific local-sourcing requirements, as well as training and support to local tour operators, locally owned businesses, and local suppliers in other sectors such as agriculture, food processing, handicrafts, trade, transport, and recreation and entertainment (OECD, 2021^[1]).

In addition, new ocean-based sectors - such as marine biotechnologies, off-shore wind energy, agriculture – now being developed thanks to technological improvements, could contribute to expanding and diversifying the economies of SIDS, potentially resulting in broader taxable bases and in an overall more stable flow of domestic revenues. For SIDS, ocean resources are on average more than 2 000 times³⁵ the size of their land masses, which makes them home to vast untapped reserves of oil, minerals, marine algae and microorganisms that could have biotechnological and pharmaceutical uses, and other marine resources that could effectively be the basis for a larger set of economic activities and a more resilient economy.

SIDS’ governments and providers of development co-operation could partner up to ensure that new and traditional ocean-based economic activities use ocean resources sustainably and conserve them. Development co-operation approaches could enable SIDS to fully assess the potential costs and benefits associated to these new sectors, and to develop them sustainably as to ensure they generate high domestic returns and catalyse long-term inclusive development. This could require new development co-operation schemes as illustrated in (OECD, 2020^[8]), such as schemes designed to: i) strengthen developing countries’ expertise and access to policy evidence and science for the integrated and cross-sectoral management of ocean resources; ii) adequately assess the risks and rewards of economic opportunities, especially emerging ones, so as to effectively integrate from the outset community interests and environmental concerns in decision-making and achieve sustainable use of resources; iii) provide international cost-sharing mechanisms to conserve ocean resources and compensate SIDS for the



foregone revenues from industrial activities (such as deep seabed mining and others) with potentially high destructive environmental impacts extending well beyond SIDS' national borders, and global consequences for the ocean's ability to regulate climate, store carbon, and provide livelihoods and food (OECD, 2020^[8]).

Curbing illicit, unreported and unregulated fishing

Among ocean-based sectors, the improved management of fisheries, and in particular curbing illicit, unreported and unregulated (IUU) fishing activities, could be particularly beneficial for SIDS. Licence access fees from foreign vessels represent a significant source of domestic revenue for several SIDS. Kiribati's public revenues, for instance, depend on revenues from licence access fees from foreign vessels for up to 75% (ESCAP, 2020^[49]). At the same time, SIDS' vast Exclusive Economic Zones (EEZs) are often hard to monitor and subject to IUU fishing activities. While there are no estimates available specifically for SIDS, it is estimated globally IUU is so widespread that one in every five fish sold is stolen (FAO, 2017^[50]). This represents lost revenue equivalent to roughly USD 23 billion each year.

SIDS governments, with the support of providers of development co-operation, can work to improve the national and international enforcement of standards on origin and traceability, as well as on human and labour rights. They can also improve sea surveillance and monitoring in response to widespread piracy and illegal activity at sea, through training for coast guards and maritime authorities and support to implement vessel monitoring systems and space technologies for mapping ocean resources. The fisheries sector is also vulnerable to a wide range of tax crime, and as such, tax administrations should assess their vulnerabilities to tax crime within the fisheries sector and related service providers, and the effectiveness of existing legal powers and procedures in preventing, detecting and investigating these crimes (OECD, 2013^[51]). Tax Inspectors Without Borders (TIWB) has recently expanded to assisting countries in combatting tax crimes, and it may be an option for it to provide assistance in this area.

It is positive that providers of development co-operation are also supporting the use of innovative technologies such as blockchain to increase traceability of fish, help combat IUU fishing and curb human rights violations, including human trafficking and slavery on fishing boats. A good example is a pilot project in the Pacific islands tuna industry launched by the World Wildlife Fund in Australia, Fiji and New Zealand; ConsenSys, a technology innovator based in the United States; the technology implementer, TraSeable; and Sea Quest (Fiji) Limited, a tuna fishing and processing company. The partnership will use blockchain technology to track tuna from bait to plate. Similarly, US Agency for International Development (USAID) has partnered with the Walton Family, Packard and Moore Foundations on the Seafood Alliance for Legality and Traceability, or SALT, a global alliance that brings together industry, governments, traceability technology companies and civil society to accelerate learning and support collaboration around traceability approaches to legal and sustainable seafood.

Conclusions

The COVID-19 pandemic is exposing and amplifying the interlinked host of challenges that SIDS face to mobilise the public and private resources needed to achieve sustainable and resilient development. These include SIDS' over-reliance on one or two economic sectors, high fiscal deficits and public debt levels. Therefore, the fiscal and economic impacts of the COVID-19 crisis in SIDS need to be understood and addressed in light of this broader context of their unique structural vulnerabilities.

Unlike other developing countries, external finance flows to SIDS are dominated by remittances and ODA, while seeing negligible and volatile private finance flows. ODA may remain a fundamental source of financing for several SIDS, and there are a number of ways in which ODA can be used strategically with



a view to enhance domestic revenue mobilisation in SIDS, central to a sustainable and resilient recovery post-COVID-19.

Domestic revenues, in particular taxation, are a key source of financing for sustainable development and resilience in SIDS. Compared to external finance, tax revenues are in general a larger and more stable source of revenues; therefore, they are a critical source of resources for SIDS to invest in sustainable development. During the first decades of the 21st century, many ODA-eligible SIDS have implemented a range of tax policy and tax administration reforms that, combined with strong economic performance in many of them, successfully contributed to raising tax revenue levels and strengthened domestic revenue mobilisation, in particular in smaller ODA-eligible SIDS. As a result, the average tax-to-GDP ratio in ODA-eligible SIDS covered in OECD *Global Revenue Statistics Database* reached 25.1% in 2018, higher than the averages for Africa (30) and LAC. The increase of tax-to-GDP ratios in ODA-eligible SIDS between 2008 and 2018 was mainly driven by taxes on goods and services (including VAT). The biggest decreases were driven by income taxes, especially CIT.

While tax revenue levels across ODA-eligible SIDS varied in 2018, their composition was more similar, with taxes on goods and services (including VAT) being the most important source of tax revenues in most ODA-eligible SIDS (62.6% of total taxation on average). In contrast with Africa (30) and LAC, taxes on goods and services other than VAT (e.g. sales tax, excises, and customs and import duties) were the most significant source of these revenues. On average, they accounted for a higher share in total taxation (36.1%) than VAT (26.5%), CIT (14.5%) or PIT (13.0%). The relative lower importance on average of VAT seems to be a distinctive characteristic of ODA-eligible SIDS, with three of them not adopting VAT (Cuba, Nauru and the Solomon Islands). Even though CIT revenues represented a higher share of total taxation than PIT revenues in ODA-eligible SIDS on average, there was a marked regional and income-level difference in the composition of income tax revenues: CIT was more important in most upper-middle income SIDS as well as in ODA-eligible SIDS in LAC. Conversely, PIT was more important in all lower middle-income SIDS and in most ODA-eligible Pacific SIDS (except Fiji). This contrasts with the respective shares of PIT and CIT among the broader group of economies in the *Global Revenue Statistics Database*, where lower income countries are more likely to rely on CIT, and almost all OECD countries rely more on PIT.

Despite the progress made, tax revenues in SIDS tend to be volatile, which threatens the availability of domestic revenues during crises and compromises governments' fiscal positions. Between 2008 and 2018, tax-to-GDP ratios varied more strongly on average in ODA-eligible SIDS than the average for all other economies in *Revenue Statistics*, except in comparison to Africa (30). Within ODA-eligible SIDS, Pacific SIDS' tax-to-GDP ratios were more volatile on average than LAC SIDS' ratios average. Tax revenue volatility also varied according to income level between 2008 and 2018: on average, lower-middle income SIDS had more volatile tax-to-GDP ratios than upper-middle income SIDS. ODA-eligible SIDS with a high share of non-renewable commodities in exports have also displayed greater volatility of tax-to-GDP ratios in the period.

The susceptibility of SIDS' revenues to external shocks endangers the sustainability of gains in domestic revenue mobilisation, in particular during the current COVID-19 crisis, which is likely to be the greatest shock in recent history. Tax revenues in ODA-eligible SIDS have been volatile but on a positive trend on average between 2008 and 2018, a period marked by a generally favourable international economic environment when many ODA-eligible SIDS implemented important tax policy and administration reforms. The COVID-19 crisis is likely to negatively impact these gains, via shocks to GDP growth and in particular to international tourism and commodity prices. This shock will be most severe in SIDS' economies that are based on tourism and on commodity exports, which risks decreasing SIDS' tax revenues and making them even more volatile when their economies need these revenues the most to respond to the crisis.

There are a number of avenues that policy makers in SIDS could consider in order to reduce the vulnerability of domestic revenues to external shocks and enhance their contribution to resilient and



sustainable development. Given the large capacity and financing constraints in SIDS, the international development community has an important role to support these efforts in partnership with SIDS' governments. Policy makers could consider:

1. Introducing tax policy and tax administration reforms, learning from and building on previous experience of many SIDS' national jurisdictions, to enhance the volume and stability of tax revenues.
2. Enhancing the management of existing ocean economy sectors and harnessing new opportunities from an expanding global ocean economy
3. Supporting international and domestic efforts to curb illicit, unreported and unregulated fishing, as a way to enhance domestic resources.

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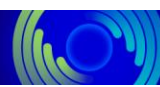
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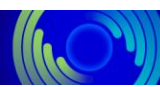
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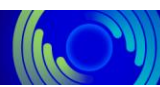
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Notes



¹ There are a number of international lists of SIDS, including: United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) (58 countries and territories), United Nations Department of Economic and Social Affairs (52 countries and territories), United Nations Conference on Trade and Development (29 countries and territories) and Alliance of Small Island States (39 member states and 4 observer states). The largest list (UN-OHRLLS) includes 38 United Nations Member States and 20 Non-Members/Associate Members of the United Nations Regional Commissions (UN, n.d.^[63]).

² In this paper, “resources” is used as general term, encompassing financial and non-financial, public and private, international and domestic resources available to countries to promote their own development.

³ Across 34 ODA-eligible SIDS: 9 are least developed countries, 5 lower middle-income countries and 20 are uppermiddle--income countries. For a list of ODA-eligible SIDS, see Box 1.

⁴ In 2018, SIDS not eligible to receive ODA are high-income SIDS (the Bahamas, Bahrain, Barbados, Singapore, Saint Kitts and Nevis, the Seychelles, and Trinidad and Tobago) as well as SIDS which are territories or constituent countries of high-income countries (American Samoa, Anguilla, Aruba, Bermuda, the British Virgin Islands, the Cayman Islands, Commonwealth of Northern Marianas, Curacao, French Polynesia, Guadeloupe, Guam, Martinique, New Caledonia, Puerto Rico, Sint Maarten, the Turks and Caicos Islands, the U.S. Virgin Islands).

⁵ This measure takes into account victims of natural disasters; instability of agricultural production; and instability of exports of goods and services.

⁶ The full list of indicators regarding the determinants of exposure to shocks is: small population size; remoteness from world markets; export concentration; share of agriculture, forestry and fisheries in GDP; and share of population living in low-elevation coastal zones.

⁷ For a discussion on losses and damages in developing countries see <https://www.oecd.org/environment/cc/losses-and-damages/>.

⁸ New Zealand response to the OECD-DAC “SIDS financing challenges and opportunities” survey questionnaire.

⁹ External finance encompasses public or official flows (i.e. non-concessional official flows and concessional official flows) as well as private flows (i.e. remittances, private flows at market terms, private grants). See Box 1 for more details.

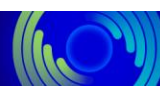
¹⁰ Private finance flows leave SIDS to provider countries due to, for instance, the selling of stocks and shares and repayments of private sector borrowing.

¹¹ For a discussion on green, social, sustainability and sustainability-linked bonds in developing countries see:

[https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD\(2021\)20&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD(2021)20&docLanguage=En).

¹² Figure 4 and Figure 5 exclude Nauru as tax revenue data for this country is only available from 2014.

¹³ Fifteen SIDS in *Revenue Statistics* were eligible to receive ODA in 2018: Belize, Cabo Verde, the Cook Islands, Cuba, the Dominican Republic, Fiji, Guyana, Jamaica, Mauritius, Nauru, Papua New Guinea, Saint Lucia, Samoa, the Solomon Islands and Vanuatu (see Box 1).



¹⁴ Grasping the full scope of domestic revenue mobilisation in SIDS requires looking at non-tax revenues alongside tax revenues. Non-tax revenues are all government revenues that do not meet the definition of a tax (compulsory, unrequited payments). They include: grants; property income (rents and royalties, interest and dividends, other property income); sales of goods and services; fines, penalties and forfeit; miscellaneous and unidentified revenues. However, comparable data on non-tax revenue are not currently available for all SIDS in *Revenue Statistics* (notably for LAC SIDS).

¹⁵ The “Africa (30) average” is the unweighted average tax-to-GDP ratio for the 30 countries in *Revenue Statistics in Africa* (OECD/AUC/ATAF, 2020^[9]).

¹⁶ The OECD data and average are taken from *Revenue Statistics 2020* (OECD, 2019^[64]). Costa Rica was not OECD Members at the time of preparation of that publication. Accordingly, Costa Rica does not appear in the list of OECD Members and is not included in the zone aggregates.

¹⁷ With 1 meaning perfect positive correlation, 0 no correlation and -1 perfect negative correlation.

¹⁸ In SIDS, the most common taxes on goods and services other than VAT are taxes on specific goods and services (excises, customs and import duties, taxes on specific services, taxes on exports, and other taxes on international trade and transactions), and taxes on use of goods, or on permission to use goods or perform activities. Cuba and the Solomon Islands also have general taxes (sales tax).

¹⁹ VAT was introduced before 2000 in: the Dominican Republic (1983), Jamaica (1991), Fiji (1992), Samoa (1994), the Cook Islands (1997), Mauritius (1998), Vanuatu (1998) and Papua New Guinea (1999).

²⁰ VAT was introduced after 2000 in: Cabo Verde (2004), Belize (2006), Guyana (2007) and Saint Lucia (2012).

²¹ This comparison excludes Nauru (where income taxes cannot be split between personal and corporate) as well as Vanuatu (which do not levy income taxes).

²² Social Security contributions data were not available for Saint Lucia.

²³ Excluding Nauru for which tax revenue data is only available between 2014 and 2018.

²⁴ The price of crude oil started increasing again in early 2021; therefore, the overall impact on revenues for oil-exporter countries is yet to be determined.

²⁵ Cabezón, Tumbarello and Wu (2015^[37]) measured volatility with standard deviation of “detrended” revenue-to-GDP- ratios, i.e. excluding time trend from the underlying ratio.

²⁶ Coefficients of variation are presented as percentage variation of the average tax-to-GDP ratio for the period from 2008 to 2018, where 0% means no variation from the average tax-to-GDP ratio (i.e. constant values), 50% means a variation of half the average tax-to-GDP ratio, and 100% means a variation equal to the average tax-to-GDP ratio.

²⁷ The standard deviation would instead show the variation in each country in percentage points of GDP, which would provide a better indication of the scale of the resource fluctuations in each country as a percentage of the overall economy. However, for brevity, this paper focuses on the coefficient of variation, which more closely relates to the overall budgeting impact of these variations.



²⁸ For tax-to-GDP ratios of regional and income level groups discussed in this section, the coefficients of variation and standard deviations are calculated as averages of the individual countries' coefficients of variation and standard deviations of tax-to-GDP ratios.

²⁹ The only exception is Haiti.

³⁰ *Revenue Statistics* data for years before 2008 are not available for most African and Pacific SIDS.

³¹ According to OECD (2005^[52]) "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".

³² Data on environmentally related tax revenue in *Revenue Statistics* can be grouped in four tax-base categories: energy (including all CO₂ 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) (OECD, 2020^[10]).

³³ This guidance includes the Mechanisms for the Effective Collection of VAT/GST – OECD (<https://www.oecd.org/tax/consumption/mechanisms-for-the-effective-collection-of-vat-gst.htm>); The role of the digital platforms in the collection of VAT/GST on online sales (OECD, 2019^[47]); The Impact of the Growth of the Sharing and Gig Economy on VAT/GST Policy and Administration (OECD, 2021^[46]).

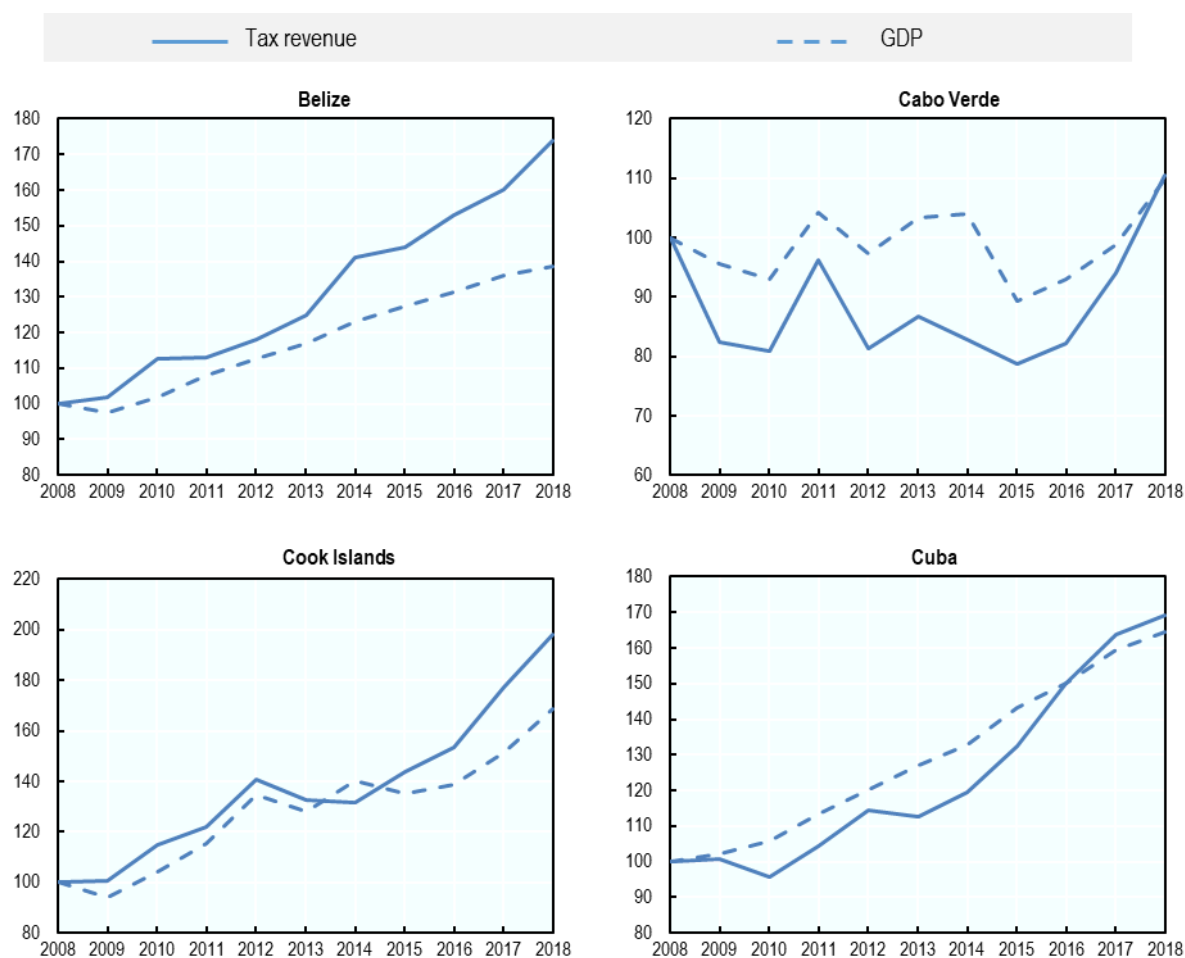
³⁴ Comoros, Mauritius, and Sao Tome and Principe.

³⁵ This figure refers to the average ratio of EEZ to land mass in the 34 ODA-eligible SIDS. This ratio is highest for Tuvalu (EEZ exceeds its land mass by 28 838 times), followed by Nauru (EEZ exceeds its land mass by 14 689 times).



Annex 1.A. Variation of Tax Revenues and GDP in selected ODA-eligible SIDS

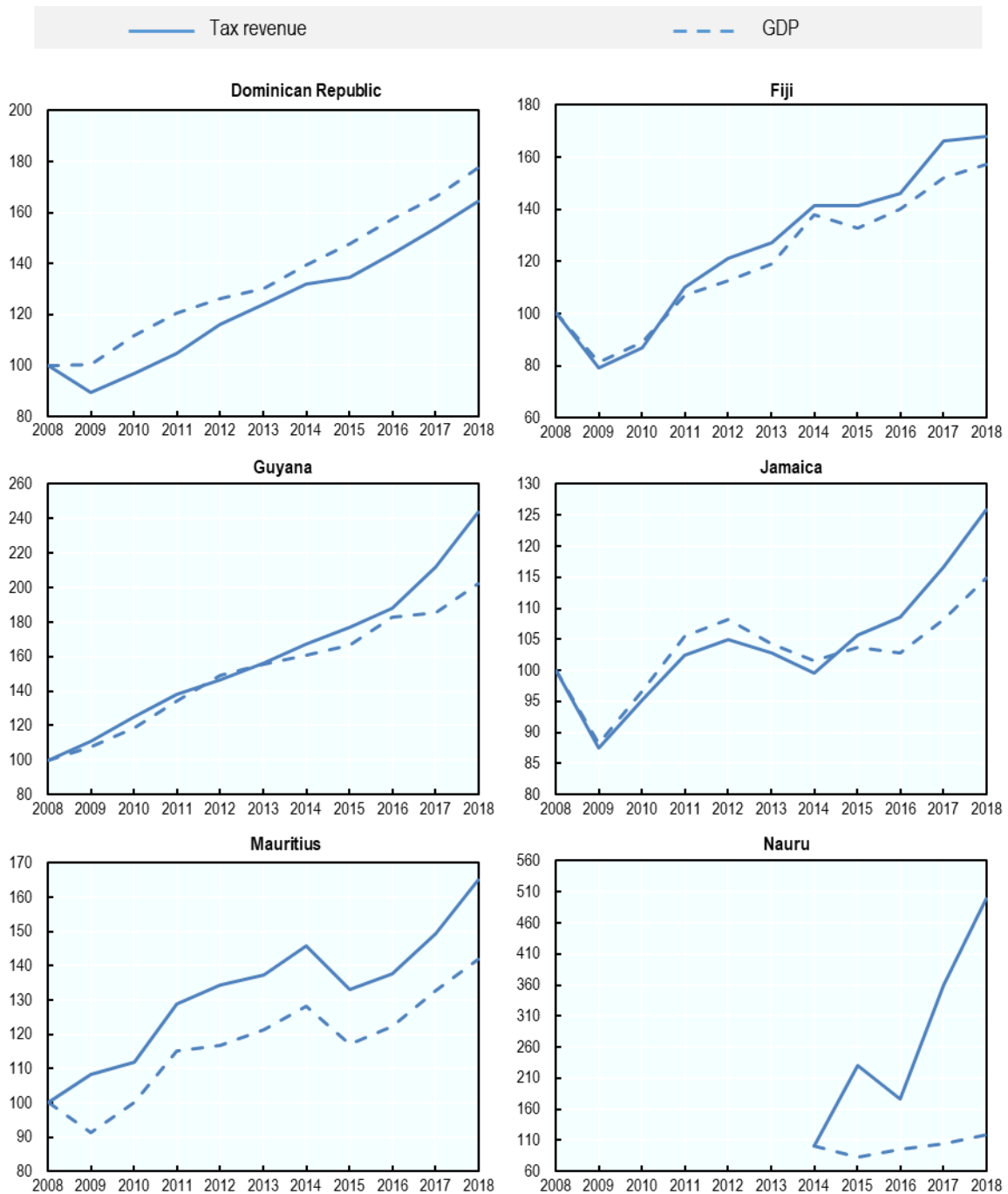
Annex Figure 1.A.1. Variation of Tax Revenues and GDP in Belize, Cabo Verde, Cook Islands and Cuba, 2008-18 (2008 = 100)



Source: OECD (2020^[8]) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.



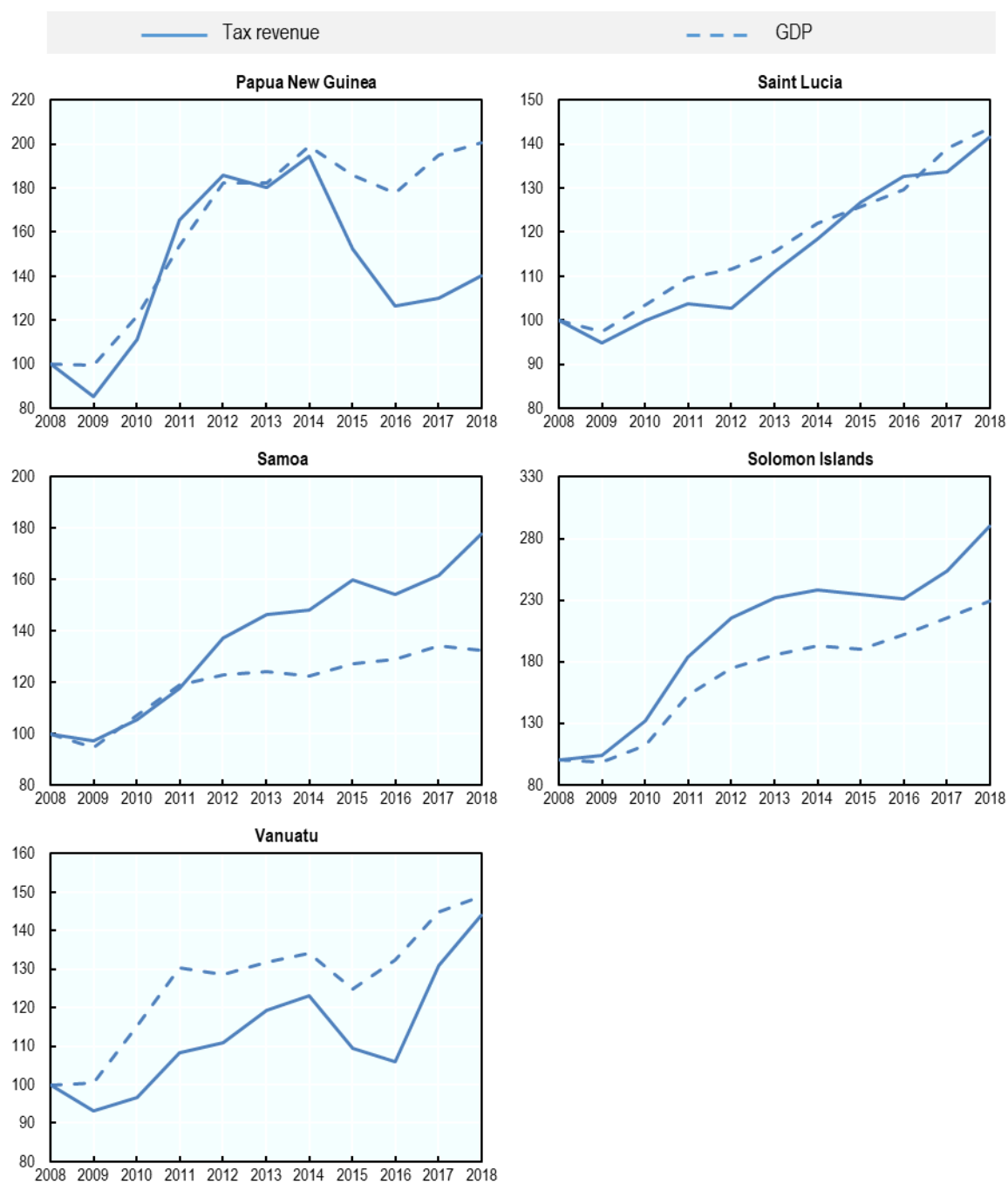
Annex Figure 1.A.2. Variation of Tax Revenues and GDP in Dominican Republic, Fiji, Guyana, Jamaica, Mauritius and Nauru, 2008-18 (2008 = 100)



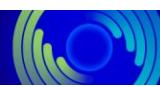
Source: OECD (2020⁽⁸⁾) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL



Annex Figure 1.A.3. Variation of Tax Revenues and GDP in Papua New Guinea, Saint Lucia, Samoa, Solomon Islands and Vanuatu, 2008-18 (2008 = 100)



Source: OECD (2020⁽⁸⁾) *Global Revenue Statistics Database*, https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL.



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