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Strengthening Government Finances to Enhance Human Capital in the Pacific

A Public Expenditure Review for Nine Pacific Island Countries

Kiribati, Nauru, Republic of the Marshall Islands, Federated States of Micronesia, Palau, Samoa, Tonga, Tuvalu, and Vanuatu

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Contents

Abbreviations and Acronyms

ACSCs	ambulatory care sensitive conditions
ACSH	Ambulatory-Care Sensitive Hospitalizations
ADB	Asian Development Bank
ALMP	active labor market policies
AML	Anti-Money Laundering
ASP	adaptive social protection
BAU	business-as-usual
BEPS	basex erosion and profit shifting
CARES	Coronavirus Aid, Relief, and Economic Security
CBRs	correspondent banking relationships
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
CFT	Combating the Financing of Terrorism
CGD	Center for Global Development
CHE	current health expenditure
CICs	Caribbean Island countries
CIF	Consolidated Investment Fund
CIT	corporate income tax
CLRW	Come Let's Read and Write (Tonga)
CoA	chart of account
COFA	Compact of Free Association
COVAX	COVID-19 Vaccines Global Access
CPIA	Country Policy and Institutional Assessment
CTF	Compact Trust Fund
DB	Defined-Benefit
DC	Defined-Contribution
DP	development partner
DSA	Debt Sustainability Analysis
DSSI	Debt Service Suspension Initiative

EAP	East Asia & Pacific
ECE	Early Childhood Education
ECP	Economic Citizenship Program
EEZs	Exclusive Economic Zones
EFDs	electronic fiscal devices
ES	Executive Summary
FSM	Federated States of Micronesia
FSMA	Federated States of Micronesia Arrangement
FSMTF	FSM Trust Fund
GBV	gender-based violence
GDP	gross domestic product
GEH	government expenditure on health
GFS	Government Finance Statistics
GNI	Gross National Income
Gov	Government
GPF	Global Proficiency Framework
GRT	gross revenue tax
GST	goods and services tax
HCI	Human Capital Index
HIS	health information systems
HR	human resources
HTS	Harmonized Test Scores
IDA	International Development Association
LAYS	learning-adjusted years of schooling
LIC-DSA	Low-Income Country Debt Sustainability Analysis
LLFs	lower-level facilities
LMIC	lower-middle income countries
LSU	Labour Sending Unit
LTOs	large taxpayer offices
MAC	Market-Access Country
MICs	middle-income countries
MICS	Multiple Indicator Cluster Surveys
MOF	Ministries of Finance

MOH	Ministries of Health
MTEF	Medium-term expenditure frameworks
MTRS	Medium-term revenue strategies
NCD	non-communicable disease
NHSP	National Health Strategic Plans
NMS	National Medical Stores
NPH	Northern Provincial Hospital
NPRT	Nauru Phosphate Royalties Trust
NTF	Nauru Trust Fund
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
OMR	overseas medical referrals
OOP	out of pocket
PACER Plus	Pacific Agreement on Closer Economic Relations
PAE	Partly Allowable Effort
PEH	public expenditure on health
PEHS	Packages of Essential Health Services
PER	Public Expenditure Review
PFM	public financial management
PGST	Palau Goods and Services Tax
PIC	Pacific Island Countries
PIC-6	Federated States of Micronesia, Kiribati, Nauru, Palau, Republic of the Marshall Islands, and Tuvalu
PIC-9	Federated States of Micronesia, Kiribati, Nauru, Palau, Republic of the Marshall Islands, Samoa, Tonga, Tuvalu, and Vanuatu
PILNA	Pacific Islands Numeracy and Literacy Assessment
PIT	personal income tax
PNA	Parties to the Nauru Agreement
PNG	Papua New Guinea
PPP	purchasing power parity
PPS	Pharmaceutical Procurement Services
RDP	Role Delineation Policies
RERF	Revenue Equalization and Reserve Fund
RMI	Republic of the Marshall Islands

RPC	Regional Processing Center
SA	social assistance
SCI	Service Coverage Index
SCM	supply chain management
SDs	standard deviations
SDFP	Sustainable Development Financing Policy
SDG	Sustainable Development Goal
SEA	South-East Asia
SHI	social health insurance
SIDS	small island developing states
SOE	state owned enterprises
SP	social protection
SRH	sexual and reproductive health
SSB	sugar-sweetened beverages
SWF	sovereign wealth funds
TAE	Total Allowable Effort
TB	tuberculosis
THE	Total health expenditure
TNER	Total Net Enrolment Rate
TTF	Tuvalu Trust Fund
TVET	Technical and Vocational Education and Training
UHC	Universal Health Coverage
UIS	UNESCO Institute for Statistics
UMIC	upper-middle income countries
UNFPA	United Nations Population Fund
VAT	value-added tax
VDS	Vessel Day Scheme
VSMT	Visiting Specialist Medical Teams
WCPO	Western and Central Pacific Ocean
WDI	World Development Indicators
WEO	World Economic Outlook

Executive Summary

The objective of this Public Expenditure Review (PER) is to improve the efficiency of public spending in the health, education, and social sectors, and to increase domestic revenues across nine Pacific Island Countries (the PIC-9: Kiribati, Nauru, Republic of the Marshall Islands (RMI), Federated States of Micronesia (FSM), Palau, Samoa, Tonga, Tuvalu, and Vanuatu). World Bank PERs generally evaluate the effectiveness, efficiency, and equity of public spending as well as fiscal sustainability. The PIC-9 PER, however, focuses on how to: (i) improve the allocative, and to some extent, technical efficiency of public spending within the sectors of analysis;[1] and (ii) increase domestic revenues. Combined, the measures identified could deliver a fiscal impact of 3–43 percent of GDP for each of the PIC-9, while also supporting improved human capital outcomes and enhanced fiscal sustainability. Executive Summary (ES) Tables 1–9 summarize the measures identified and their estimated fiscal impact, where feasible, for each of the PIC-9.

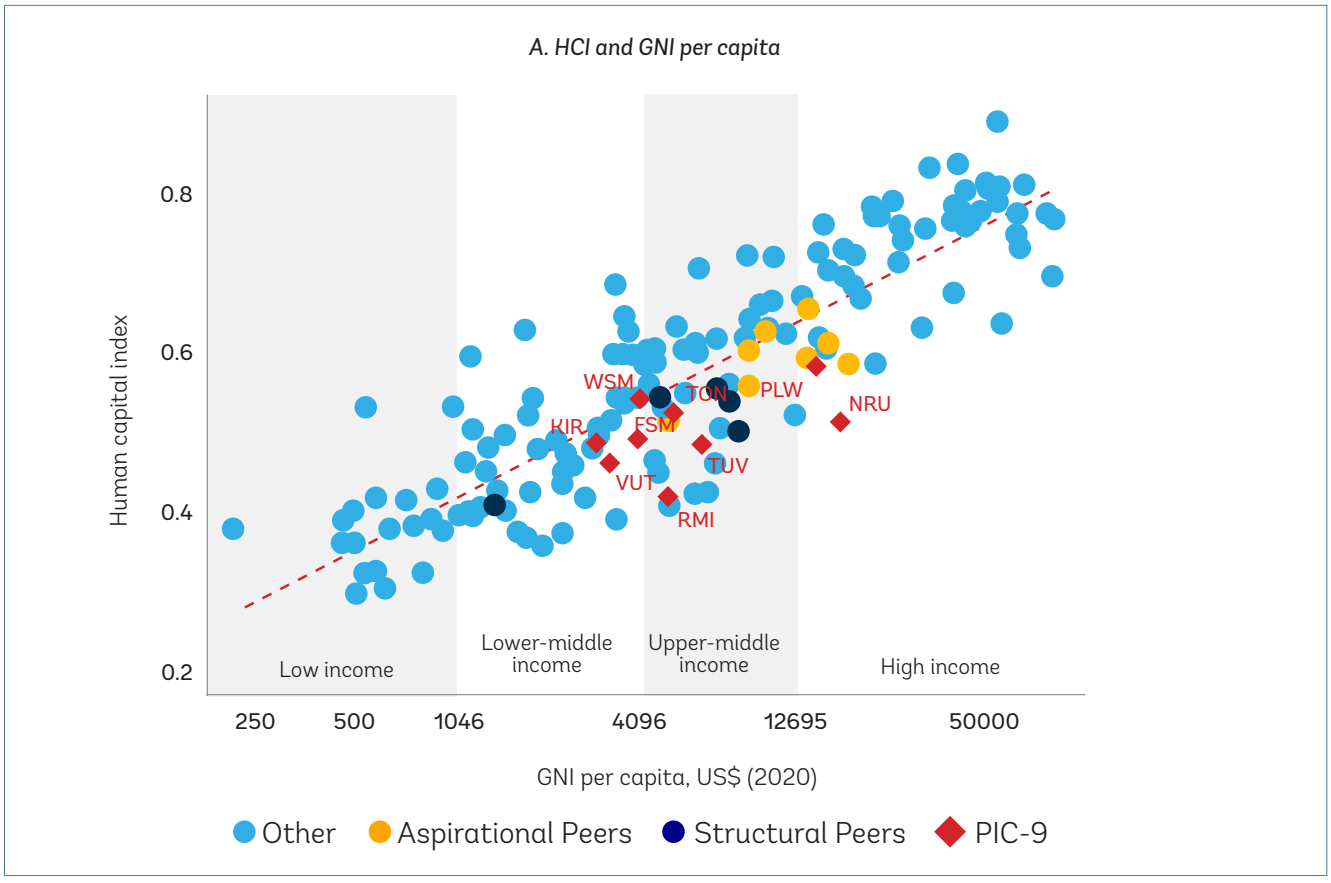
The COVID-19 shock, combined with overlapping shocks from natural disasters and global inflation, risks reversing a decade of progress in building human capital across the Pacific. Remoteness helped the PIC-9 avoid a COVID-19 health crisis, but the prevention strategies employed by governments have had severe economic consequences. Strict international border restrictions, in some cases compounded by natural disasters, have led to substantial negative effects on economic output, employment, and government finances. Households have shouldered a heavy burden from the shock, with surveys showing that many withdrew children from school, avoided non-urgent health care, and reduced food consumption—all of which could have long-term consequences for human capital. Vulnerable households are most likely to be forced to make such decisions, exacerbating existing income inequalities. The pandemic has also widened existing gender inequalities, including in the labor market and access to health services, and has been associated with a rise in physical and sexual violence. Combined, these effects risk reversing hard-won gains in human capital across the PIC-9, which could have permanent scarring effects on productivity and prosperity.

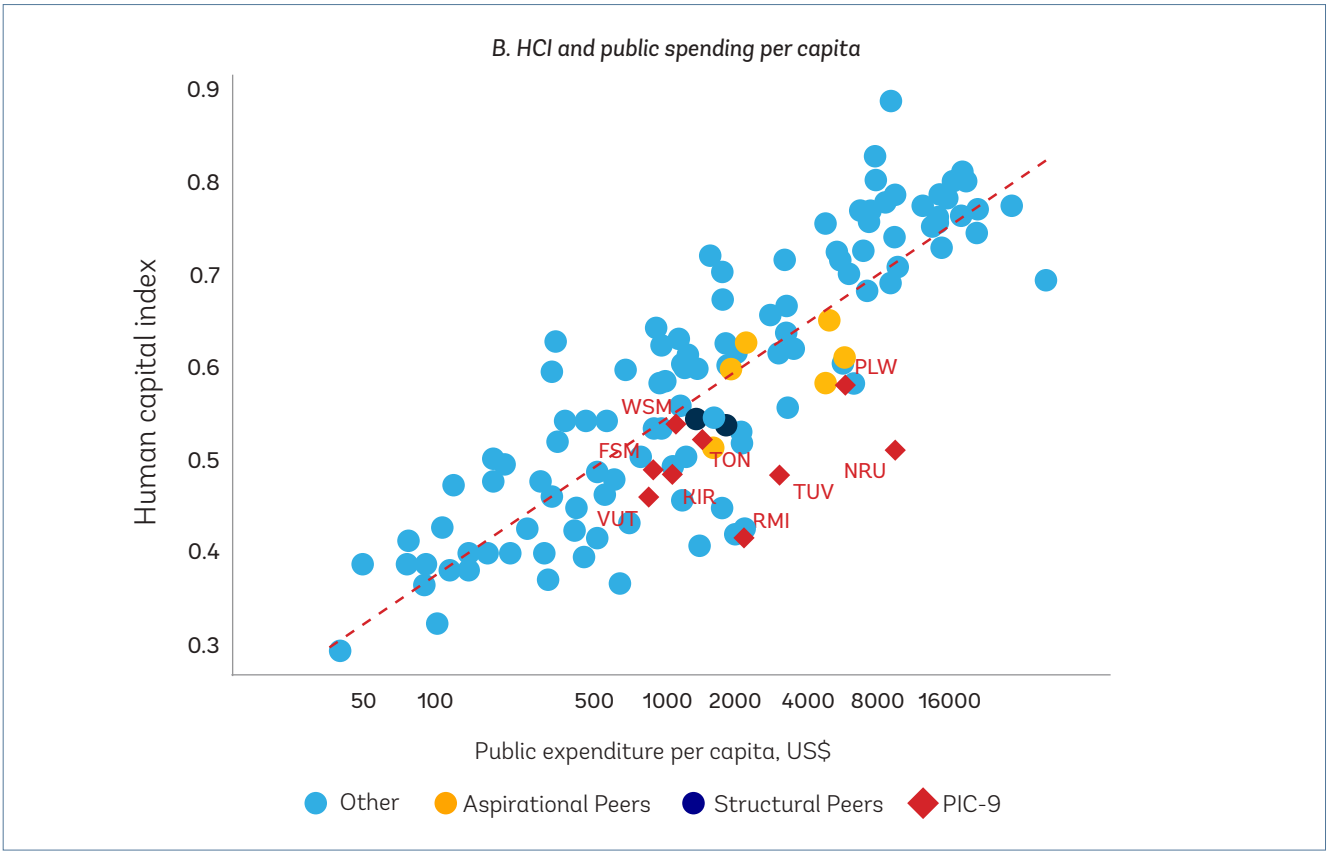
Public finance has a critical role to play in building human capital as a central element in a green, resilient, and inclusive recovery. Human capital is a crucial driver of economic growth and development, poverty reduction, and improved wellbeing. Limited human capital is a key constraint to inclusive growth in the PIC-9 (World Bank, 2023). Yet, human development in the PIC-9 (proxied by the Human Capital Index, HCI) was low prior to the pandemic, relative to their level of income and public spending (Figure ES1). As the PIC-9 emerge from the pandemic and overlapping shocks, governments will need to turn their attention to building back fiscal buffers, supporting growth, and addressing key development goals. The pandemic and associated border closures have highlighted that to improve livelihoods and support a diversification in the drivers of economic growth, the PIC-9 must invest in their greatest resource: their people.

1. 'Allocative efficiency' refers to reallocations of public spending between spending areas with a view to improving the quality of spending. 'Technical efficiency' refers to maintaining the same level/quality of outputs with reduced inputs or increasing the level/quality of outputs with the same level of inputs.

An education crisis, the non-communicable diseases (NCDs) epidemic, and high vulnerability to climate change and natural disasters impose substantial costs on the PIC-9 that require urgent action. The HCI shows that the average child born in the PIC-9 today will be only half as productive when they grow up as would have been the case if they had optimal health and education. Across the region (except Palau), too many 10-year-olds are not acquiring minimum proficiency in literacy and numeracy. This education crisis is compounded by poor health outcomes that predate COVID-19. Largely due to NCDs, Pacific Islanders lose over 37 years of life from premature morbidity and mortality for every 100 citizens, 16 percent more than in peer countries. Without intervention to address the NCDs epidemic, the economic burden is projected to increase by 5–9 percent of GDP by 2040 (World Bank, 2017). Implementation of the Pacific Agreement on Closer Economic Relations (PACER Plus)—a regional free trade agreement—could result in losses of 2–14 percent of revenues, curbing the region's capacity to finance key development spending. Finally, the Pacific is one of the world's most disaster-prone regions, and among the most exposed to sea-level rise. Left unaddressed, these challenges risk making the economies weaker, societies more unequal, and families poorer and more vulnerable.

Figure ES1: Human capital in the PIC-9 is lower than would be expected for the region's level of development and public spending





Note: Values are FY15-FY20 averages.
Source: World Bank World Development Indicators (WDI) and country national budgets.

The recommendations from this PER provide a set of opportunities to address these challenges and achieve the region's development goals. As the region emerges from the overlapping shocks and looks towards the future, these challenges underscore the importance of not reverting to 'business as usual'. Achieving the region's development goals and enhancing resilience to climate change will require not just improvements in physical infrastructure, but also a transformation in the quality of human capital. Financing, though crucial, will not be enough. Achieving shared prosperity will require more efficient health, education, and social protection systems, combined with prudent fiscal management.

The PIC-9 PER differs from a traditional World Bank PER due to its objective and scope. In summary, these differences include: (i) the coverage of nine countries; (ii) a strong emphasis on the objectives of spending efficiency and fiscal sustainability (but a more limited discussion of equity issues); and (iii) the very challenging data environment in the Pacific. For example, many of the PIC-9 do not regularly publish fiscal data consistent with the Government Finance Statistics (GFS) standardized framework. To address this constraint, this PER supported the preparation of a BOOST dataset for six of the PIC-9 countries—Kiribati, RMI, Palau, Samoa, Tonga, and Tuvalu (all nine countries were approached). This was possible owing to the respective governments providing detailed revenue and expenditure data. The BOOST program is a World Bank-sponsored

open budget portal that provides highly disaggregated budget data in a standardized format, facilitating analysis over time and across countries.[2] The six BOOSTs will be published to improve the Pacific data environment and facilitate future analysis by interested parties. In addition, FSM, Palau, Samoa, and Tuvalu completed a more detailed revenue questionnaire that provided additional data. Working with PIC-9 governments, the World Bank will seek to expand and periodically update these datasets.

Due to the challenging data environment, this PER follows a two-tiered analytical approach. The first tier takes stock of the evolving trends of domestic revenues and social sector spending in recent years across the PIC-9. The second tier undertakes deeper analysis to identify specific measures to increase domestic revenue and improve spending efficiency based on the BOOST and additional revenue datasets, household income and expenditure surveys, and complementary global and country-level data. Consequently, the depth and breadth of analysis across the nine countries is heterogenous.

The PER is designed to inform PIC-9 government priorities, promote closer coordination within governments, and encourage greater participation by citizens in policy issues. The PER is designed to inform government budget decisions and future World Bank operational priorities by providing evidence on how to improve the quality of social sector spending while rebuilding fiscal buffers. The analysis and measures identified can also encourage further dialogue between ministries of finance and ministries of health, education, and social protection about sector priorities, allocations, spending efficiency, and how results are measured. Finally, by providing an independent assessment of fiscal policy, the report can catalyze deeper engagement by citizens regarding national priorities and government policy.

In this report, the PIC-9's public spending dynamics and performance are compared with other relevant countries using an international benchmarking exercise. This study applies the World Bank's Country Economic Memorandum 2.0 framework to select two sets of countries for comparison with the PIC-9. The first is a set of structural peer countries with broadly similar economic structure to the PIC-9, and similar performance on a target indicator. The second is a set of aspirational peer countries that also have similar characteristics but have outperformed the PIC-9 on the target indicator. Benchmarking was done based on the following characteristics: (i) population; (ii) GDP per capita (current $US); and (iii) government effectiveness (from the Worldwide Governance Indicators). This provides a list of comparator countries from the Caribbean Island countries (CICs) and other small island developing states (SIDS). Structural and aspirational peers were defined based on 2020 HCI scores relative to Samoa (the top ranked PIC-9). This provides the following groupings, which are used throughout the report:

a. **Aspirational peer countries:** Fiji, Antigua & Barbuda, Grenada, St. Kitts & Nevis, St. Lucia, Trinidad & Tobago, Mauritius, Seychelles.
b. **Structural peer countries:** The remaining CICs (the Bahamas, Barbados, Belize, Dominica, Guyana, Jamaica, St. Vincent & the Grenadines, Suriname) plus selected SIDS (Comoros, Guinea-Bissau, Sao Tome and Principe, Timor-Leste, Cabo Verde, Solomon Islands).

2. For further information and access to the datasets, see https://www.worldbank.org/en/programs/boost-portal

The macro-fiscal context and the case for fiscal consolidation

The PIC-9 share several structural characteristics, but also have important differences that lead to heterogeneous opportunities and challenges to achieve fiscal sustainability and spending efficiency. The PIC-9 are among the world's smallest and most isolated nations. Their unique economic geography, including extreme remoteness, small size, geographic dispersion, and vulnerability to shocks, makes achieving inclusive economic growth and fiscal sustainability particularly challenging. These characteristics lead to higher public expenditure to deliver a given level of coverage and quality of public goods and services, due to high fixed costs and a lack of economies of scale. Their small populations and domestic labor markets also mean that the PIC-9 face serious capacity constraints, further impeding the functioning of the public sector. The Pacific is also one of the most aid dependent regions in the world, with all the PIC-9 among the top 13 countries in terms of net aid flows per capita. Yet, even within the group, aid dependency varies from 15 percent of total revenue in Samoa and Nauru, to 40–50 percent in FSM, RMI, and Tonga. In recent years, sovereign rents have emerged as a key source of fiscal revenue in six of the PIC-9, mainly from selling fishing access rights in their Exclusive Economic Zones (EEZs), but also from other novel sources. These windfall rents have presented new opportunities and challenges for fiscal management. Variations in their dependence on tourism as a key source of economic activity, jobs, and tax revenues has also meant that the COVID-19 shock has had heterogenous impacts across the region. Finally, the level of development (proxied by Gross National Income (GNI) per capita) also varies widely, from US$2,960 in Kiribati to US$15,590 in Nauru. Despite these differences, medium-term fiscal sustainability remains a key enabler to green, resilient, and inclusive development across the region.

Following a period of relatively robust economic performance, COVID-19-related border closures and natural disasters led to deep and protracted recessions across most of the PIC-9 in FY20-21. Prior to the pandemic, the PIC-9 economic performance had been relatively strong, with higher growth and improved fiscal positions compared to historical trends. However, the pandemic represented a large negative shock to the region's economies. Over two years of strict travel restrictions slashed tourism exports, disrupted temporary worker programs and goods exports, and increased the cost of imports. Domestic lockdowns led to business closures and curtailed construction activity. In Tonga and Vanuatu, these impacts were compounded by natural disasters, which caused significant damage to housing, infrastructure, and crops. In 2022, domestic outbreaks of COVID-19 in several countries and higher global commodity prices due to the Russian invasion of Ukraine further buffeted the PIC-9 economies. Consequently, output across most of the region is not expected to recover to pre-pandemic levels until 2023 at the earliest.

Governments responded with substantial stimulus, resulting in fiscal deficits. The economic downturn led to large shortfalls in domestic revenues, combined with additional spending to support health-sector preparedness, vaccine rollout, and to mitigate the economic impacts on households and businesses. Averaging 15 percent of GDP, the COVID-19 fiscal response packages implemented by the PIC-9 were among the highest in the world. In Tonga and Vanuatu, authorities also had to create fiscal space for disaster response and recovery. This resulted in

an expansion in PIC-9 fiscal deficits (before accounting for grants) to an average of 19 percent of GDP in FY20-FY21, compared to 13 percent in FY13-FY19. After accounting for grants, five of the PIC-9 registered fiscal deficits in FY21, while the other four registered lower surpluses than in previous years. The stimulus packages were financed by unprecedented levels of development partner grants (and/or highly concessional loans in the case of Vanuatu and Palau), spending reprioritization, the drawing down of contingent financing, emergency funds and cash reserves, new domestic debt, and participation in the Debt Service Suspension Initiative (DSSI).[3]

Going forward, fiscal consolidation is required to protect medium-term fiscal sustainability. Six of the PIC-9 are already at a high risk of debt distress (Vanuatu is rated at medium risk and Palau and Nauru's debt is rated as sustainable), and several countries have run down fiscal buffers to finance recent expansionary fiscal policy. Over the coming years, aid is likely to return to pre-crisis levels and sovereign rents are projected to remain flat as a share of GDP. The PIC-9 lack access to international capital markets and domestic debt markets are shallow. Consequently, fiscal consolidation is necessary to balance the budget, and to avoid a sharp cut in public service delivery in the future. In addition, long-term projections indicate that the PIC-9 are likely to face significant fiscal challenges over the coming 20 years and have limited capacity to finance additional spending, including for human capital. While several countries have sizeable sovereign wealth funds, almost all have strict withdrawal rules, meaning governments cannot easily use them for immediate budget financing. Even where this is possible (FSM and Tuvalu), repeated drawdowns to finance fiscal deficits are not advisable, as this will undermine the funds' intergenerational equity objectives. Thus, a medium-term fiscal adjustment is needed to meet the region's large development spending needs, while managing the risk of debt distress and rebuilding fiscal buffers to prepare for future shocks. The fiscal adjustment could include a gradual increase in domestic revenues and containing current expenditure at prudent levels. Continued access to grants in line with pre-pandemic trends is also essential to fund capital investment projects for sustainable development and climate resilience.

Improvements in human capital outcomes will need to come from increased spending efficiency. The education and health sectors already account for a high proportion of spending across the PIC-9. This means that it is unlikely that governments will be able or willing to increase social spending via reallocation from other sectors. Given the PIC-9's limited capacity to finance additional spending, improving human capital outcomes will thus require efforts to improve the efficiency of sector spending within the existing allocations. In contrast, fledgling social protection systems across the region will require additional spending to increase coverage and improve delivery systems. This could be financed from increased domestic revenues or efficiency savings in other sectors, including via the measures identified in this report. The exceptions are RMI and Kiribati, where copra subsidies represent sizeable expenditure items. Reallocating some of this spending to poverty-targeted social assistance programs should be the focus in these countries.

3. Established by the G20 and operational from May 2020 to December 2021, the DSSI facilitated the suspension of debt-service payments to official bilateral creditors from 48 developing countries that requested the suspension (including Samoa and Tonga).

This PER aims to identify measures that deliver additional domestic revenues and public spending efficiency savings to support both improved human capital outcomes and the required fiscal adjustment. In a fiscally constrained environment, improved allocative efficiency of spending is a natural first step towards the goal of improving human capital outcomes, as it aims to improve the quality of public services while keeping the level of sector spending largely unchanged. As such, efficiency measures would be expected to encounter relatively less political and public opposition compared to direct spending cuts that may impact public service delivery negatively. The timing of measures to increase revenues should be calibrated with the economic recovery, to ensure they do not undermine the recovery. The subsequent sections, and Tables ES1–9 at the end of this Executive Summary, identify key revenue-raising and efficiency-enhancing measures and estimate their potential fiscal impact, where feasible.

Increasing domestic revenue mobilization

Closing part of the large tax gaps—estimated to be 8–17 percent of GDP—needs to be at the heart of the PIC-9's medium-term revenue strategy and can be started once the recovery is underway. The PIC-9 lack access to international debt markets, so the fiscal envelope is constrained by the taxes they can collect, sovereign rents, and concessional financing from development partners. The last two have the potential to be very volatile, so tax collection needs to be the foundation of the PIC-9 revenue strategy as the region emerges from the COVID-19 crisis. Low domestic revenues (excluding sovereign rents) in several PIC-9 economies reflect sizeable structural 'tax gaps'. These are a measure of the difference between estimated tax collection potential, based on the performance of other countries at a similar income level, and actual tax revenue. Tax gaps for the PIC-9 are estimated to be between 8 and 17 percent of GDP. These large tax gaps arise from a combination of low compliance and tax bases that are narrow due to high thresholds and costly exemptions. In a few cases, the absence of a general consumption tax (Nauru), a corporate income tax (CIT) (Palau), or any income taxes (Vanuatu) represents the most significant case of narrow tax bases. Tax potential in several of the PIC-9 can also be raised through increases in select tax rates. Revenue reforms can be introduced once the recovery is underway. These should be prioritized and sequenced as part of a medium-term revenue strategy that is integrated in a medium-term fiscal strategy.

Improving the quality of indirect taxation will support revenue efficiency and fairness. Value-added tax (VAT) policy reforms that can help close the VAT gap include expanding the base by lowering VAT thresholds (Kiribati, Palau, Samoa) and rationalizing VAT exemptions (Tonga, Kiribati). These reforms would help VAT efficiency and improve horizontal equity by removing some of the distortions that come from uneven treatment of different sectors and businesses. On the administration side, ensuring timely VAT refunds may result in revenue losses in the short term, but improve trust and voluntary compliance, helping raise revenue over the medium term. Voluntary compliance can also be improved through other measures that ease the burden of paying taxes, including rolling out VAT e-filing and e-payment. Higher compliance is also likely to follow from strengthened enforcement, including through using third-party data to enhance audits as part of a broader compliance improvement strategy. Higher VAT can also come from raising the statutory rate in countries whose rate is currently below comparator countries (Tuvalu, Palau, Kiribati). For FSM and RMI, moving from a gross-revenue regime to a VAT regime is a critical

reform, which can improve horizontal and vertical equity, and increase revenue. Indirect taxation in the PIC-9 can also be improved through reform of excises. Implementation of the PACER Plus trade agreement will lead to losses in trade taxes. These losses can be offset by higher excises on tobacco, alcohol, and sugar-sweetened beverages, which would also support economic, health, and fiscal objectives over the medium term.

Higher indirect taxation on vulnerable groups should be offset by more progressive direct taxation and government spending. Overall, higher indirect taxation may result in an increased tax burden on, or higher prices for, vulnerable groups in society. This challenge is best addressed in two ways that together make fiscal policy supportive of poverty and equity considerations: (i) strengthening direct taxes, so that the tax system in sum is progressive, with the higher-income deciles paying more; and (ii) ensuring that spending supports the poor and vulnerable, including through targeted cash transfers, and public goods and services consumed by the poor and vulnerable.

Increased use of direct taxation will increase progressivity and raise more tax revenue. Direct taxation instruments are central to improving the progressivity of tax systems. However, direct taxes are currently underutilized by the PIC-9. Vanuatu has no income taxes at all, while Palau has no corporate income tax. Most of the PIC-9 rely on personal income taxation (PIT). Yet, even here, the tax net in countries like Tuvalu appears very narrow due to high thresholds and noncompliance, and the rate for the top marginal bracket in FSM, RMI, and Palau is low compared to peer countries. In contrast to the performance of PIT, CIT productivity is low compared to peer countries, particularly in Samoa and FSM. Reforms that could help improve CIT productivity include rationalizing CIT exemptions; strengthening measures that counter base erosion and profit shifting and other forms of tax avoidance; and improving compliance management to tackle tax evasion. Property taxes, which can be some of the most efficient and progressive types of taxes, are also very low in the PIC-9. Higher taxes on immovable property can be a useful instrument to raise local revenue to finance local services, strengthening the accountability linkages between revenue, spending, and local governance.

In addition, greater regional cooperation in the management of fishing license fees has the potential to generate substantial increases in domestic revenues for several PIC-9 countries. Fishing revenues related to the Parties to the Nauru Agreement (PNA) Vessel Day Scheme (VDS) for purse-seine tuna vessels represent 8–75 percent of domestic revenues in Kiribati, Tuvalu, RMI, FSM, Nauru, and Palau. Maximizing the long-term benefits from these resources is crucial to fiscal sustainability. Reforms that provide greater flexibility and transferability of VDS days could lead to an annual increase in fisheries sector revenues of 8–25 percent of GDP in FSM, RMI, and Kiribati. Higher revenues are also possible in Palau, Nauru, and Tuvalu. However, translating high and volatile fishing revenues into better development outcomes will also require better quality spending. This can be achieving by strengthen medium-term fiscal frameworks, including improved capacity for revenue forecasting, fiscal rules to manage windfall revenues, and stronger medium-term expenditure frameworks.

Improving education outcomes and spending efficiency

Public education spending is relatively high across the PIC-9 when compared to peer countries, but is especially high in Kiribati, Tuvalu, RMI, and FSM (the 'high-spending countries'). Spending per student (unit costs) and public education spending as a share of GDP and total public spending is similar to peer countries in Samoa, Tonga, Palau, Nauru, and Vanuatu. However, public spending is much higher than peers in the high-spending countries.

High unit costs are driven by non-wage factors, due to the lack of economies of scale, large school grants, and high spending on scholarships and food provisions. The teacher wage bill represents an unusually small share of public education spending in the PIC-9. Yet, teacher salaries are adequate and class sizes are not too large. Rather, the reduced share of teacher wages reflects larger-than-usual non-wage expenditures. There are three reasons for this: (i) limited economies of scale, as despite their limited number of students, the PIC-9 still need fully-fledged institutions with all the usual functions of an education system (administration, assessment, training, statistics, etc.); (ii) large direct transfers to schools through grants; and (iii) generous provision of food, scholarships, or transfers to various independent administrative bodies[4] in the high-spending countries.

Access has been improving, although primary education is not yet universal while access to secondary education remains limited, especially for youth and boys. However, this is likely to improve as entrance exams for secondary schools are being lifted and repetitions are declining. The limited number of secondary schools is a bottleneck, as travel distance to reach them from settlements can be prohibitive.

Learning outcomes were already very poor and worsened during the pandemic.[5] While official measures of learning poverty are not yet available for the PIC-9, World Bank estimates indicate that pre-pandemic learning poverty may be above the rates observed in PIC-9 peer countries, despite similar or higher spending. The latest data on student performance collected in late 2021 suggest that literacy rates declined during COVID-19.

Worse outcomes than peers despite their high level of spending suggests that the PIC-9 could improve the efficiency of public education spending. Cross country analysis suggests that, after accounting for population size and dispersion, education unit costs in the high-spending countries could be expected to be 13 to 23 percent lower. Savings are most likely to be feasible in overseas scholarships, school operational costs, and private subsidies and school grants.

Although the PIC-9 (and six other Pacific nations) have been participating in a regional assessment every three years since 2012, the data has not been made public, contrary to common practices. This hinders public debate about the quality of education provided and may contribute to an education crisis going unnoticed.

4. Education systems typically have several independent administrative bodies for overseeing the universities, for school inspectorates, and sometimes for facility management or a central assessment center.
5. According to the preliminary Pacific Islands Literacy & Numeracy Assessment (PILNA) 2021 report.

Analysis suggests that several factors may be behind the poor outcomes. First, official curricula are not providing long enough periods of teaching in vernacular language, while learning materials and assessment tools in local languages are lacking. Second, teachers' content knowledge and teaching practices may not be effective. Third, both the coverage and quality of Early Childhood Education is insufficient to prepare learners.

Education recommendations

Recommendations to accelerate learning and reduce spending inefficiencies are as follows:

Short-term actions

First, make improved learning outcomes for all children a national priority. To do this, the PIC-9 should: (i) reaffirm a national commitment to achieving Sustainable Development Goal (SDG) 4.1 and initiate public discussion on achieving critical education outcomes; (ii) develop and then launch a costed plan for accelerating learning, using evidence-informed strategies and interventions (for example, recent pilot programs in FSM and Tonga have shown positive results)—the RAPID framework[6] supported by the World Bank can help in identifying such strategies and interventions; and (iii) engage all partners involved in education, including parents, in a national movement to achieve SDG4 benchmarks on foundational learning.

Second, as part of the costed, evidence-informed plan for accelerating learning, consider including strategies and interventions consistent with evidence. For example, instruction should be aligned with learning needs through approaches such as targeted instruction, structured pedagogy, tutoring, and self-guided learning. In addition, information should be gathered about teachers' subject knowledge and teaching practice to target support to teachers, including through classroom observation. This can help to strengthen teacher training through coaching, mentoring, and peer learning. The PIC-9 should also reinforce learning in vernacular language, especially in primary school, by adapting curriculum, materials, and related assessment.

Third, more and better data are needed to guide decisions, including the following: (i) making public the information collected from the Pacific Islands Numeracy and Literacy Assessment (PILNA) and using these data to better understand the underlying drivers of poor performance; (ii) gathering data on teachers' content knowledge and current teaching practices to help design what training (and what amount) is needed and track whether such training is having an impact; (iii) reporting on a yearly basis the number of tertiary students and beneficiaries of overseas scholarships to ensure that economic returns and equity can be assessed, and reviewing the effectiveness of overseas scholarship with the development partners that contribute to their funding; (iv) ensuring regular data collection (especially enrolment numbers) to inform the distribution of school grants, deployment of teachers, and development of plans to increase enrolment; (v) filling large knowledge gaps in public accounting of education spending and how decentralized funding is used, both at the local and the school level when applicable; and (vi) building capacities in ministries of finance and education to engage in more evidence-based and strategic discussions around spending relative to the results the education sector is achieving.

6. For more details on the RAPID framework, see the World Bank's Guide for Learning Recovery and Acceleration.

Fourth, explore ways of reducing 'overhead' costs, including through enhanced regional cooperation, focusing on which functions could be delivered better through cooperation. For example, on curriculum design, monitoring teacher standards, and more pooling of budget resources to expand a regional university system.

Medium-term actions

Improve children's readiness for school by widening access to Early Childhood Education from the age of three, through local centers close to the population settlements (particularly in RMI, Samoa, Tonga, and Vanuatu). While such expansion would require substantial additional resources, statistical analysis suggests that this is likely the easiest way to improve overall poor outcomes.

Use a range of different policy instruments to expand access to secondary schools for children residing in the most remote areas, experimenting with different modalities to expand access while rigorously monitoring the costs of such modalities and their impact. This could involve supporting outer island students to access secondary schooling in urban centers by providing subsidies for transport and the cost of living away from home. Alternatively, countries could consider adding additional grades to existing primary schools in the most remote areas to allow students to continue to study (beyond their primary grades) in nearby schools. Allowing such an expansion would likely be cheaper than the boarding option, as it would facilitate enrolment at the secondary level while utilizing the existing teaching force and infrastructure to lower unit costs. However, such decisions should also consider the relative quality of learning in the urban secondary schools compared to outer island schools.

Strengthening the quality of health care and efficiency of public spending

Public spending on health is high across the PIC-9 compared to peer countries, both as a share of GDP and as a share of total government spending. Only Vanuatu and Tonga have spending similar to peer countries in both metrics. All other PIC-9 countries have considerably higher spending than peers across one or both measures. To some degree, this reflects a strong commitment to health by PIC-9 governments. However, it also reflects substantial support to the public health sector from external partners, and the cost of providing publicly funded services to a geographically dispersed population with limited economies of scale.

The delivery and financing of health in the PIC-9 is predominantly public, financed by governments through domestic revenue and foreign aid. Across the region, the public sector accounts for 80–95 percent of current health spending (including social health insurance schemes in FSM, RMI, and Palau), while private sector and household 'out of pocket' (OOP) payments are low. This composition is unique compared to peers due to the PIC-9 benefiting from substantial foreign aid to the health sector, along with low household spending (which the PIC-9 are encouraged to maintain to support access and equity objectives). However, the financing landscape is evolving due to some development partners transitioning out of the region, and the unwinding of considerable pandemic support. In this context, improved spending efficiency is crucial to improve health service delivery. To achieve this, health sector governance needs to be strengthened, and development partners are urged to improve transparency of funding to assist governments to better track, coordinate, and effectively use resources for health.

Ministries of Health (MOH) spend more than half of their annual budget on human resources (HR), followed by pharmaceuticals and medical supplies, and/or overseas medical referrals (OMR). The distribution of facilities and human resources for equitable access to health services is a major challenge, with spending focused on hospitals and urban centers. MOHs are urged to review and adopt service delivery models that: (i) focus on primary health care and ambulatory care sensitive conditions (ACSCs);[7] (ii) make the best use of resources along the whole continuum of care (from prevention and primary health care all the way to OMR); and (iii) can adapt and respond to crises, including by taking advantage of evolving digital tools and telehealth opportunities.

Despite substantial public health spending, PIC-9 progress towards Universal Health Coverage (UHC) is slower than in peer countries. Non-communicable diseases (NCDs) make up an increasing share of the overall disease burden and premature deaths. This has considerable implications for human capital, the resilience of populations to disease outbreaks and broader disasters, and the economic potential of individuals, households, and economies. Challenges remain with communicable diseases, particularly tuberculosis (TB), along with intermittent outbreaks of food- and water-borne infections. While there have been some improvements in reproductive, maternal, neonatal, child, and adolescent health, levels of stunting and teenage pregnancies remain a concern in certain countries. Violence against women and girls in the Pacific is amongst the highest globally. Data is limited on the impact of COVID-19 on health outcomes, but there is evidence of a deterioration of some routine vaccinations, forgone care for NCDs, reduced active case finding for TB, and increased domestic violence.

Given the need for fiscal consolidation with already high public health spending, improvements in health outcomes will need to come from increased efficiency and equity of spending. Taxation policies on both unhealthy and healthy products could also be further leveraged.

Health recommendations

Recommendations to improve the quality of health spending are as follows:

First, and as a pre-requisite to successfully implement and monitor the impact of any other changes:

Strengthen corporate and clinical governance as this will deliver more efficient and quality health results. The PIC-9 are encouraged to reinvigorate governance mechanisms that will improve health sector performance, informed by timely and fit-for-purpose data and analytics. Policies to progress UHC will need to be developed where they are not available (RMI), and more actively rolled-out and monitored where they are (Tonga, Kiribati, Vanuatu).

7. ACSCs are conditions for which hospitalizations are thought to be avoidable through public health interventions and early disease management, usually delivered in an ambulatory setting (outpatient) such as primary care.

Secondly, the PIC-9 are encouraged to improve technical efficiencies by implementing better systems and processes starting with large expenditure areas:

Better management and coordination of patient medical referrals (both local and overseas), alongside more effective use of visiting specialist medical teams, will make health dollars go further. PIC-9 countries with substantial and/or rapidly increasing OMR expenditure (Kiribati, Nauru, RMI, FSM, and Tuvalu) should complete a detailed analysis of the costs and options to improve the use of these funds. Practical, fit-for-purpose administration processes are needed, including comprehensive, regularly updated, and standardized patient databases for routine monitoring and analysis. In addition, the PIC-9 are encouraged to become strategic purchasers of OMR services—including exploring shared regional agreements—rather than being 'passive' buyers. Concurrently, MOHs must continue strengthening core diagnostic, rehabilitative and palliative services that can be delivered safely in-country, so that OMR is predominantly used to meet treatment deficits.

Strengthening supply chain management systems for pharmaceutical and medical supplies can generate savings by reducing costs, stock-outs, and wastage. The PIC-9 are encouraged to complete a detailed analysis of existing procurement practices. Such reviews have the potential to reduce line-item costs by up to 30 percent. In addition, investments are needed in systems that enable timely monitoring of supplies across facilities. Pooled procurement and multi-year procurement contracts should also be explored.

Better adaptive design of infrastructure and management of utility consumption may generate considerable savings. The PIC-9 are encouraged to complete an audit of utility expenditure and monitor actions to reduce costs, with findings used to inform new/renovation designs and maintenance plans for more climate resilient and efficient facilities.

Updating service delivery models—including reviewing the total number of health facilities—combined with better management and coordination of HR can lead to more efficient and equitable health care. The PIC-9 are encouraged to review the number and expected functions of health facilities, with a view to consolidating finite resources into fewer better-resourced facilities, combined with effective, regular outreach and use of digital tools, rather than having many poorly resourced facilities. This review will inform adjustments to improve the skill mix and distribution of HR. This should be complemented by better use of standard operating procedures for quality of care, and implementation of 'best buys' for priority services.

Thirdly, the PIC-9 are encouraged to improve allocative efficiency by increasing the share of resources provided for large return-on-investment areas:

Better integration of health services is needed across the continuum of care in the PIC-9. The PIC-9 are encouraged to improve horizontal integration across health programs. This includes directing more resources to both primary and secondary prevention and ACSCs to avoid disease progression and costly avoidable hospitalization, with a focus on prevention, detection, and routine management of NCDs. In Kiribati, Nauru, Tuvalu, FSM, RMI, and Vanuatu, additional efforts are required on child health and nutrition, and sexual and reproductive health. Better vertical integration of health services is also needed across the continuum of care, with more

emphasis on health promotion and early disease intervention activities, through to more complex clinical curative, rehabilitative, and palliative care. Better integration across sectors is also crucial to tackle the social and economic determinants of health, with focused multi-sectoral approaches to improving health for all.

Finally, effective management of health resources requires staff that are empowered to take timely action, informed by quality information and processing systems. The PIC-9 are encouraged to address health sector management challenges by expanding information systems and analytical capacities to develop and use data for decision making, including digital tools.

Investing in an expansion of social protection

Social protection is a key enabler of inclusive growth, human capital accumulation, and poverty alleviation. Social protection measures enhance resilience by insuring against negative impacts on wellbeing due to shocks; foster equity by combating chronic poverty and ensuring a minimum income or consumption floor; and create opportunity through promoting investments in human capital (education and health) and linking people to gainful employment.

Social protection in the PIC-9 is inadequate, especially in the case of social assistance. Social assistance is underfunded, with formal schemes mostly restricted to small programs targeting the elderly and people with disabilities. Employment programs are largely non-existent, apart from labor mobility units established as part of overseas employment programs. Social insurance is more developed, though coverage is limited given the size of the informal sector in the PIC-9 and adequacy is a concern.

Prior to the pandemic, most of the PIC-9 were spending less than 0.5 percent of GDP on social assistance, far below global (1.5 percent), regional (1.1 percent), and comparator country (2.2 percent) averages. Low levels of spending are reflected in low coverage, with PIC-9 social assistance programs reaching only 10 percent of the population on average, compared to 43 percent in East Asia and the Pacific. The exceptions are Kiribati and RMI, which spend around 9 and 3 percent of GDP, respectively (14 and 5 percent of the annual budget, respectively) seeking to support poor and vulnerable households through copra subsidies. The value of formal social assistance programs in the Pacific was highlighted during the pandemic, with simulations showing that pandemic-related social protection expansions reduced poverty by up to 5 percent of the population, compared to what it would have been in the absence of such programs.

Social protection recommendations

Achieving a resilient and inclusive recovery will require additional spending on social protection and reforms to current programs. Recommendations to improve the adequacy and efficiency of social protection spending are as follows:

First, PIC-9 countries should allocate more resources to social assistance, with a view to bringing spending towards the global average of 1.5 percent of GDP. There is a strong case for increasing spending on formal social assistance, given the vulnerability of the PIC-9 to shocks, the low levels of current spending, and international evidence of the positive impact that cash

transfer programs and related measures can have on the poor and vulnerable. Therefore, even in the context of overall fiscal consolidation, additional spending on social protection is justified. Increased spending, coupled with improved targeting, will expand both the coverage and adequacy of safety nets in PIC-9 countries.

Second, improving the targeting of social assistance will reduce poverty, especially when coupled with spending increases. Simulations suggest that poverty-targeted cash transfers can significantly impact poverty levels, with spending of 1.5 percent of GDP halving poverty in Samoa, Tonga, and RMI. Such transfers can be linked to productive inclusion and employment services.

In the case of Kiribati and RMI, the focus should be on improving the allocative efficiency of spending on copra subsidies. Such support is an inefficient way of targeting the poor, with benefits accruing unequally to those that have the ability and resources to harvest copra. The impacts on poverty of redirecting a portion of the copra subsidy towards cash transfer programs are very significant in both countries. In RMI, reverting to the 2016 copra price (US$0.30/pound) and using the associated US$3m (1.2 percent GDP) in savings on a poverty targeted cash transfer program would more than halve poverty (from 7.2 to 3.4 percent of households). In Kiribati, reverting to the 2021 copra subsidy ($A 2/kilo) and channeling the $A 20 million (7.3 percent of GDP) of fiscal savings via a similar program would reduce the share of households in poverty by 72 percent (from 21.9 to 6.1 percent of households). Alternatively, a poverty targeted social assistance program costing only $A 4.4 million (1.6 percent of GDP) could achieve the same reduction in poverty as the doubling of the copra price implemented this year, while also generating a fiscal saving of $A 15.6 million (5.7 percent of GDP).

Third, investments in social assistance programs and delivery systems are needed to facilitate improved support to the poor and vulnerable. Improved collection and use of information on the socioeconomic situation of poor and vulnerable households is crucial, with the establishment of consolidated social registries of households and their information (including payment details) important in the long term to helping the PIC-9 respond to future shocks through adaptive social assistance support.

Fourth, there is also a case for PIC-9 countries to invest in employment and productive inclusion services, which are currently either absent or very limited in reach and scope, and to link these to an expansion of social assistance. Such programs (which combine cash grants and skills training) can help to both overcome political opposition to cash transfers, while also making social assistance programs more sustainable by providing exit strategies and support for beneficiaries to move into self-employment and wage employment. The case for increased spending is especially compelling for services related to labor mobility and migration, given its significant returns. For Kiribati, Tuvalu, Tonga, Vanuatu, Samoa, and Nauru, labor mobility-related employment services can both ensure that the most is made of preferential access to the Australian and New Zealand labor markets, while also supporting reintegration of returning workers. For FSM, RMI, and Palau—where citizens have open access to the United States—the focus should be on training and education that will improve outcomes for migrants. A priority is to ensure that skills and vocational education and training meet the needs of employers. Labor market intermediation services, informed by up-to-date assessments of labor market demand for skills, can assist. Reforms to lower the costs of sending and receiving remittances can also help to maximize the societal benefits of labor mobility and migration.

Finally, country-specific reforms to social insurance across the PIC-9 can help to improve sustainability, coverage, and adequacy. In general, FSM, RMI, and Palau with defined benefits schemes should prioritize the sustainability of their schemes, given past challenges in this area coupled with large-scale migration. In the case of defined contribution schemes that exist in other PIC-9 countries, the priorities are (in)adequacy of pension savings and in some cases low levels of coverage, which are particularly evident in the informal sector. Age of retirement, contributions, investment performance, rules relating to withdraw, and the formalization of employment are important determinants. Reform of social insurance is complex and specific to country context, so any changes should be preceded by detailed actuarial studies. However, analysis indicates that the following areas should be studied in the six PIC-9 with defined contribution schemes—Kiribati, Nauru, Tonga, Samoa, Vanuatu, and Tuvalu (although Nauru only recently established their Superannuation Fund, so parametric changes should be avoided in the immediate future): (i) an increase in the retirement age; (ii) withdrawal provisions and limits (for early retirement, unemployment, disability, economic shock)—including the introduction of these in countries where they do not currently exist; (iii) the form of payouts and implications for adequacy; and (iv) the age of eligibility for non-contributory social assistance (social pensions).

The role of development partners

Given the PIC-9's structural aid dependence, the volume, terms, and modality of developing partner financing have a critical role to play in supporting fiscal sustainability and a human capital transformation in the PIC-9. Grants finance one-third of government spending across the PIC-9, on average. As a result, development partner decisions and the design of their financial support have a significant impact on PIC-9 public finances and service delivery. In some cases, these introduce or exacerbate rigidities and inefficiencies in PIC-9 budget processes, contributing to sub-optimal results. In addition, achieving the region's development goals and enhancing resilience to climate change will require considerable financing over the medium term.

Development partner recommendations

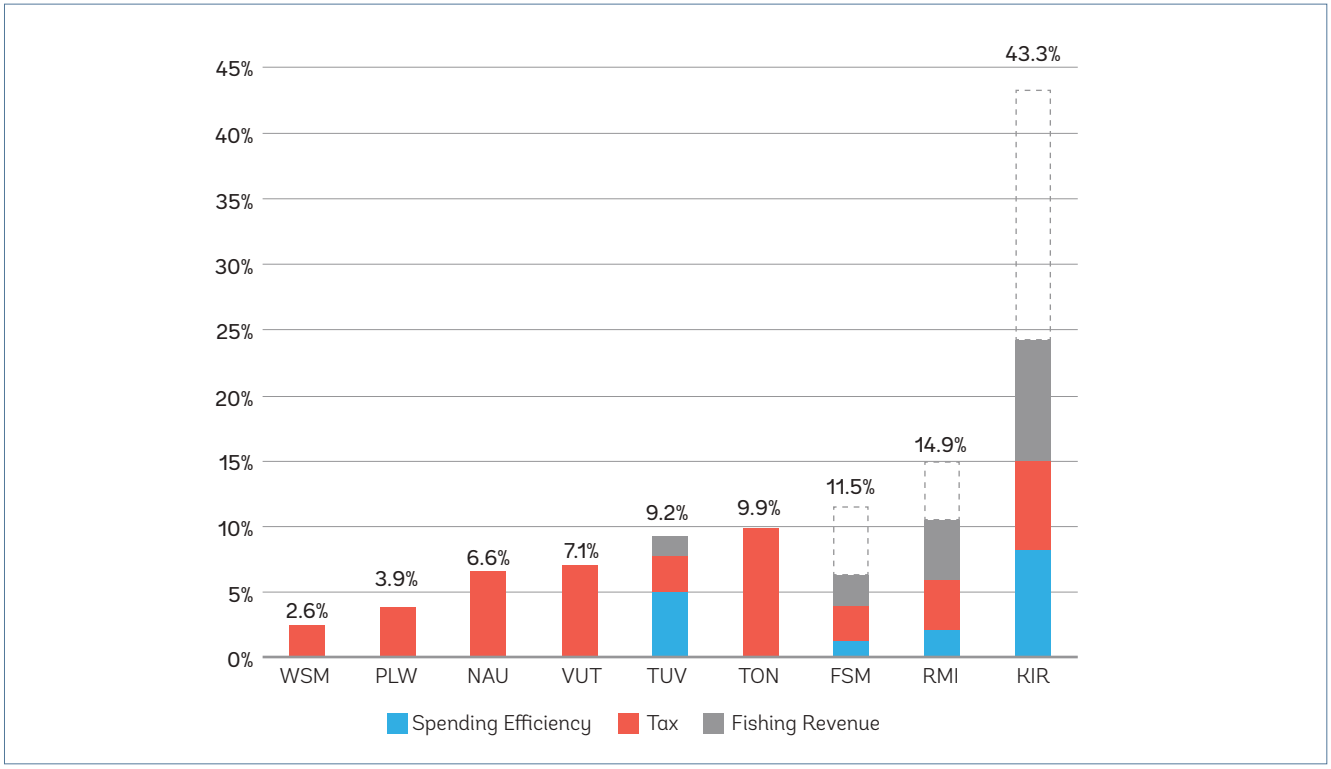
Recommendations for development partners are as follows:

i. **First, development partners should seek to maintain the volume of financial support** at least at pre-COVID-19 levels.
ii. **Second, all financing should be highly concessional,** and on grant terms for the six PIC-9 countries rated at a high risk of debt distress under the IMF/World Bank Debt Sustainability Analysis (DSA).
iii. **Third, to the extent possible, financing should be 'on plan', 'on budget', and 'on system'.** That is, development partner-financed activities should be reflected in the government's annual work plans, financing should be recorded in the government's budget, and funds should flow through the government's own budgetary and financial systems.
iv. **Fourth, development partner financing modalities should be long term and flexible,** to avoid introducing rigidities, inefficiencies, and volatility that limit the responsiveness of PIC-9 public spending to emerging priorities.
v. **Finally, improving the efficiency of PIC-9 health, education, and social protection systems will require concerted efforts by development partners** to: (i) build PIC-9 governments' capacity for project management and implementation; (ii) provide long-term complementary capacity to support local capacity, not just short-term technical assistance; (iii) enhance donor coordination (including through joint projects); and (iv) consider increasing the role of budget support to complement project financing.

Conclusion: Building human capital during fiscal consolidation

The reforms identified in this report could deliver a fiscal impact of 3–43 percent of GDP for each of the PIC-9 (Figure ES2). Tables ES1–9 summarize the measures identified and their estimated fiscal impact, where feasible, for each of the PIC-9. Combined, the estimated revenue gains and spending efficiency savings represent total potential annual fiscal impacts ranging from 2.6 percent of GDP in Samoa to 43.3 percent of GDP in Kiribati. These figures do not include reforms for which the potential fiscal impact could not be quantified at this time (for example, improving the efficiency of OMR schemes). The overall potential fiscal impacts could, therefore, be even higher. Additionally, by focusing on social sector spending, this PER analyzes spending that accounts for 28–45 percent of total government spending across the PIC-9 (except Nauru, where it is only 16 percent). Additional efficiency gains may also be feasible in the spending not analyzed in this PER. Tables ES 1–9 also highlight specific areas where this additional fiscal space could be prioritized to improve human capital outcomes and livelihoods, supporting a diversification in the drivers of economic growth. The reforms can also underpin a medium-term fiscal adjustment which can simultaneously meet the region's large development spending needs, while managing the risk of debt distress and rebuilding fiscal buffers to prepare for future shocks. A recommended timeframe for each reform is also provided. These recommendations reflect the complexity of several reforms and the need to prioritize reform efforts given the PIC-9 governments' limited capacity and varying economic contexts. These are summarized as short term (in the next 2 years), medium term (2–4 years), and longer term (4+ years). By implementing the measures outlined in this report, the PIC-9 can emerge stronger from the pandemic and recent overlapping shocks from natural disasters and inflation.

Figure ES2: Reform recommendations could deliver a fiscal impact of 3–43 percent of GDP for each of the PIC-9



Note: Spending efficiency measures refer to the education, health, and social protection sectors. For fishing revenues, the solid bars represent the estimated minimum impact of the reforms, while the dotted bar represents the estimated maximum impact.

Table ES1:
Summary of Policy Actions and Potential Fiscal Impact

KIRIBATI

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Close part of the VAT gap, through (i) lowering VAT threshold; (ii) rationalizing VAT exemptions; (iii) easing the VAT admin burden (e-filing, e-payment, and timely VAT refunds)	*Commence admin reforms in short term, continuing policy reforms over medium term*	Up to US$10.7m	5.2%
	Tax	2. Improve CIT productivity, through a focus on compliance management, including: (i) rolling out e-filing and e-payment; (ii) enforcing on-time filing; (iii) dedicated focus on compliance management of largest businesses	*Develop medium-term strategy, but begin implementing in short term*	Up to US$1.9m	0.9%
	Tax	3. Increase the VAT statutory rate in line with peers	*Medium term (2–4 years)*	For every 1 pp increase in VAT rate	
				Up to US$1.2m	0.6%
	Fishing Revenue	4. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	*Longer term*	US$19.1–58.3m	9.3–28.3%
Spending Efficiency Measures	Education	5. Based on Kiribati's size and dispersion, simulations suggest that spending per student (unit costs) could be at least 13 percent lower. Savings are most likely to be feasible in overseas scholarships, private subsidies and school grants, and school operational costs	*Complete detailed studies in the short term, reform in the medium to longer term*	US$5.8m	2.8%
	Health	6. Undertake a detailed analysis of spending and options to reduce unit costs of the overseas medical referral scheme (including potential multi-country agreements)	*Short term*	Lower spending on overseas medical referrals	
	Health	7. Strengthened supply chain management, planning and procurement for key pharmaceuticals and medical supplies could reduce costs by up to 30 percent	*Medium term*	US$0.7m	0.4%

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Spending Efficiency Measures	Social Protection	8. Doubling the copra price to $A 4/kilo is simulated to reduce national poverty by 3.8 percentage points (from 21.9 percent to 18.1 percent). Reverting to the 2021 copra subsidy ($A 2/kilo) and directing $A 20 million (7.3 percent of GDP) in fiscal savings to a poverty-targeted social assistance program would reduce poverty by almost three-quarters (from 21.9 percent to 6.1 percent of households).[8] Alternatively, the authorities could achieve the same level of poverty reduction as the $A 4/kilo copra price by channeling $A 4.4 million (1.6 percent of GDP) into a poverty-targeted social assistance program—creating fiscal savings of $A 15.6 million (5.7 percent of GDP)	*Complete detailed studies in the short term, reform in the medium term*	Reduce national poverty by almost three-quarters (from 21.9 percent to 6.1 percent) with no fiscal saving **OR** Reduce national poverty by 3.8 percentage points (from 21.9 percent to 18.1 percent) AND save US$11.7 (5.7 percent of GDP)	
	All	**Overall Revenue/Efficiency Impacts**		**US$39.4–90.4m**	**19.1–43.9% GDP**
Quality of Spending Measures	Education	9. Assess the economic returns, equity, and efficiency of tertiary scholarship and allowance spending	*Short term*	Improve efficiency and equity of scholarship spending	
	Education	10. Consider extending teaching in vernacular language at least until the end of primary school to help accelerate learning	*Medium term*	Improve education quality	
	Health	11. Accelerate roll out and monitoring of role delineation policies to progress Universal Health Coverage	*Short term*	Strengthen quality and coverage of care	
	Social Protection	12. Following detailed actuarial studies, consider: (i) increasing the retirement age from 50 to 65 with a transition and eliminating early withdrawal at age 45; and (ii) reviewing withdrawal provisions and limits (for unemployment, disability, economic shock)	*Medium to longer term*	Strengthen adequacy and sustainability of pension scheme	
Other Measures	Public Financial Management	13. Consider establishing an accumulation rule for the Revenue Equalization Reserve Fund to reduce procyclicality of public spending	*Medium term*	Enhance fiscal sustainability	

8. Assumes targeting to the bottom 20 percent of the income distribution, with 20 percent inclusion and exclusion errors.

NAURU

Table ES2:
Summary of Policy Actions and Potential Fiscal Impact

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Introduce a broad consumption tax	*Medium term (2–4 years)*	Up to US$8.8m	6.6%
	Fishing Revenue	2. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	*Longer term (4+ years)*	Potential positive impact	
Spending Efficiency Measures	Education	3. Teacher remuneration appears high and class sizes are declining fast, so rationalization may be needed in the medium to longer term	*Medium to longer term*	Improve spending efficiency	
	Health	4. Undertake a detailed analysis of spending and options to reduce unit costs of the overseas medical referral scheme (including potential multi-country agreements)	*Short term (<2 years)*	Lower spending on overseas medical referrals	
Quality of Spending Measures	Social Protection	5. Invest in social assistance programs and delivery systems to support the poor and vulnerable; with a view to moving towards spending of 1.5 percent of GDP in the longer term. These should be linked to employment and productive inclusion services where possible	*Commence in the short term, continuing over medium and longer term*	Develop social assistance programs and related services	
	Social Protection	6. Avoid parametric changes in the short term. In the future, following detailed actuarial studies, consider increasing the retirement age from 55 to 65 and introducing early withdrawal provisions for hardship/shocks	*Longer term*	Strengthen adequacy and sustainability of pension scheme	

RMI

Table ES3: Summary of Policy Actions and Potential Fiscal Impact

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Strengthen tobacco taxation by raising rates and simplifying tariff structure	*Short term (<2 years)*	Raise revenue and reduce health impacts	
Revenue Measures	Tax	2. Move from Gross Revenue Tax to a VAT with a broad base (low threshold and limited exemptions)	*Medium term (2–4 years)*	Up to US$9.3m	3.6%
Revenue Measures	Tax	3. Strengthen property tax collection to the level of peers	*Medium term (2–4 years)*	Up to US$0.5m	0.2%
Revenue Measures	Fishing Revenue	4. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	*Longer term (4+ years)*	US$11.6–23.1m	4.5–8.9%
Spending Efficiency Measures	Education	5. Based on RMI's size and population dispersion, simulations suggest that unit costs could be 14 percent lower. Savings are most likely to be feasible in capital spending and school operational costs	*Complete detailed studies in the short term, reform in the medium to longer term*	US$5.7m	2.2%
Spending Efficiency Measures	Health	6. Undertake a detailed analysis of spending and options to reduce unit costs of the overseas medical referral scheme (including potential multi-country agreements)	*Short term*	Lower spending on overseas medical referrals	
Spending Efficiency Measures	**All**	**Overall Revenue/Efficiency Impacts**		**US$27.2–38.7m**	**10.5–14.9% GDP**

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Quality of Spending Measures	Education	7. Assess the economic returns, equity, and efficiency of tertiary scholarship spending. Consider alternative selection criteria to improve equity and align to domestic skill needs	*Short term*	Improve efficiency and equity of scholarship spending	
	Education	8. Increase spending in Early Childhood Education to expand access (currently 18 percent of children aged 3–5 years)	*Medium term*	Improve acccess to Early Childhood Education	
	Health	9. Develop national policies to progress Universal Health Coverage (such as Role Delineation Policies or Packages of Essential Health Services)	*Short term*	Strengthen strategic management of health resources	
	Social Protection	10. Reverting to the 2016 copra subsidy (US$0.30/pound) and directing the US$3 million (1.2 percent of GDP) in fiscal savings to a poverty-targeted social assistance program would more than halve national poverty[9]	*Complete detailed studies in the short term, reform in the medium term*	Reduce national poverty by more than half (from 7.2 percent to 3.4 percent)	
Other Measures	Public Financial Management	11. Seek reform to the RMI Compact Trust Fund distribution rule to mitigate against market volatility resulting in unstable annual distributions	*Short term*	Enhance fiscal sustainability	

9. Assumes targeting to the bottom 10 percent of the income distribution, with 20 percent inclusion and exclusion errors.

FSM

Table ES4: Summary of Policy Actions and Potential Fiscal Impact

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Strengthen tobacco taxation by raising rates and simplifying tariff structure	*Short term (<2 years)*	Raise revenue and reduce health impacts	
	Tax	2. Collect more from PIT, through adding a new top PIT rate, rationalizing exemptions, and/or improvements in compliance management	*Develop medium-term strategy, begin implementing in short term*	Up to US$1.2m	0.3%
	Tax	3. Improve productivity of CIT, through (i) lowering CIT threshold; (ii) improving compliance management; (iii) rolling out CIT e-filing and e-payment	*Commence admin reforms in short term, continuing policy reforms over medium term*	Up to US$2.0m	0.5%
	Tax	4. Move from Gross Revenue Tax to a VAT with a broad base (low threshold and limited exemptions)	*Medium term (2–4 years)*	Up to US$7.7m	1.9%
	Fishing Revenue	5. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	*Longer term (4+ years)*	US$9.2–30.7m	2.3–7.5%
Spending Efficiency Measures	Education	6. Based on FSM's size and population dispersion, simulations suggest that unit costs could be 14 percent lower. However, realizing these savings may be challenging, given the decentralized system where many administrative costs are duplicated at the federal and state level	*Complete detailed studies in the short term, reform in the medium to longer term*	US$5.3m	1.3%
	Health	7. Undertake a detailed analysis of spending and options to reduce unit costs of the overseas medical referral scheme (including potential multi-country agreements)	*Short term*	Lower spending on overseas medical referrals	
	All	**Overall Revenue/Efficiency Impacts**		**US$25.5–47.0m**	**6.3–11.5% GDP**

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Quality of Spending Measures	Social Protection	8. Invest in social assistance programs and delivery systems to support the poor and vulnerable; with a view to moving towards spending of 1.5 percent of GDP in the long term. These programs should be linked to employment and productive inclusion services where possible	*Commence in the short term, continuing over medium and longer term*	Develop social assistance programs and related services	
Other Measures	Public Financial Management	9. Seek reform to the FSM Compact Trust Fund distribution rule to mitigate against market volatility resulting in unstable annual distributions	*Short term*	Enhance fiscal sustainability	

PALAU

Table ES5:
Summary of Policy Actions and Potential Fiscal Impact

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Increase the VAT statutory rate in line with peers	*Medium term (2–4 years*	For every 1 percentage point increase in VAT rate	
				Up to US$1.1m	0.5% GDP
	Tax	2. Introduce a CIT regime	*Medium term (2–4 years)*	Up to US$6.8m	3.2% GDP
	Fishing Revenue	3. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	*Longer term (4+ years)*	Potential positive impact	
Spending Efficiency Measures	Health	4. Strengthened supply chain management, planning and procurement for key pharmaceuticals and medical supplies could reduce costs by up to 30 percent	*Short term (<2 years)*	US$0.4m	0.2% GDP
	All	**Overall Revenue/Efficiency Impacts**		**US$8.3m**	**3.9% GDP**
Quality of Spending Measures	Education	5. Assess the economic returns, equity, and efficiency of tertiary scholarship spending	*Short term*	Improve efficiency and equity of scholarship spending	
	Social Protection	6. Invest in social assistance programs and delivery systems to support the poor and vulnerable; with a view to moving towards spending of 1.5 percent of GDP in the long term. These programs should be linked to employment and productive inclusion services where possible	*Commence in the short term, continuing over medium and longer term*	Develop social assistance programs and related services	
	Social Protection	7. Following detailed actuarial studies, consider parametric reforms to both national pension systems	*Medium term*	Strengthen sustainability of pension funds	

Table ES6:
Summary of Policy Actions and Potential Fiscal Impact

SAMOA

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Improve productivity of CIT through rationalization of CIT incentives, strengthening anti-tax avoidance measures, and improvements in compliance management	*Develop medium-term strategy, begin implementing in short term (<2 years)*	US$16.9m	2.0%
	Tax	2. Strengthen property tax collection to the level of peers	*Medium term (2–4 years)*	US$3.4m	0.4%
Spending Efficiency Measures	Health	3. Strengthened supply chain management, planning and procurement for key pharmaceuticals and medical supplies could reduce costs by up to 30 percent	*Short term*	US$1.5m	0.2%
	All	**Overall Revenue/Efficiency Impacts**		**US$21.8m**	**2.6% GDP**

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Quality of Spending Measures	Education	4. Additional classrooms and at least 33 percent more teachers are needed to meet the 30 pupil/teacher ratio maximum in public primary schools. Fiscal implications should be carefully assessed	*Complete detailed studies in the short term, reform in the medium term*	Support improved learning outcomes	
	Education	5. Increase spending in Early Childhood Education to expand access (currently 30 percent of children aged 3–5 years)	*Medium term*	Improve access to Early Childhood Education	
	Education	6. Consider extending teaching in vernacular language at least until the end of primary school to help accelerate learning	*Medium term*	Improve education quality	
	Education	7. Large subsidies to private schools and school grants make teacher remunerations not transparent. They should be phased out while training spending should be increased	*Medium term*	Higher spending efficiency and teacher quality	
	Social Protection	8. Invest in social assistance programs and delivery systems to support the poor and vulnerable; with a view to moving towards spending of 1.5 percent of GDP in the long term. This should involve gradual reform of existing programs, aimed at improving impacts on poverty, and linkages to employment and productive inclusion services where possible	*Commence in the short term, continuing over medium and longer term*	Develop social assistance programs and related services	
	Social Protection	9. Following detailed actuarial studies, consider increasing the retirement age from 55 to 65, and increasing the early retirement age from 50 to 55	*Medium to longer term*	Strengthen adequacy and sustainability of pension scheme	

TONGA

Table ES7:
Summary of Policy Actions and Potential Fiscal Impact

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Reduce tax exemptions and zero ratings on consumption tax, excise tax, and customs duties, particularly for SOE fuel imports	*Commence in the short term (<2 years), continuing over medium term (2–4 years)*	Up to US$31.0m	6.2%
	Tax	2. Improve VAT compliance management through administrative reforms	*Develop medium-term strategy, but begin implementing in short term*	US$16.0m	3.2%
	Tax	3. Strengthen property tax collection to the level of peers	*Longer term*	US$2.0m	0.4%
Spending Efficiency Measures	Health	4. Strengthened supply chain management, planning and procurement for key pharmaceuticals and medical supplies could reduce costs by up to 30 percent	*Short to medium term*	US$0.7m	0.1%
	All	**Overall Revenue/Efficiency Impacts**		**US$49.7m**	**9.9% GDP**

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Quality of Spending Measures	Education	5. Large subsidies to private schools and school grants reduces the transparency of teacher remunerations and are inefficient. They should be reviewed and connected more strongly with enrollment	*Complete detailed studies in the short term, reform in the medium term*	Higher spending efficiency and better allocation of resources	
	Education	6. Assess the economic returns, equity, and efficiency of tertiary scholarship and allowance spending	*Short term*	Improve efficiency and equity of scholarship spending	
	Education	7. Increase spending in Early Childhood Education to expand access (currently only at 34 percent of children aged 3–5 years)	*Medium term*	Improve access to Early Childhood Education	
	Education	8. Consider extending teaching in vernacular language at least until the end of primary school to help accelerate learning	*Medium term*	Improve education quality	
	Health	9. Accelerate roll out and monitoring of packages of essential health services to progress Universal Health Coverage	*Short term*	Strengthen quality and coverage of care	
	Social Protection	10. Invest in social assistance programs and delivery systems (including the development of a social registry) to support the poor and vulnerable; with a view to moving towards spending of 1.5 percent of GDP in the long term. This should involve gradual reform of existing programs, aimed at improving impacts on poverty, and linkages to employment and productive inclusion services where possible	*Commence in the short term, continuing over medium and longer term*	Develop social assistance programs and related services	
	Social Protection	11. Following detailed actuarial studies, consider: (i) increasing the retirement age from 60 to 65, contingent on review of the early withdrawal provisions; and (ii) introducing a cap on withdrawals due to unemployment	*Longer term*	Strengthen adequacy and sustainability of pension scheme	

Table ES8:
Summary of Policy Actions and Potential Fiscal Impact

TUVALU

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Strengthen tobacco taxation by raising rates and simplifying tariff structure	*Short term (<2 years)*	Raise revenue and reduce health impacts	
	Tax	2. Improve CIT efficiency, including by (i) updating the CIT register; (ii) rolling out CIT e-filing and e-payment; (iii) enforcing on-time filing	*Develop medium-term strategy, but begin implementing in short term*	Up to US$1.5m	2.4%
	Tax	3. Increase the VAT statutory rate in line with peers	*Medium term (2–4 years)*	For every 1 percentage point increase in VAT rate	
				Up to US$0.2m	0.3%
	Fishing Revenue	4. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	*Longer term (4+ years)*	Up to US$0.9m	1.4%
Spending Efficiency Measures	Education	5. Based on Tuvalu's smallness and dispersion, simulations suggest that unit costs could be 23 percent lower. Savings are most likely to be feasible in overseas scholarships and school operational costs	*Complete detailed studies in the short term, reform in the medium to longer term*	US$3.0m	4.8%
	Health	6. Strengthened supply chain management, planning and procurement for key pharmaceuticals and medical supplies could reduce costs by up to 30 percent	*Short to medium term*	US$0.2m	0.3%
	Health	7. Undertake a detailed analysis of spending and options to reduce unit costs of the overseas medical referral scheme (including potential multi-country agreements)	*Short term*	Lower spending on overseas medical referrals	
	All	**Overall Revenue/Efficiency Impacts**		**US$5.8m**	**9.2% GDP**

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Quality of Spending Measures	Education	8. Assess the economic returns, equity, and efficiency of tertiary scholarship spending. Consider alternative models, such as flying in educators	*Complete detailed studies in the short term, reform in the medium term*	Improve efficiency and equity of scholarship spending	
	Education	9. Consider extending teaching in vernacular language at least until the end of primary school to help accelerate learning	*Medium term*	Improve education quality	
	Social Protection	10. Invest in social assistance programs and delivery systems to support the poor and vulnerable; with a view to moving towards spending of 1.5 percent of GDP in the long-term. This should involve gradual reform of existing programs, aimed at improving impacts on poverty, and linkages to employment and productive inclusion services where possible	*Commence in the short term, continuing over medium and longer term*	Develop social assistance programs and related services	
	Social Protection	11. Following detailed actuarial studies, consider increasing the eligibility age to receive a lump-sum benefit, balancing this against the incentive for compliance with the relatively high contribution rate	*Medium to longer term*	Strengthen adequacy and sustainability of pension scheme	
Other Measures	Public Financial Management	12. Consider establishing an accumulation rule for the Tuvalu Trust Fund to reduce procyclicality of public spending	*Medium term*	Enhance fiscal sustainability	

VANUATU

Table ES9:
Summary of Policy Actions and Potential Fiscal Impact

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Revenue Measures	Tax	1. Improve VAT efficiency to the level of Samoa, focusing on improvements in compliance management	*Develop medium-term strategy, but begin implementing in short term (<2 years)*	US$11.3m	1.2%
	Tax	2. Introduce a PIT regime	*Medium term (2–4 years)*	US$24.5m	2.6%
	Tax	3. Introduce a CIT regime	*Longer term (4+ years)*	US$30.1m	3.2%
Spending Efficiency Measures	Health	4. Strengthened supply chain management, planning and procurement for key pharmaceuticals and medical supplies could reduce costs by up to 30 percent	*Short to medium term*	US$0.6m	0.1%
	All	**Overall Revenue/Efficiency Impacts**		**US$66.5m**	**7.1% GDP**

	Sector	Policy Action	Recommended Timing	Potential Impact	
				US$	%GDP
Quality of Spending Measures	Education	5. Increase spending in Early Childhood Education to expand access (currently 43 percent of children aged 3–5 years)	*Medium term*	Improve access to Early Childhood Education	
	Education	6. Consider extending teaching in vernacular language at least until the end of primary school to help accelerate learning	*Medium term*	Improve education quality	
	Health	7. Accelerate roll out and monitoring of role delineation policies to progress Universal Health Coverage	*Short term*	Strengthen quality and coverage of care	
	Social Protection	8. Invest in social assistance programs and delivery systems to support the poor and vulnerable; with a view to moving towards spending of 1.5 percent of GDP in the long-term. These programs should be linked to employment and productive inclusion services where possible	*Commence in the short term, continuing over medium and longer term*	Develop social assistance programs and related services	
	Social Protection	9. Following detailed actuarial studies, consider: (i) increasing the eligibility age from the retirement savings account from 55 to 65; and (ii) reviewing the withdrawal conditions for retirement, Medisave, and Investment accounts	*Longer term*	Strengthen adequacy and sustainability of pension scheme	
Other Measures	Education	10. Although school grants are large, they are transparent and have been reviewed as effective. But a recent household survey indicates that parents, even the poorest ones, are still paying considerable amounts in school fees to cover costs that should be paid for by the school grants. These fees should be formally eliminated and enforced	*Short term*	Improve education access and equity	
	Public Financial Management	11. Consider establishing a Sovereign Wealth Fund financed by revenues from the Economic Citizenship Program	*Short term*	Enhance fiscal sustainability	

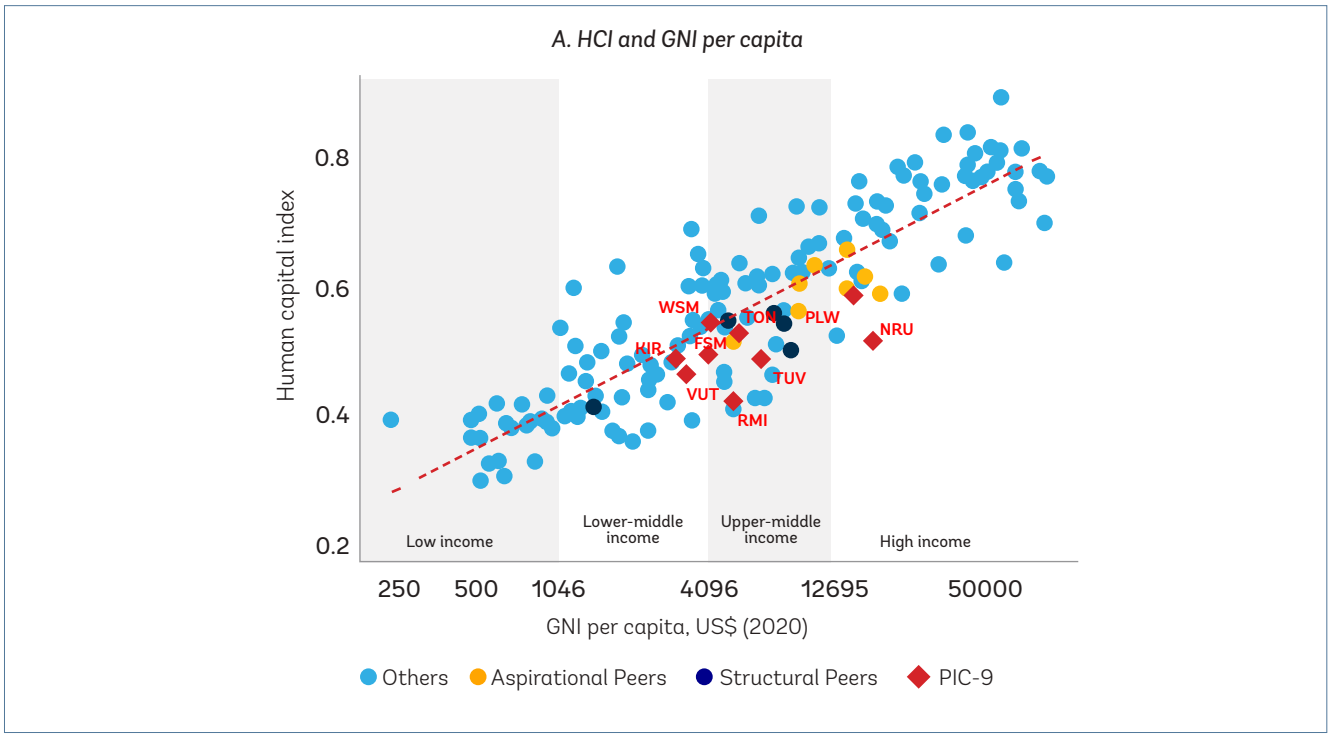
1. Fiscal

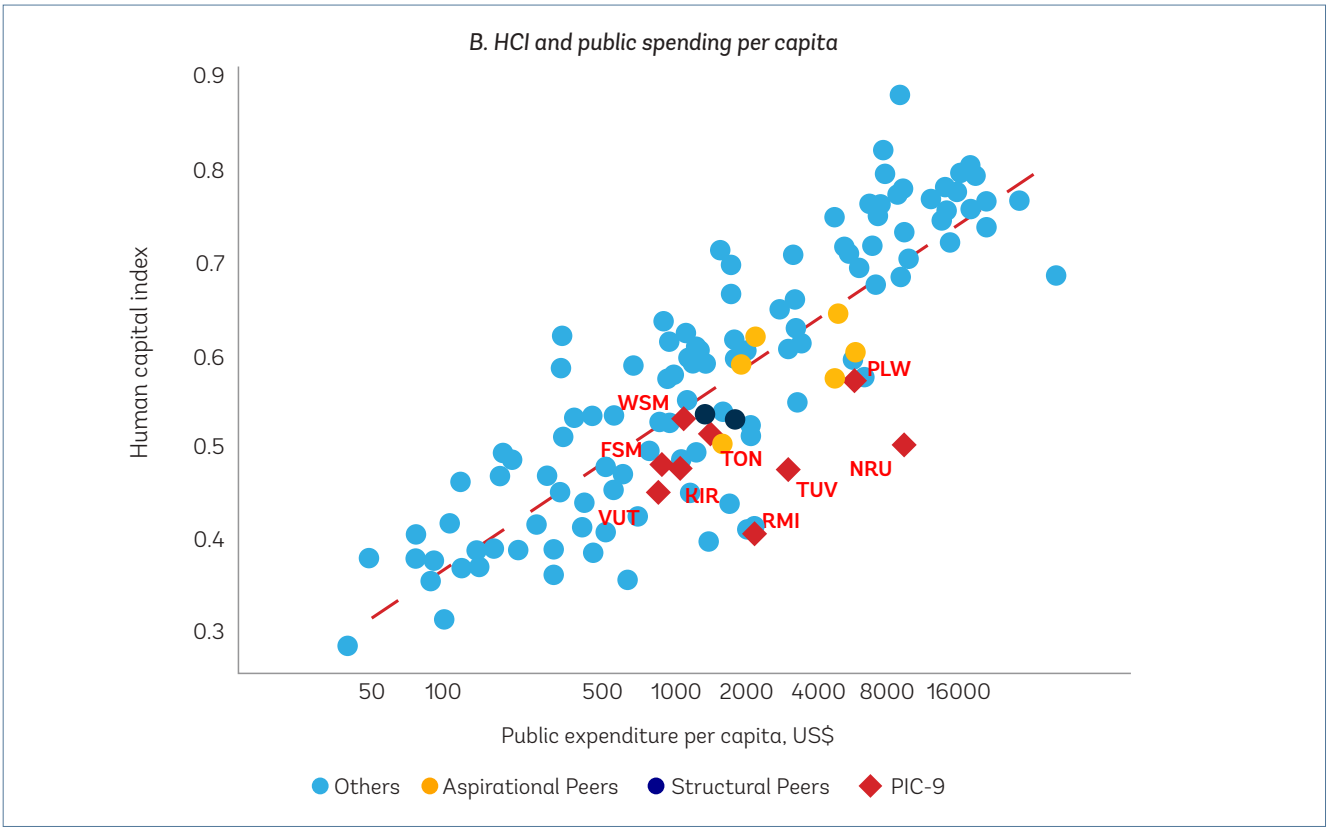
1. Fiscal

1.1 Introduction

The COVID-19 shock—compounded by overlapping shocks from natural disasters and inflation—threatens to undermine a decade of progress in building human capital across the PIC-9. Human capital is a crucial driver of economic growth and development, poverty reduction, and improved wellbeing. Limited human capital is a key constraint to inclusive growth in the PIC-9 (World Bank Group, 2023). Despite some progress in improving human development outcomes in recent years, the PIC-9 have low Human Capital Index (HCI) scores relative to their level of income and public spending (Figure 1.1). Furthermore, de-prioritization of investments in human capital has been used as a coping strategy across the Pacific—first in response to the COVID-19 shock, and more recently to natural disasters and rising inflation (World Bank, 2022a, 2022b). Vulnerable households are most likely to be forced to make such decisions, with the effect that existing inequalities are exacerbated (World Bank, 2020a). The pandemic has also widened existing gender inequalities, including in the labor market, access to health services and physical and sexual violence (Pacific Women, 2021). Combined, these effects risk reversing recent hard-won gains in human capital across the Pacific, which could have permanent scarring effects on productivity and prosperity. In this context, public finance has a critical role to play in building human capital as a central element in a green, resilient, and inclusive recovery.

Figure 1.1: Human capital in the PIC-9 is lower than would be expected for the region's level of development and public spending





Note: Values are FY15–FY20 averages.
Source: World Bank World Development Indicators (WDI) and country national budgets.

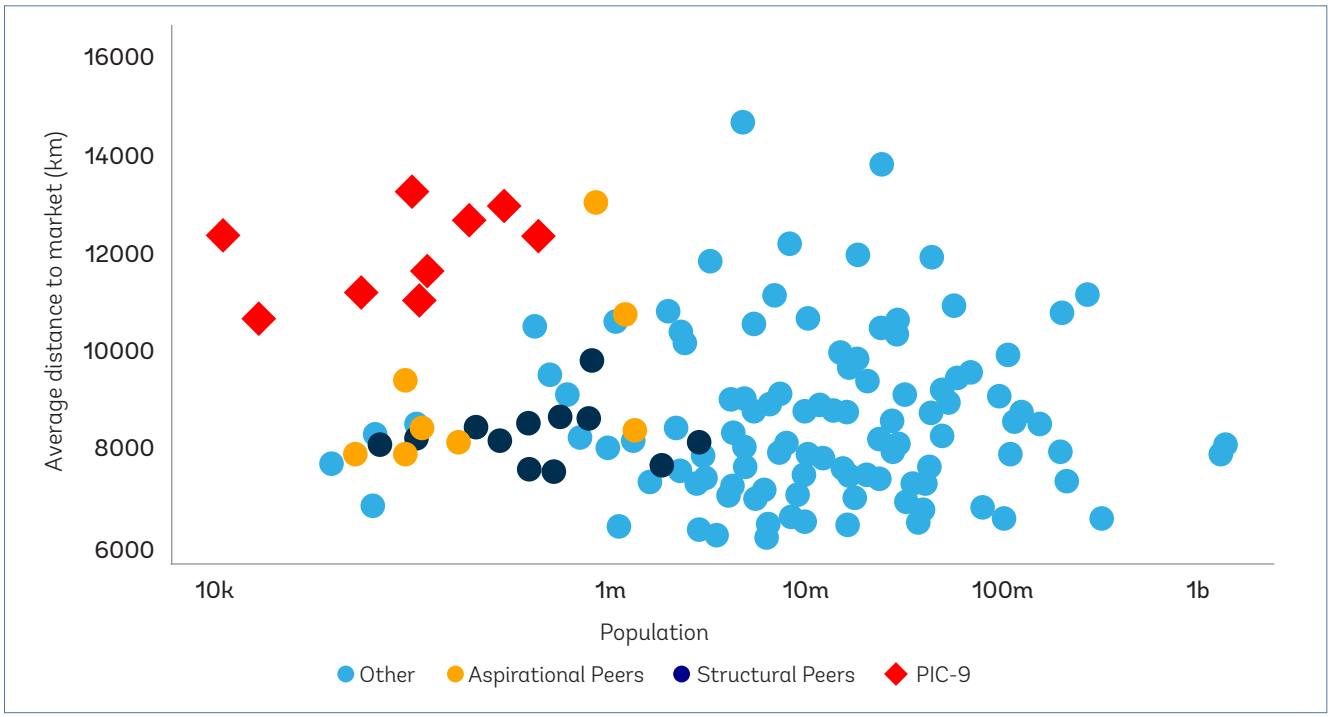
This chapter analyzes the PIC-9's fiscal performances over the past decade and provides a quantitative assessment of the outlook for government finances over the next 20 years. This chapter has two objectives: (i) to provide an overview of key structural aspects and recent fiscal trends in the region, and place spending in the social sectors (health, education, and social protection) in the context of overall public spending; and (ii) to undertake a deeper analysis of long-term fiscal and debt sustainability, to assess the extent to which the PIC-9 are expected to have the fiscal space to finance additional human capital spending. It does this by first analyzing the key structural factors that shape fiscal policy in the PIC-9. The chapter then assesses historical trends and changes in the composition of revenue and spending, using the PIC-9's performance on the HCI relative to their peers to provide context and broad framing for the subsequent discussion of the adequacy and efficiency of social sector spending in the following chapters. Particular attention is paid to the substantial response to COVID-19 and its impact on spending in the social sectors. The PIC-9's unique economic geography and its implications for spending efficiency are also assessed, along with the role of sovereign wealth funds in securing the region's long-term fiscal sustainability. The chapter then turns to debt sustainability and key areas of fiscal risk; and considers the actions required to manage the region's debt and fiscal vulnerabilities. Finally, the chapter assesses whether the PIC-9 are likely to have the fiscal space to finance additional spending to improve human capital outcomes, by estimating a range of scenarios for the evolution of government finances through to 2041. The chapter concludes with a summary of key findings.

1.2 What structural aspects drive the PIC-9 economies and fiscal policy?

1.2.1 Remoteness, smallness, dispersion, and vulnerability inhibit economies of scale and lead to structural aid dependence and a large role for the public sector

The PIC-9 face several constraints to public finances beyond those faced by other small island developing states. The PIC-9 are among the world's smallest and most isolated nations. Eight of the PIC 9 are archipelagos consisting of many inhabited islands spread over thousands of miles of ocean (Nauru is the only PIC-9 consisting of one island) (Figure 1.2). This unique economic geography—extreme remoteness, small size, geographic dispersion, and vulnerability to shocks—makes achieving inclusive economic growth and fiscal sustainability particularly challenging (World Bank, 2017, 2023).[1] Their small populations and domestic labor markets also mean that the PIC-9 face serious capacity constraints, further impeding the functioning of the public sector. These characteristics lead to higher public expenditure to deliver a given level of coverage and quality of public goods and services, due to high fixed costs and a lack of economies of scale (World Bank, 2011a, 2023; Utz, 2021). They also result in a narrow revenue base. Combined, these characteristics result in structural fiscal deficits (World Bank, 2016). Traditionally, these structural gaps have been financed by grants and concessional loans from development partners (Figure 1.3).

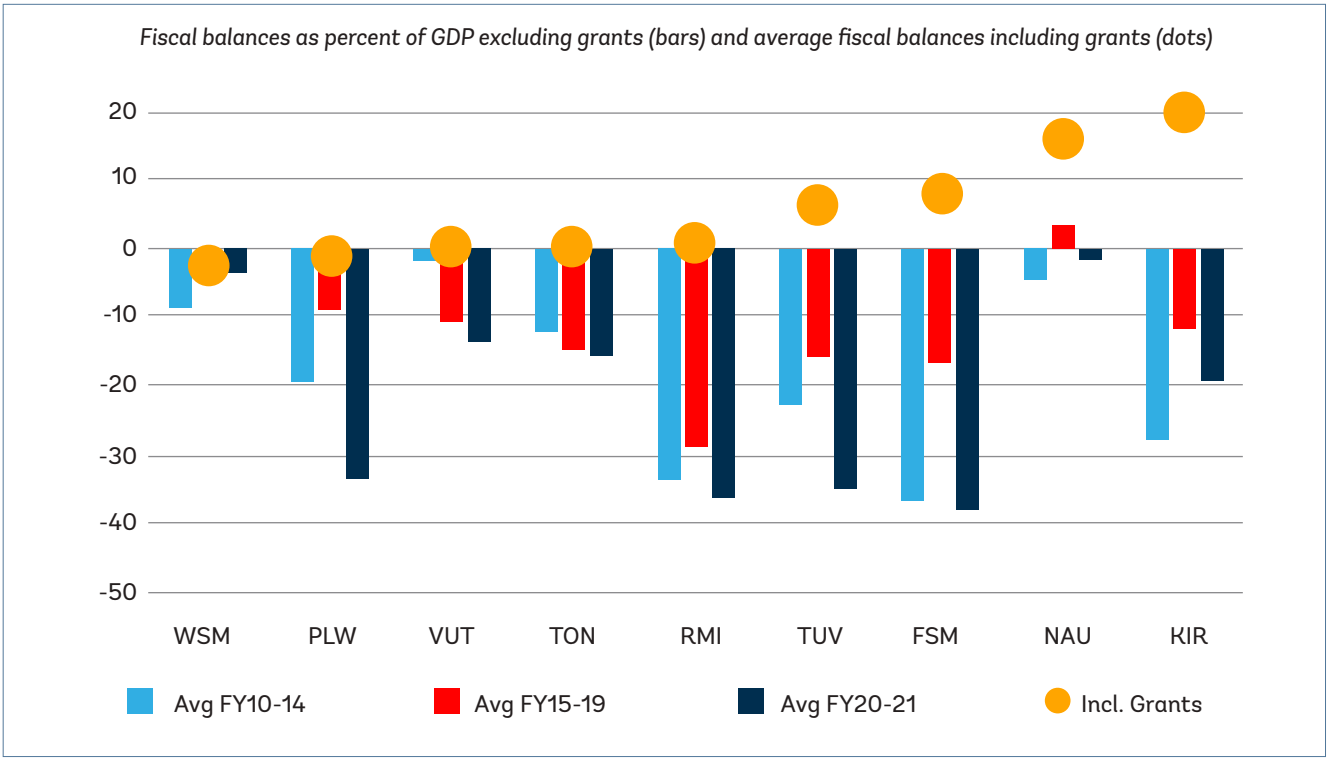
Figure 1.2: The PIC-9 are among the smallest and most remote countries in the world



Source: WDI and Centre d'Etudes Prospectives et d'Informations Internationales (CEPII).

1. This is not to downplay the importance of institutions as the key determinant of long-run economic outcomes. See for example, Acemoglu et al., 2002 and Rodrik et al., 2004.

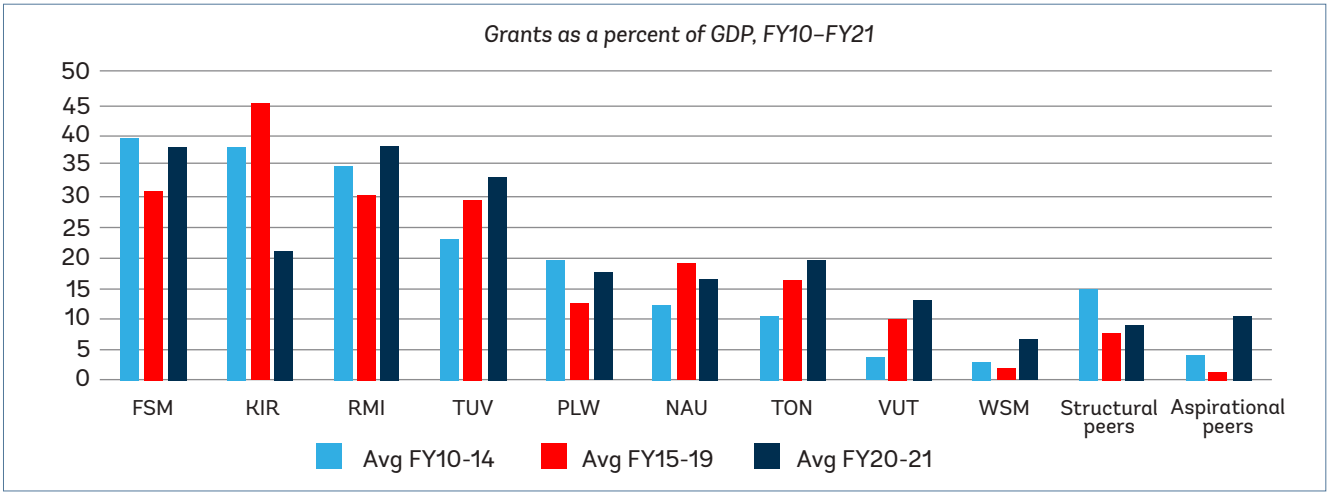
Figure 1.3: The PIC-9 have structural fiscal deficits that are financed by grants



Source: WDI, Country national budgets and World Bank staff calculations.

The PIC-9 are among the most aid dependent countries in the world. All nine countries are among the top 13 countries in the world in terms of net aid flows per capita, and grants as a percent of GDP are much higher than peer countries and other small states (Figure 1.4). This aid dependence is structural, with the PIC-9 consistently ranking among the top aid recipients over the past 30 years. Aid dependence has also increased in several of the PIC-9 in recent years reflecting two factors: (i) an increased supply of aid due to heightened geopolitical interest in the Pacific; and (ii) downgrades in debt sustainability ratings for some countries, resulting in a higher proportion of donor financing being provided on grant terms (rather than concessional loans). Figure 1.4 also highlights the sharp increase in aid to most of the PIC-9 to help respond to the COVID-19 shock.

Figure 1.4: Aid dependence is structural and has increased in recent years in several countries



Note: The graph presents data for FY10–FY14 and FY15–FY19 to highlight the change in the 'structural' level of aid in the region over the past decade, while the data for FY20–FY21 highlight the large temporary increase in grants due to COVID-19. Stuctural and Aspirational peers data are until FY20.
Source: WDI, country national budgets, and World Bank staff calculations.

The PIC-9 are also highly vulnerable to climate change and external shocks. The Pacific is one of the world's most disaster-prone regions,[2] and among the most exposed to sea-level rise.[3] Natural disasters often have large human, economic, and social costs, and the affected country can take years to recover.[4] COVID-19 has also highlighted the region's exposure to health hazards, which can have extensive economic, social, and fiscal impacts.[5] Finally, as small, open economies reliant on imports for most of their food, fuel, and merchandize goods, the PIC-9 are also highly susceptible to swings in global commodity prices. For example, higher global commodity prices due to the war on Ukraine have translated into higher import bills, public spending, and inflation, with inflation hitting double digits in 2022 in several of the PIC-9.

Consequently, natural disasters and aid flows are two key factors that drive growth and fiscal policy in the PIC-9. Rather than being underpinned by a business cycle, PIC-9 economies are often driven by a 'natural disaster cycle' and an 'aid cycle' (World Bank, 2018). The natural disaster cycle begins when a natural disaster strikes, causing widespread damage and economic losses that precipitate a sharp economic contraction, large revenue losses, and spending pressures to address post-disaster relief efforts. This is followed by a gradual process of reconstruction and recovery that boosts growth over the following two to five years, depending on the severity of the disaster. This recovery phase is generally financed to a large degree by public spending and additional development partner grants. With the projected increase in intensity of natural disasters in the Pacific, these economic and social impacts are expected to worsen. A second key driver of PIC-9 economies is donor-funded infrastructure projects.

2. Based on estimated annualized expected losses (as a share of GDP) due to natural disasters, eight of the PIC-9 are among the top 30 most disaster-prone countries in the world (World Bank, 2012).
3. For example, most of the land mass of Kiribati, RMI, and Tuvalu is less than two meters above sea level.
4. For example, from 2014–2022, several of the PIC-9 were hit by major Tropical Cyclones Ian, Pam, Gita, and Harold, and the eruption of the Hunga Tonga-Hunga Ha'apai volcano and tsunami, causing damages and losses equivalent to 11–64 percent of GDP.Other recent examples include Samoa's measles outbreak in 2019–20 and RMI's dengue outbreak in 2019.
5. Other recent examples include Samoa's measles outbreak in 2019–20 and RMI's dengue outbreak in 2019.

This aid cycle is most evident in the North Pacific nations (FSM, RMI, and Palau), where the Compact of Free Association (COFA) with the US provides annual grants focused on infrastructure, education, and health services in exchange for full international defense authority and responsibilities. Periods of weak and strong growth in these countries generally reflect delays or accelerations in COFA disbursements. The aid cycle is also evident in the other PICs. The unprecedented increase in grants to address the health, economic, and social impacts of COVID-19 is the most vivid recent example, along with additional grants to support the recovery from the volcanic eruption and tsunami in Tonga in January 2022.[6]

The PIC-9 economies are dominated by the public sector. The PIC-9's economic geography results in very high costs of production for both the private and public sectors. It also limits the economic incentives for private sector development. This means that delivery of many core goods and services falls to the public sector. Consequently, in many PICs, the public sector accounts for over 40 percent of GDP and 30 to 75 percent of formal sector employment (World Bank, 2014, 2022). State-owned enterprises (SOEs) are active in most of the key economic sectors including energy; transport; information, communication, and technology; agriculture; and banking. The government is also the primary service provider in the education and health sectors. The quality of public service delivery is thus crucial for human capital development.

1.2.2 Despite their structural similarities, the PIC-9 also have important differences

While the PIC-9 share several structural characteristics, they also have important differences (Table 1.1). While all the PIC-9 are small by global standards, Vanuatu—with over 300,000 citizens—is around 30 times larger than Nauru and Palau. Dispersion also varies considerably, with all of Nauru's population centered on one island, while other PIC-9 countries have a low population concentration on their main island, and dozens of populated islands spread over vast Exclusive Economic Zones (EEZs). Aid dependency varies from 12–15 percent of total revenue in Samoa and Nauru, to 40–50 percent in FSM, RMI, and Tonga. In recent years, sovereign rents—mainly from selling fishing access rights in their EEZs, but also from other novel sources—have emerged as a key source of fiscal revenue in six of the PIC-9, and are increasingly a key factor driving fiscal policy in these countries. Variations in their dependence on tourism as a key source of economic activity, jobs, and tax revenue has also meant that the COVID-19 shock has had heterogenous impacts across the region. Furthermore, there are considerable differences in state capacity. For example, RMI, FSM, Tuvalu, and Kiribati are among the 20 lowest capacity states globally, according to the World Bank's 2021 Country Policy and Institutional Assessment (CPIA, which covers all World Bank International Development Association (IDA)-eligible countries). In comparison, Samoa is the second highest ranked country.[7] Finally, the level of development (proxied by GNI per capita) also varies widely—from US$2,750 in Kiribati to US$16,920 in Nauru. These differences lead to variations in the challenges and opportunities to service delivery and fiscal management.

6. See Duncan (2016) for further details on the aid cycle in Pacific nations.
7. As high-income countries, Palau and Nauru are not part of IDA, and therefore are not assessed under the CPIA.

Table 1.1: Selected key characteristics of the PIC-9

Country	Nauru	Palau	Tuvalu	RMI	Tonga	FSM	Samoa	Vanuatu	Kiribati
GNI per capita[1]	16,920	12,790	7,200	6,780	4,930	3,980	3,810	3,240	2,750
Population[2]	11,000	18,000	12,000	39,000	106,000	115,000	198,000	307,000	119,000
% living on main island[3]	100	63	57	52	73	47	77	28	44
Tourism share of GDP[4]	1	43	6	9	11	10	24	36	3
Sovereign Rents share of revenue[5]	61	7	51	23	0	34	0	27	52
of which fishing share of revenue[5]	25	7	44	19	0	23	0	1	52
Aid share of revenue[5]	12	34	26	52	44	46	15	28	23
2021 CPIA Rank[6]	N/A	N/A	56	63	23	59	2	25	53

Note: 1) 2021 current USD, Atlas method from WDI. 2) WDI and national census data. 3) Various years, based on recent census data. 4) WDI, latest year for which data is available. 5) Average FY18–FY21. 6) Out of 73 IDA countries.

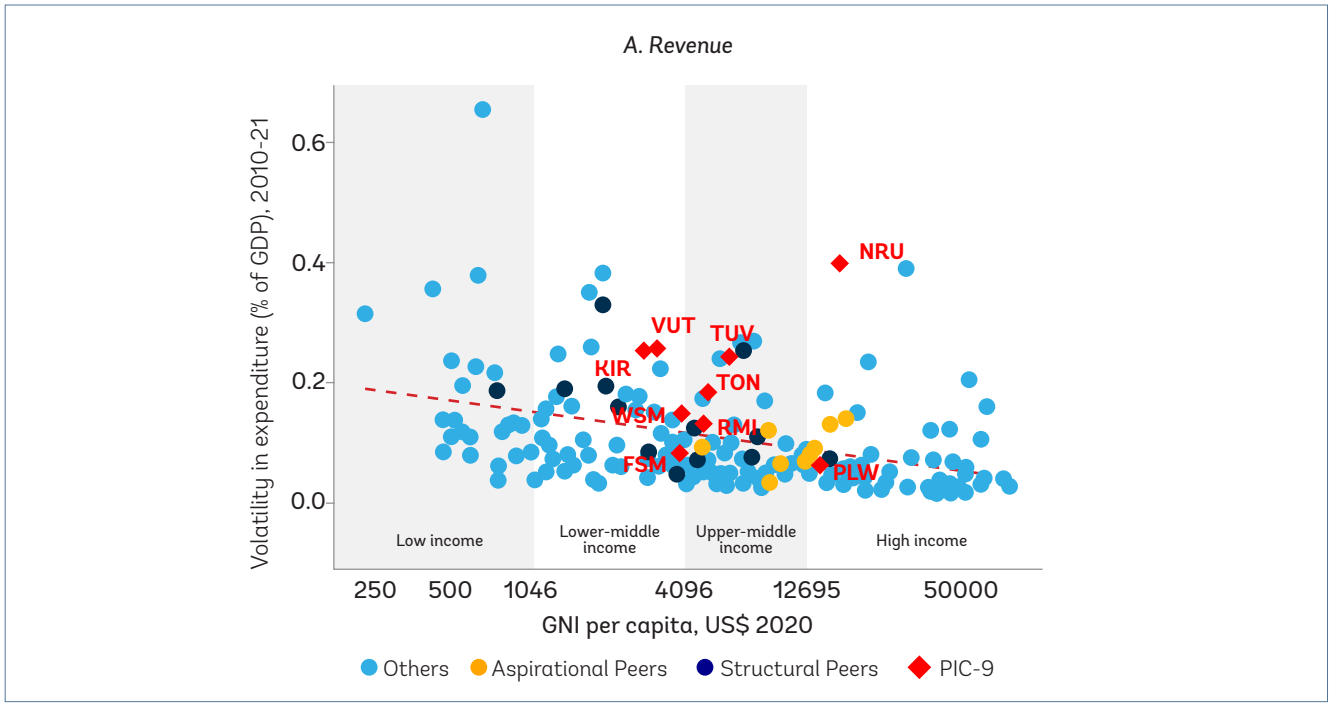
1.2.3 Fiscal policy is the key policy lever to support growth, stability, and poverty reduction

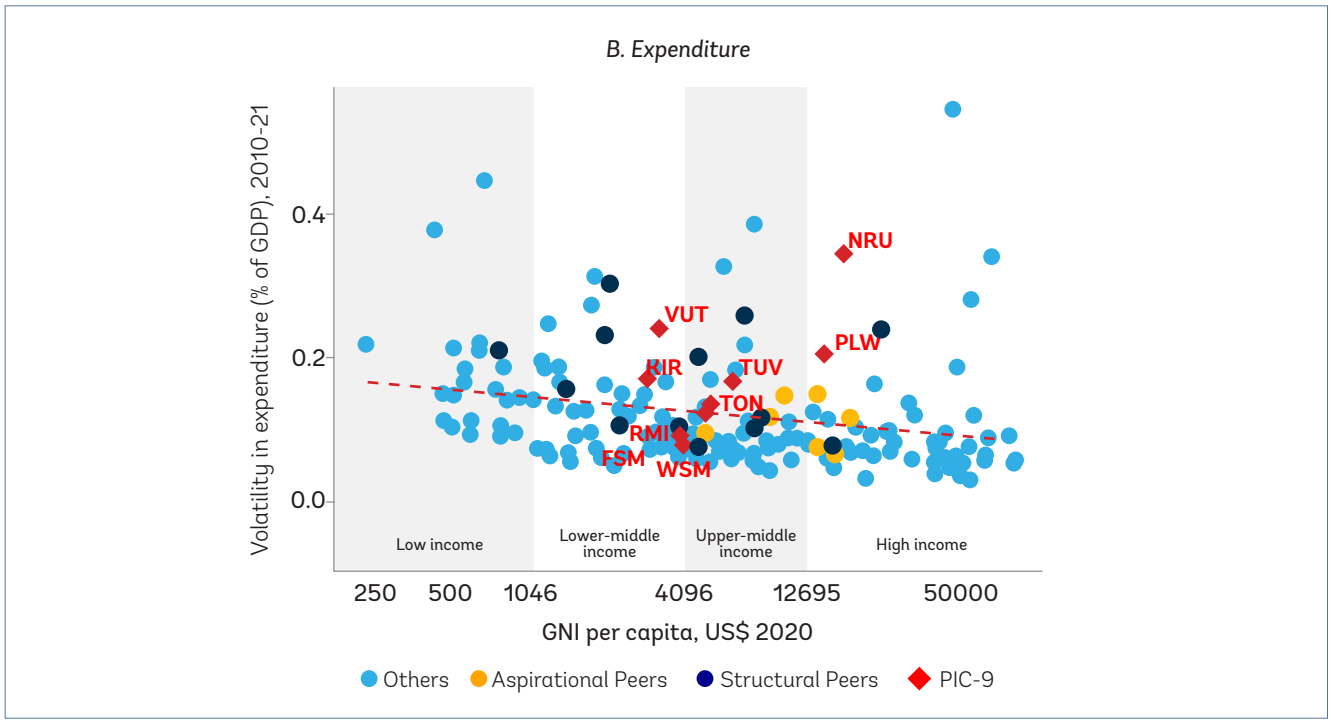
Fiscal policy is key to macroeconomic growth and stability in the region. Given its dominance in the economies, the public sector is a key supporter of economic activity and source of formal sector employment. Six of the PIC-9 countries are dollarized, while the other three have a tightly managed exchange rate, and the monetary policy transmission mechanism is weak.[8] This limits the effectiveness of monetary and exchange rate policy to respond to changing circumstances. In addition, the insurance industry is small, as frequent natural disasters lead to low or negative risk-adjusted returns. Low financial literacy also means that demand for insurance products is low. Consequently, disasters represent a significant contingent liability to governments. Fiscal policy is therefore the primary tool to address macroeconomic imbalances and shocks, and crucial for macroeconomic stability.

However, the PIC-9 face higher volatility in their revenues and spending relative to comparator countries. High volatility is driven by the PIC-9 economies' small and narrow revenue bases, their high exposure to external shocks, and their reliance on fiscal policy as the primary shock absorber. Indeed, relatively higher volatility in revenues and expenditures to some extent reflects fluctuations in spending and revenues (including development partner grants) in response to external shocks. It also reflects the reliance on sovereign rents in several PICs. The three North Pacific countries (FSM, RMI, and Palau) are the only PIC-9 countries for which volatility is below the global trend line (Figure 1.5), as a large proportion of their spending is financed by COFA grants from the US government, thereby substantially reducing both revenue and expenditure volatility. However, the expiration of large parts of the COFA grants in 2023–24 is a crucial risk to fiscal sustainability and macroeconomic stability in these countries.

8. Palau, FSM, and RMI use the US dollar, while Tuvalu, Nauru, and Kiribati use the Australian dollar. Samoa, Tonga, and Vanuatu have their own currency. These three are managed pegs against a basket of trading-partner currencies.

Figure 1.5: Revenue and expenditure volatility is high in the PIC-9





Note: Figures shows coefficient of variation for government revenues and spending.
Source: IMF WEO April 2022.

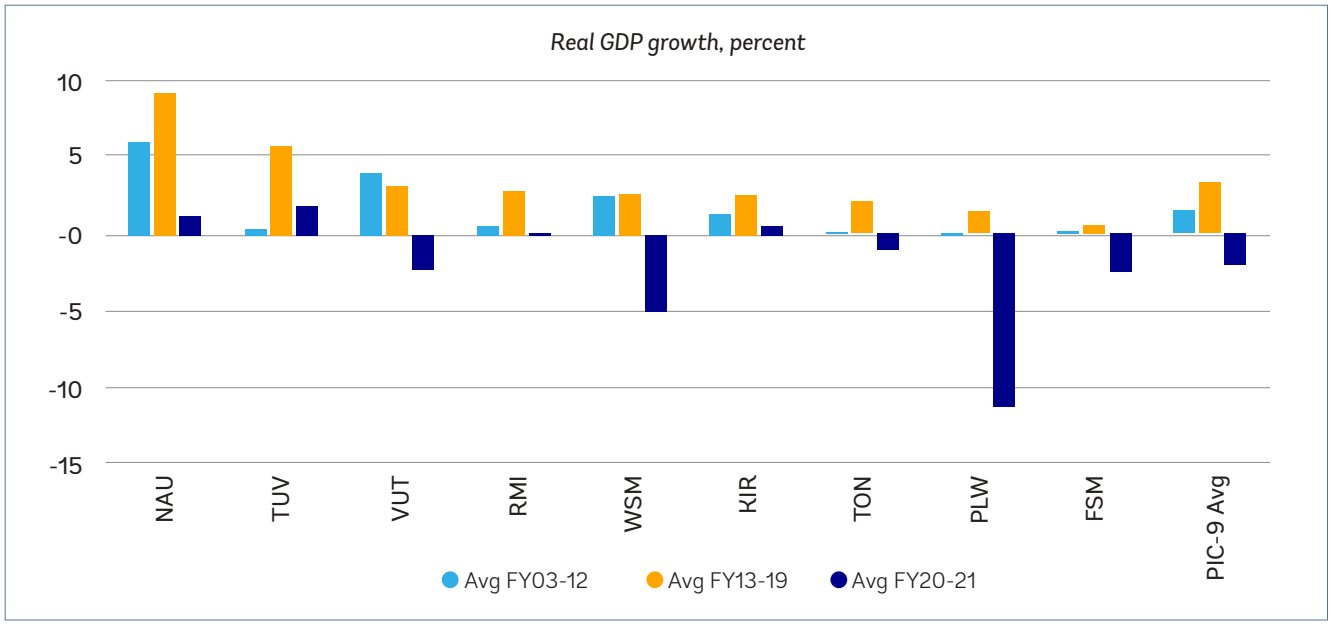
Fiscal policy is pro-poor and supports redistribution. Revenue systems across the region are generally progressive, although some remain highly distortionary and inefficient such as RMI, FSM, Tonga, and Kiribati (Chapter 2). Income tax thresholds are reasonably high, meaning that the poor do not pay income tax. Consumption taxes in several countries have zero-ratings for household utilities, staple foods, and health and education services. Micro and small enterprises are also generally excluded from paying consumption and income taxes due to relatively high business turnover thresholds above which the tax applies. Tariffs, which tend to have a regressive impact, are relatively low across the region. Many essential items are duty free, which mitigates the detrimental impact of tariffs on the poor. On the spending side, substantial fiscal resources are devoted to the public education and health systems (21 percent of GDP and 29 percent of total spending, on average). These are designed to be universal, and access has improved in recent years. Nevertheless, the wealthy and urban are more likely to have better access and higher quality public services, and highly regressive user fees still exist in some of the PIC-9 (particularly RMI, Tonga, Samoa, and Vanuatu). Nascent social protection systems across the region are broadly targeted towards the poor and vulnerable, although copra subsidies (Kiribati and RMI) and unemployment benefits (Kiribati) are highly inefficient (Chapter 5).

1.3 What mega trends have driven fiscal policy over the past decade?

1.3.1 Across the region, the overall fiscal position had improved prior to the pandemic, but the COVID-19 shock led to large deficits

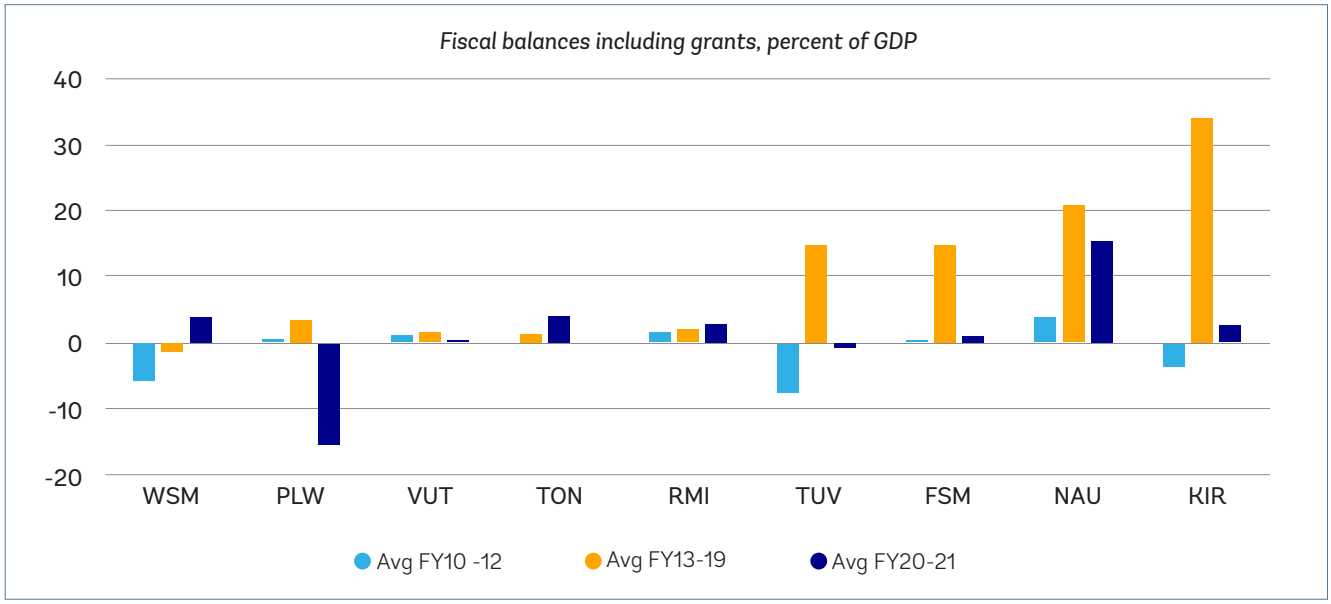
Prior to the pandemic, PIC-9 economic performance had improved, with higher growth and improved fiscal positions. From FY13–FY19, the region experienced its strongest sustained period of economic growth on record, with annual growth averaging 3.2 percent, compared to only 1.4 percent in the decade prior (FY03–FY12), and a long-run average of 1.8 percent (Figure 1.6). Fiscal outcomes also improved (Figure 1.7). Fiscal deficits (before accounting for grants) fell from an average of 21 percent of GDP in FY10–FY12 to 12 percent in FY13–FY19. Including grants, average fiscal balances went from a deficit of 1 percent of GDP in FY10–FY12 to a surplus of 10 percent of GDP in FY13–FY19.

Figure 1.6: Prior to the pandemic, growth had been relatively strong…



Source: IMF WEO October 2022.

Figure 1.7: …and fiscal outcomes had improved



Source: WDI, Country national budgets and World Bank staff calculations.

COVID-19-related border closures and natural disasters led to deep and protracted recessions across most of the PIC-9 economies in FY20–FY21. Over two years of strict travel restrictions slashed tourism exports, disrupted temporary worker programs and goods exports, and increased the cost of imports. Domestic lockdowns led to business closures and curtailed construction activity. In Tonga, Samoa, and Vanuatu, these impacts were compounded by natural disasters, which caused significant damage to housing, infrastructure, and crops.[9] More recently, outbreaks of COVID-19 in many of the PIC-9 and higher global commodity prices due to the war on Ukraine have further buffeted the PIC-9 economies. Consequently, economic output across most of the region is not expected to recover to pre-pandemic levels until at least 2023. The economic downturn is expected to create long-term economic scarring—particularly in the more tourism-dependent economies (Palau, Vanuatu, and Samoa)—as lost firms and jobs create adverse structural changes that are unlikely to be reversed when aggregate demand recovers.

The authorities responded with substantial stimulus, resulting in fiscal deficits. The economic downturn led to large shortfalls in domestic revenues, combined with additional spending to support health-sector preparedness, vaccine rollout, and to mitigate the economic impacts on households and businesses. Averaging over 15 percent of GDP, the COVID 19 fiscal response packages implemented by the PIC-9 were among the highest in the world (Box 1.1). In Tonga and Vanuatu, authorities also had to create fiscal space for disaster response and recovery. This resulted in an expansion in the fiscal deficit (before accounting for grants) to an average of 22 percent of GDP in FY20–FY21.

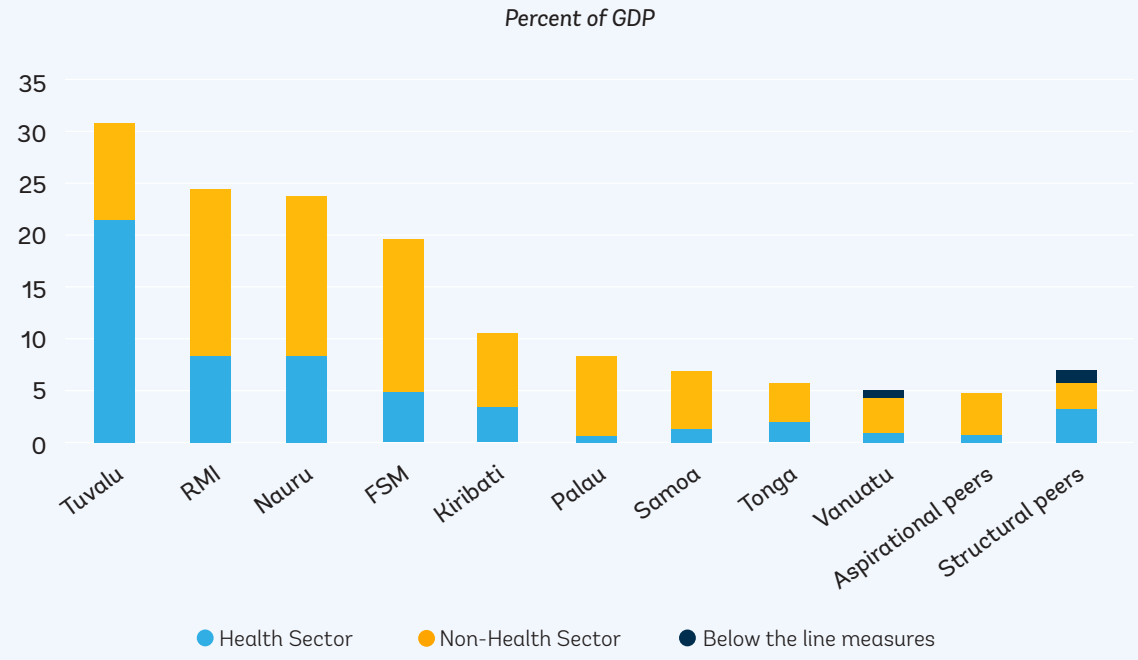
Box 1.1: PIC-9 Fiscal measures in response to COVID-19

PIC-9 governments undertook significant fiscal stimulus measures to mitigate the economic impact of the pandemic. On average, the PIC-9 governments spent about 15 percent of GDP between January 2020 and September 2021. More than half of the spending (9.3 percent of GDP) was on non-health related measures which included economic support to households and businesses. Spending on health-related measures (5.6 percent of GDP) included spending to: boost health infrastructure to support early detection and prevention of COVID-19; ramp up quarantine facilities; provide clinical management of patients; and finance the vaccine rollout.

9. In April 2020, Tropical Cyclone Harold struck Tonga and Vanuatu, causing damages and losses estimated to be equivalent to 11–25 percent of GDP. In January 2022, the Hunga Tonga-Hunga Ha'apai volcano eruption and tsunami that struck Tonga caused damages and losses estimated to be equivalent to 36 percent of GDP.

The size of the fiscal measures varied significantly across the PIC-9 but in most cases was above the average for both structural and aspirational peers (Figure 1.8). The largest fiscal responses—equivalent to 10–30 percent of GDP—were seen in the smallest PIC-9 countries and in those nations that benefited from elevated fishing revenues prior to the pandemic (Tuvalu, Nauru, RMI, FSM, and Kiribati). Across the Pacific, but particularly in these countries, substantial spending was required for new quarantine facilities, laboratories, cold chain and vaccine storage facilities, medical equipment, as well as additional staff and overtime. RMI, FSM and Palau also benefited from substantial support via the US Government's Coronavirus Aid, Relief, and Economic Security (CARES) Act 2020, which provided unemployment payments to affected workers as part of these countries' COFA with the US. However, the unprecedented scale of the economic and fiscal crisis in Palau—with GDP and domestic revenues falling by 20 and 22 percent from FY19 to FY21—meant that the Palauan authorities had much less fiscal space to respond than their COFA neighbors. Stimulus spending in Tonga, Samoa, and Vanuatu was the lowest among the PIC-9 but was still equal to or above the average fiscal response in structural and aspirational peer countries.

Figure 1.8: The size of the COVID-19 stimulus varied across the PIC-9, but was generally much larger than in peer countries



Source: IMF Fiscal Monitor, country national budgets, and World Bank staff estimates.

COVID-19 stimulus to households was largely directed through cash transfers and reduced utility costs, and to businesses through loan forbearance and subsidized loans (Table 1.2). All the PIC-9 countries except RMI and Nauru introduced some form of cash transfers to support households. All seven governments targeted these cash transfers to vulnerable groups (including the poor, elderly, and beneficiaries of conditional cash transfer programs) and citizens stranded overseas. In Tuvalu, cash payments were made to all adult citizens for two months before targeting was introduced. In RMI, transfers to households were in-kind through the provision of food baskets, fishing gear and farming tools. In Nauru, public works programs were the primary mechanism to support households. Several of the PIC-9 also reduced electricity and water tariffs, lowered regulated prices of essential food items, and waived or subsidized social security contributions. Support to businesses was largely provided through loan forbearance as well as additional loans at subsidized rates. Although there were also several instances of cash injections, tax deferrals and waivers, and loan guarantees. Most measures used existing mechanisms (such as loan and cash transfer programs), and previously utilized channels (such as tax relief/deferments, the social security system, and public institutions). However, there were also examples of innovative new mechanisms established in response to the shocks, including wage subsidies and public works programs. Almost all the measures were time-bound (unemployment benefits in Kiribati and higher copra subsidies in RMI and Kiribati were the exceptions). In general, direct cash support to households and firms was very short term (often only a few months). Measures that provided tax relief, payment deferments, and access to credit, had much longer horizons (several months to two years).

Table 1.2: Summary of key fiscal measures to support households and firms in the PIC-9

Category	Specific Measure	KIR	NRU	RMI	FSM	PLW	WSM	TON	TUV	VUT
Social Assistance	Cash-based transfers	✓		✓	✓	✓	✓	✓	✓	✓
	Public Works		✓			✓				
	In-kind (in-kind/school feeding)			✓		✓				
	Utility and financial support			✓	✓	✓	✓	✓	✓	✓
Social Insurance	Paid leave/unemployment	✓			✓	✓	✓			
	Health insurance support									
	Pensions and disability benefits						✓			✓
	Social security contributions (waiver/ subsidy)	✓					✓	✓	✓	

Category	Specific Measure	KIR	NRU	RMI	FSM	PLW	WSM	TON	TUV	VUT
Labor Market	Wage subsidy							✓		✓
	Activation (training)						✓			
	Labor regulation assessment									
	Reduced work time subsidy									
Firms	Tax deferrals/relief			✓		✓	✓			✓
	Loan forbearance/relief	✓			✓	✓	✓	✓	✓	✓
	Credit creation/subsidized loans					✓	✓	✓	✓	✓
	Cash-based liquidity		✓	✓				✓		✓
	Guarantees		✓							✓

Source: Gentilini et al., 2022 and World Bank staff summary based on national budget documents.

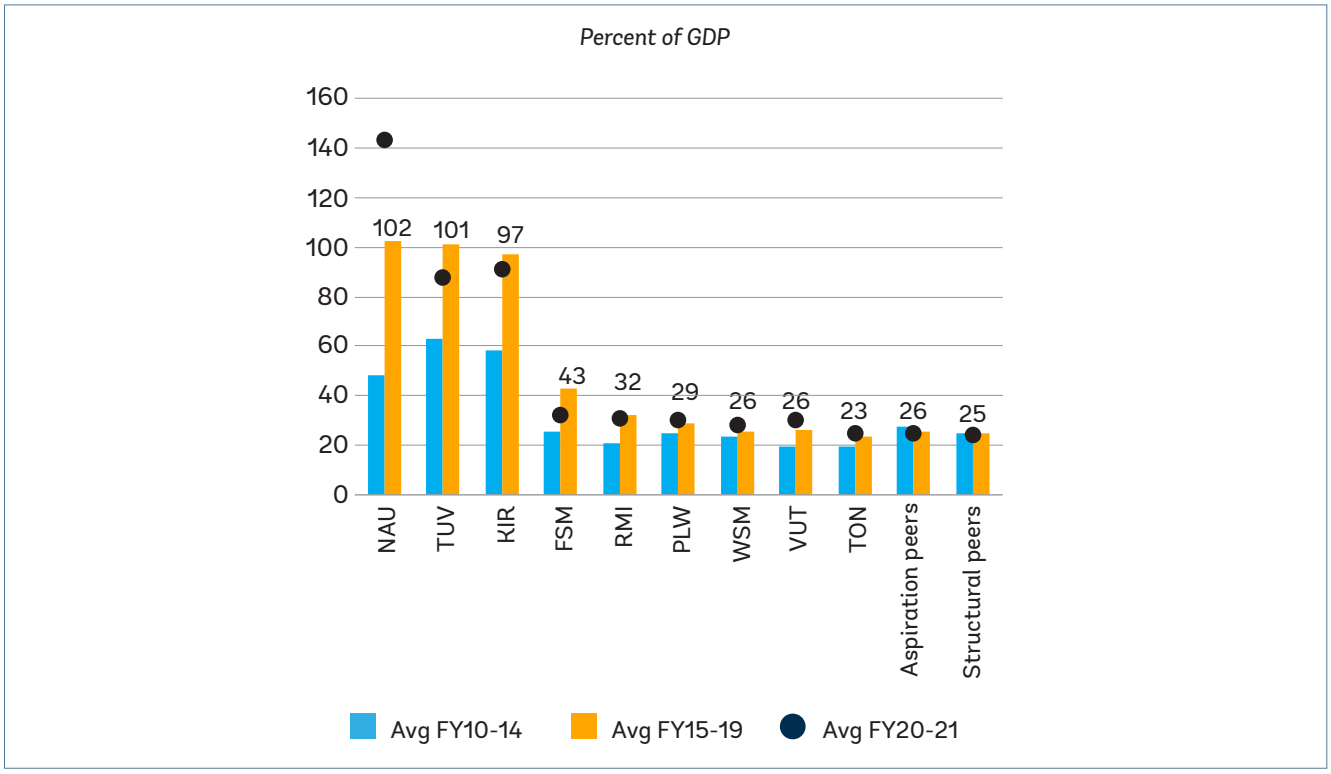
The fiscal packages were financed from a variety of sources including development grants, sovereign rents, reprioritization of spending, cash reserves, and domestic and external debt. Most of the PIC-9 (except Palau and Nauru which are high-income countries) received additional grants from development partners such as the World Bank, IMF, Australia, New Zealand, the US, and the EU. Samoa, Tonga, and Vanuatu also benefited from the Debt Service Suspension Initiative (DSSI) from May 2020 to Dec 2021, which created fiscal space to finance the fiscal response. In countries with substantial sovereign rents (Kiribati, RMI, FSM, Tuvalu, Nauru, Vanuatu)—which generally remained robust during the pandemic—the measures were partially financed by these rents. Development assistance also included donations of vaccines and health equipment from the COVID-19 Vaccines Global Access (COVAX) initiative and bilateral partners. FSM, RMI, and Palau benefited from access to the US Federal Government's CARES Act and vaccine program.

Additional fiscal measures were introduced in 2022 following the Omicron outbreak and the war on Ukraine. Most of the PIC-9 managed to avoid COVID-19 outbreaks until 2022. However, cases increased exponentially in the region with outbreaks of the Omicron variant in Kiribati, Palau, Tonga, FSM, and RMI in 2022. This was compounded by the rising cost of living, as higher global commodity prices due to the war on Ukraine pushed up import prices. In response, several of the PIC-9 introduced further fiscal measures to support additional health spending and limited support to households and businesses, utilizing the same mechanisms used in 2020 and 2021. In Kiribati, this included a doubling of the copra price paid to producers, from $A 2 to $A 4/kg, in early 2022.

1.3.2 In six of the PIC-9, domestic revenues rose sharply due to higher sovereign rents, though the region remains dependent on aid

As a share of GDP, domestic revenues in the PIC-9 are broadly in line with revenues in peer countries and nations at a similar stage of development (Figure 1.9). The outliers are Nauru, Tuvalu, and Kiribati, due largely to the important role of sovereign rents in these countries. Domestic revenue as a share of GDP in the other six PIC-9 countries is similar to peer countries, although there are large differences in composition. For example, FSM and RMI also benefit from sizeable sovereign rents. These mask underlying weaknesses in tax collection, which has remained stagnant at 12–15 percent of GDP for the past decade.[10] In contrast, domestic revenue as a share of GDP in Tonga was slightly below the cross-country benchmarks prior to the pandemic (though Tonga and Samoa are the only two PIC-9 countries that do not benefit from sovereign rents).

Figure 1.9: Domestic revenues are similar or higher than peer countries



Source: World Bank Fiscal Database for PERs.

The tax structure in the PIC-9 differs from comparator countries, with the majority of tax revenues collected via indirect taxes (consumption and trade) and a low proportion of direct taxes. Across the region, general consumption taxes (also known as value-added tax (VAT) and goods and services tax (GST)), import duties, and excise duties are the mainstay of the domestic revenue system. This reflects both the structure of the Pacific economies, which are highly trade-dependent with limited domestic value added, and historically limited direct tax compliance capacity. Despite the reliance on indirect taxation, weaknesses in policy design and

10. For the FSM, this refers to tax revenues excluding large one-off tax payments from the captive insurance industry.

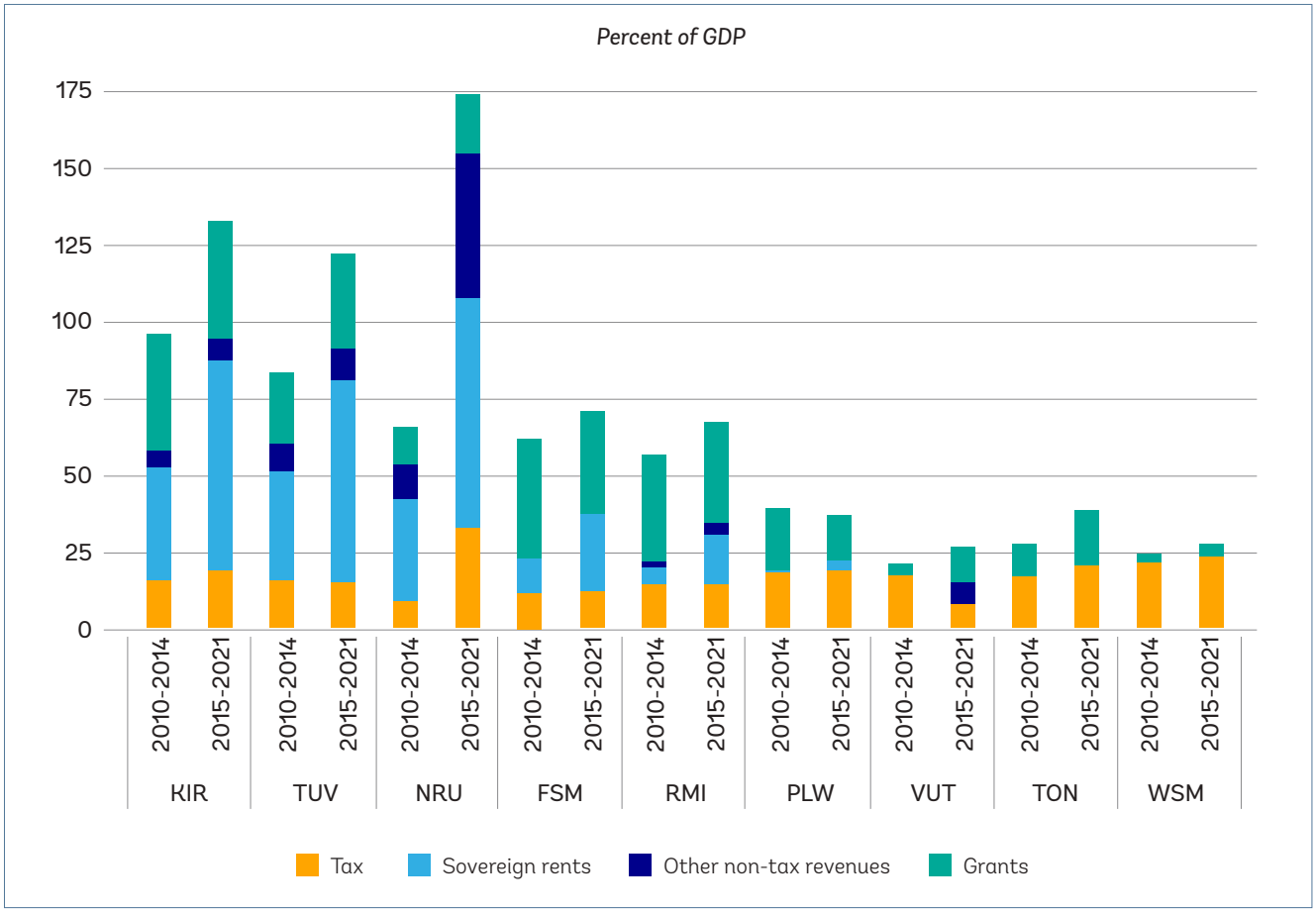
compliance management mean the PIC-9 countries are missing out on a large share of additional revenue from these taxes. For example, while the VAT is the largest contributor to tax revenue in most PICs that have a VAT (Kiribati, Tonga, Samoa, Vanuatu), costly VAT exemptions, high VAT thresholds, and VAT noncompliance are all contributing to significant amounts of revenue foregone in these countries. Reliance on trade taxes varies from Kiribati—which does not levy these taxes (having replaced them with a VAT in 2014)—to Palau, where over one-third of tax revenue is raised through taxes on international trade. However, the reliance on tariffs by Palau and others will fall with the implementation of the PACER Plus free trade agreement, which will remove tariffs on goods traded within the region, including Australia and New Zealand.[11] Stronger use of health taxes, including on tobacco, alcohol, and sugar-sweetened beverages, can offset this falling trade revenue. Direct taxation, particularly the corporate income tax (CIT), is not a significant revenue source in most of the PIC-9. Contributing factors to this include the small size of the formal sector (and even smaller size of the private sector), the existence of extensive CIT exemptions, and weaknesses in compliance management (see Chapter 2 for a detailed discussion of the PIC-9 tax systems).[12]

In recent years, the revenue mix in six of the PIC-9 has changed significantly, due to the emergence of sovereign rents as a key source of revenue (Figure 1.10). Fishing license revenues have risen exponentially since 2014 for members of the Parties to the Nauru Agreement (PNA) cap-and-trade Vessel Day Scheme (VDS)—Kiribati, FSM, RMI, Tuvalu, and Palau. In Kiribati and Tuvalu, these rents account for 50–80 percent of domestic revenues and GDP. They are also significant in FSM, RMI, and Nauru, accounting for 30–50 percent of revenues, and 12–30 percent of GDP. Aside from fishing revenues, several of the PIC-9 have found other novel ways to generate additional domestic revenues. In Vanuatu, revenue from the Economic Citizenship Program (ECP)—that offers passports in return for investment—rose from 4 percent of GDP in FY16 to 14 percent in FY20. In Tuvalu, '.tv' internet domain licensing fees accounted for around 11 percent of domestic revenues and 10 percent of GDP between FY16–FY21. In Nauru, Australian Government funding of the Regional Processing Centre (RPC) accounts for more than one-third of domestic revenue. In RMI, income from offshore corporate and ship registries generates around 10 percent of domestic revenues (3 percent of GDP). In FSM, corporate income tax receipts from the captive insurance industry are extremely volatile—with one-off payments in FY14, FY17, and FY18 generating 9 percent, 6 percent, and 19 percent of GDP, respectively. Countries with access to substantial non-tax revenues generally raise a lower amount of revenue through taxation, exposing them to greater revenue volatility (Figure 1.11). The opportunities and risks associated with these sovereign rents are explored in Chapter 2.

11. PACER Plus is a free trade agreement between Australia, Cook Islands, Kiribati, Nauru, New Zealand, Niue, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. It entered into force on December 13, 2020.

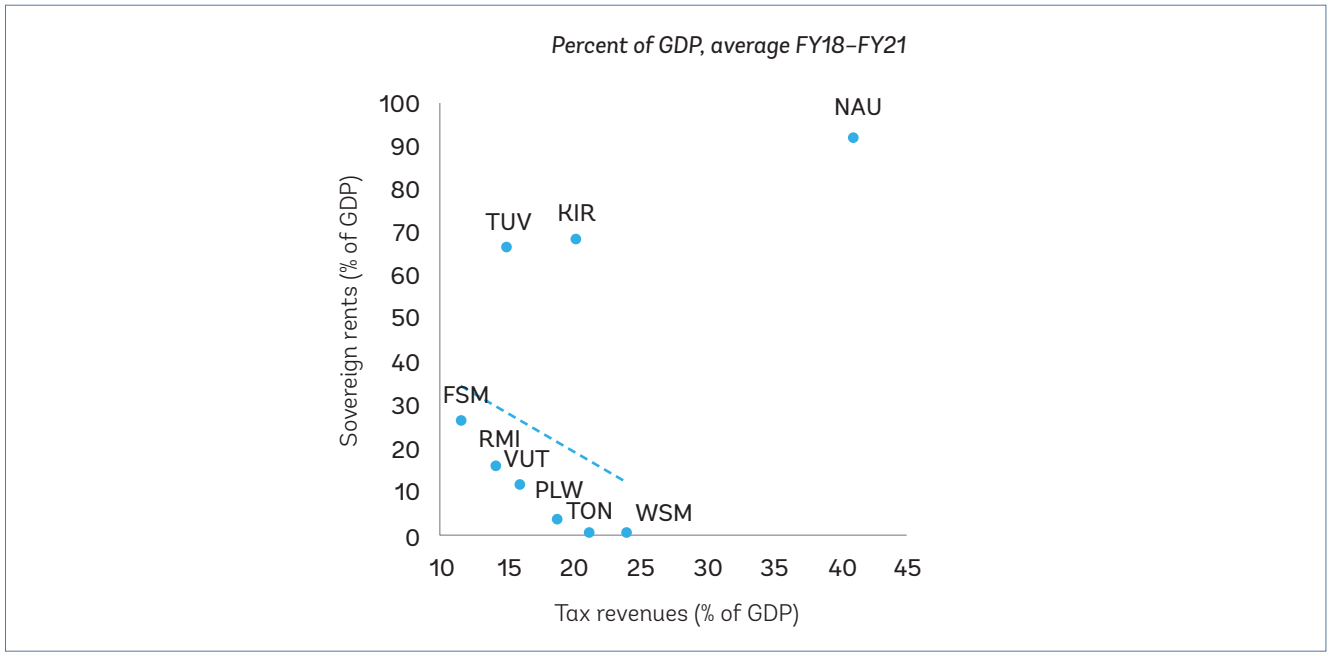
12. Again, this excludes large one-off tax payments from the captive insurance industry in the FSM.

Figure 1.10: Booming sovereign rents have changed the revenue structure in several PICs



Source: WDI, Country national budgets and World Bank staff calculations.

Figure 1.11: There is a strong negative correlation between sovereign rents and tax revenues



Source: WDI, Country national budgets and World Bank staff calculations.

Despite the increase in sovereign rents in six countries, the PIC-9 remain among the most aid-dependent countries in the world, and aid dependence has increased in recent years. As highlighted in Figure 1.4, all nine countries are among the top 13 countries in the world in terms of net aid flows per capita, and grants as a percent of GDP are much higher than peer countries and other small states. However, there is considerable variation across the region, with Samoa and Nauru receiving grants equivalent to around 15 percent of total spending, while in FSM and RMI, over half of total expenditure is financed by grants (Figure 1.19). The smaller and less wealthy PICs tend to benefit proportionally more from grants. This can be largely attributed to weaker capacity and elevated costs associated with the difficulty of realizing economies of scale in public administration in smaller states.[13] A key implication of the PIC-9's structural aid dependence and limited capacity is the need to ensure that aid financing is channeled through government systems and the budget process, and that financing is complemented by sustained capacity support (and in some cases, capacity substitution), rather than short-term capacity building.

In the North Pacific, the historical relationship between the US is an important driver of the large share of grants. As a legacy of post-WWII territorial arrangements, the COFA countries are parties to agreements with the US that provide generous levels of financial assistance through to 2023 (RMI and FSM) and 2024 (Palau), when current COFA-related financial assistance is scheduled to expire. US grants to these countries account for 70–90 percent of total grant flows. As a result, these countries have among the highest aid-to-GDP shares in the Pacific.

Prior to the pandemic, domestic revenue increased significantly across the PIC-9. This was due to two factors: (i) the exponential rise in sovereign rents (fishing revenues, in particular); and (ii) efforts to improve domestic revenue mobilization in some PICs. Regarding the latter, several countries have made good progress in consumption tax reforms over the last decade. Kiribati introduced a GST in 2014 and since then, GST has become the largest share of tax revenue. In Samoa and Tonga, a combination of tax policy reform and improved administration and compliance over several years resulted in an increase in domestic revenues of 6–7 percent of GDP.[14] In Nauru, tax revenue increased by over 30 percent of GDP from FY14 to FY20, due to the introduction of the business tax in 2016 and an increase in the rate and coverage of the employment and services tax in 2018 and 2020. In Samoa, Tonga, and Vanuatu, this was accompanied by an increase in grants, due to a downgrade in the countries' debt sustainability risk rating, resulting in an increase in the proportion of development partner funds that were provided on grant terms (as opposed to concessional loans).

13. An alternative 'supply-side' explanation for this phenomenon is that: (i) donors prefer to operate in more rather than fewer countries; and (ii) development partner assistance in any given country is also subject to fixed costs and scale economies, such that the dollar value of grants provided to any given country is subject to a minimum lower bound. For a given development partner, (i) and (ii) combined tend to result in grants per recipient country exhibiting less variation than recipient country GDP or population (Dornan, 2016).

14. This included: increasing the fuel excise rate; 'sin taxes' on unhealthy foods, beverages and cigarettes; the introduction of large taxpayer units and electronic tax invoice monitoring systems; and modernized tax and customs application, clearance, and payment processes.

The pandemic led to a substantial decline in domestic revenues. However, revenues for most PICs were less significantly impacted by COVID-19 than was anticipated early in the pandemic and compared to the global trend. The reliance on indirect taxes at the border over direct taxes may have contributed to this outcome, given that imports have remained relatively stable. Nevertheless, domestic revenues in FY21 were 15–30 percent lower than pre-pandemic levels in Palau, Nauru, Kiribati, and Vanuatu, with smaller declines in the other PICs. In those PIC-9 with a greater dependence on tourism, the revenue decline was driven by lower tax collections (Palau, Vanuatu, Samoa, Tonga), particularly consumption and income tax receipts, consistent with lower domestic economic activity.[15] However, resilient remittances mitigated the decline in consumption tax receipts in Samoa and Tonga, as remittances supported household spending despite the impact of the pandemic on incomes. The other five PIC-9 countries have smaller tourism industries but are more reliant on fishing revenues. In this second group, fishing revenues declined as COVID-19-related border restrictions disrupted fishing operations, dampening demand for fishing access rights.

Development partner support increased to unprecedented levels in response to the shortfall in domestic revenue and to finance the fiscal response to the pandemic. Across the region, grants rose from an average of 30 percent of total revenues in FY15–FY19 to 33 percent in FY20–21. In some countries, the increase was far larger. Grants (by value) tripled in Samoa, and nearly doubled in RMI and Vanuatu between FY19 and FY21. In Palau, development partners provided highly concessional loans equivalent to almost 30 percent of pre-COVID-19 GDP in FY20–21. The substantial increase in aid (and concessional loans to Palau) allowed PIC-9 governments to finance the fiscal response to COVID-19 (and concurrent natural disasters in Vanuatu and Tonga) without the need to seek large amounts of new debt (or non-concessional debt, in the case of Palau). The development partner response was thus similar to past episodes of natural disasters, consistent with the natural disaster cycle outlined earlier.[16]

As the region emerges from the pandemic, improving domestic revenue mobilization will be crucial to achieve fiscal sustainability and support a green, resilient, and inclusive recovery. Over the coming years, development partner support is likely to return to pre-crisis levels. Increasing domestic revenue collection is thus crucial to restore fiscal buffers and create fiscal space for the PIC-9 to finance their development priorities. However, this would also require the PIC-9 to outperform their peer countries and nations at similar stages of development. Given the region's limited implementation capacity, reform efforts should focus on a limited set of prioritized actions that can deliver the largest gains with existing capabilities. Chapter 2 explores options for how the PIC-9 can maximize revenue collection within these constraints.

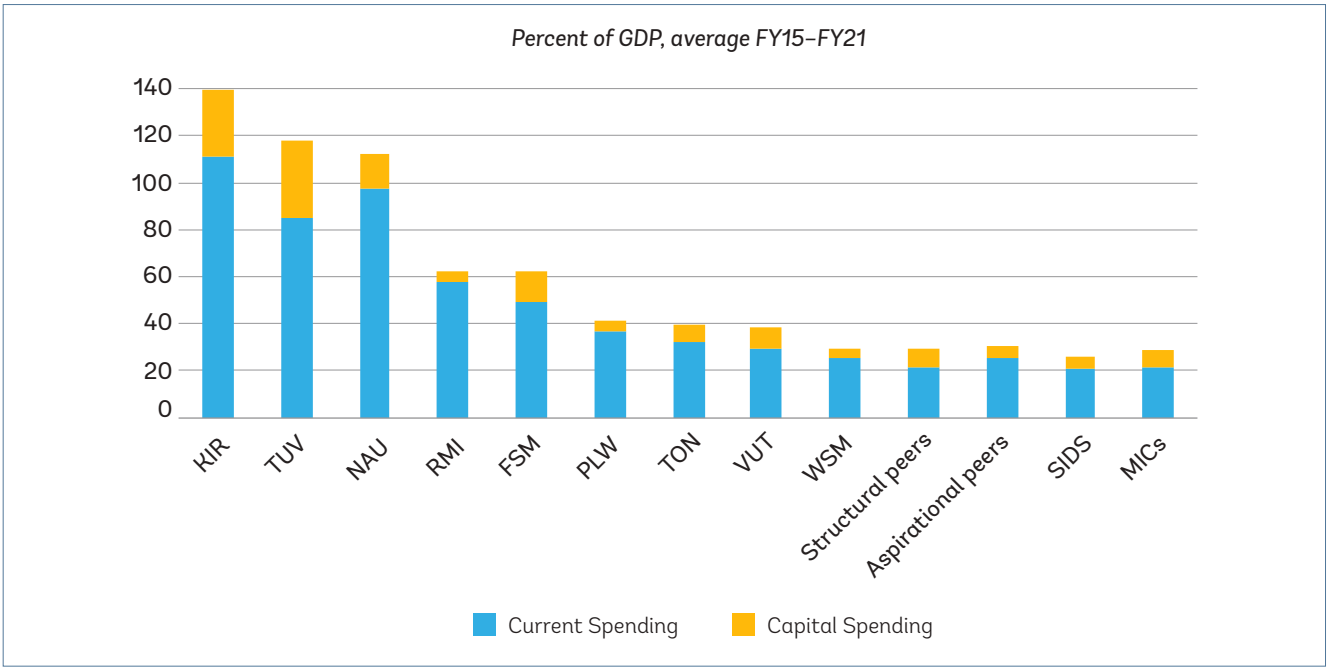
15. In Vanuatu, the decline was also due to lower revenues from the ECP.
16. This was evident in Samoa following the tsunami in 2010 and TC Evan in 2013; in Vanuatu and Tuvalu following TC Pam in 2015; and in Tonga following TC Ian in 2014 and TC Gita in 2018.

1.3.3 Public spending is higher than peers due to the region's structural characteristics

PIC-9 government spending is relatively high, even when compared to peer countries (Figure 1.12, Box 1.2). The evidence suggests that this is directly related to the PIC-9's unique economic geography, with several of the PIC-9 being too small and dispersed for their governments to take advantage of economies of scale in the provision of many services and administrative functions (World Bank, 2011a; Horscroft, 2014a, 2014b). These constraints are particularly acute in the less-inhabited outer islands (Utz, 2021). Key examples include major transport, energy, and water infrastructure; health and education services; and general public administration. The PIC-9 also face high import costs, owing primarily to their distance from major markets and shipping routes, small import volumes, and lack of competition among the few international shipping lines that do serve them (Yang et al., 2013). This further increases the cost of providing import-dependent public services, even relative to structural and aspirational peers.

The PIC-9 countries with particularly high levels of public spending are those where the effects of smallness and internal dispersion are most pronounced. Notwithstanding some fluctuations, government spending has been systematically high as a share of GDP in the very small states (Nauru, Tuvalu, Palau) and more dispersed countries (Kiribati, FSM, RMI). In comparison, Tonga, Samoa, and Vanuatu spend at levels that are closer to peer countries, MIC, and small state averages.

Figure 1.12: Public spending is higher in smaller and more dispersed PICs



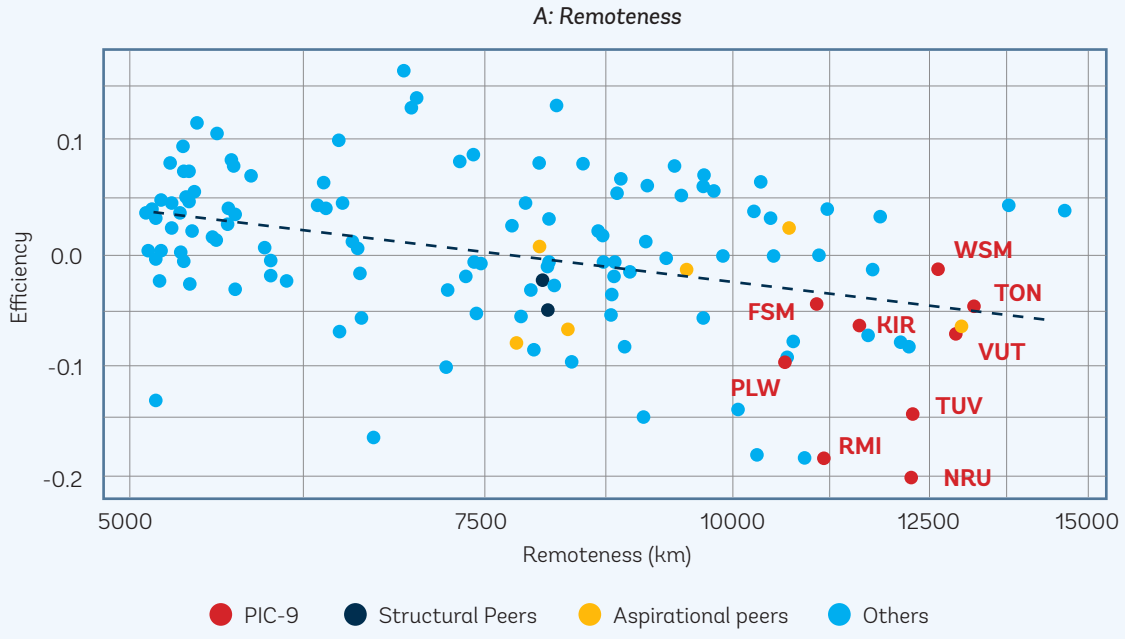
Source: World Bank Fiscal Database for PERs.

Box 1.2: Geographical constraints to public spending efficiency in the PIC-9

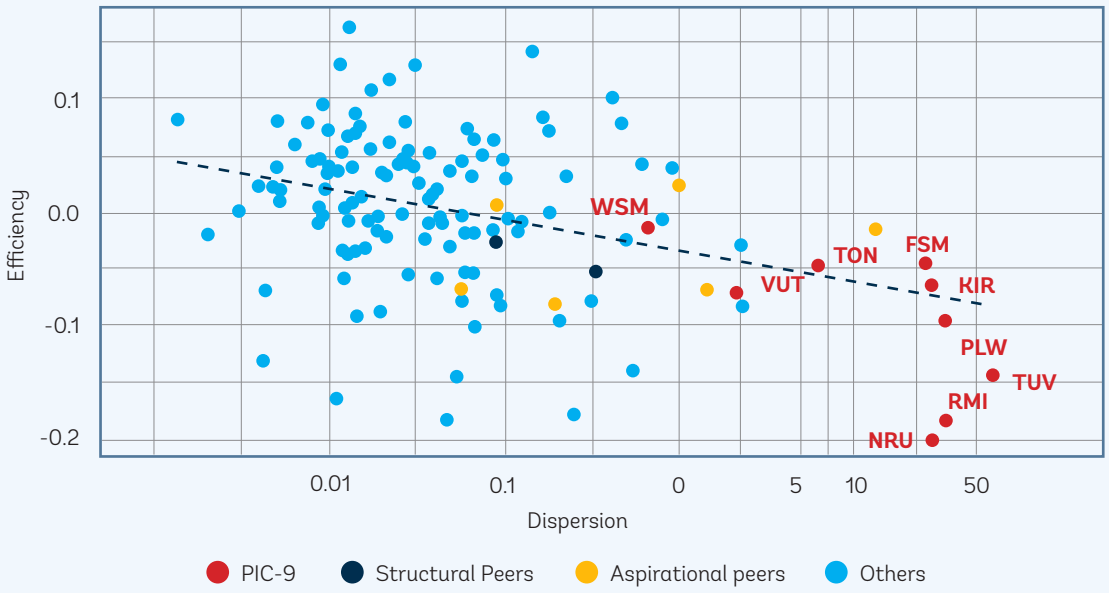
At first glance, the PIC-9 seem to have poor human capital outcomes relative to their levels of public spending per capita. Across the world, there is a strong positive relationship between human capital outcomes (proxied by the HCI) and public spending (Figure 1.1). However, providing public services such as health and education is relatively costlier in the PIC-9 because of their geographical constraints. All the PIC-9—as well as most of their structural and aspirational peers—fall below the linear regression line in Figure 1.1, suggesting that public expenditure in these geographically challenged countries tends to be associated with poorer human capital outcomes. Yet, even when compared only to their peers, the geographical challenges to spending efficiency appear to be even more acute for the PIC-9.

Simple linear regressions and graphical analysis provide further support to the claim that states with geographic constraints are associated with reduced efficiency of public expenditure. Using the distance to the regression line in Figure 1.1 as a measure of public spending efficiency, both remoteness and dispersion are seen to be negatively associated with efficiency (Panels A and B in Figure 1.13). Population size is positively associated with efficiency indicating that efficiency is lower on average for small states. Figure 1.13 suggests that after accounting for geographical constraints, Samoa and Tonga may have better human capital outcomes than expected for their levels of public spending.

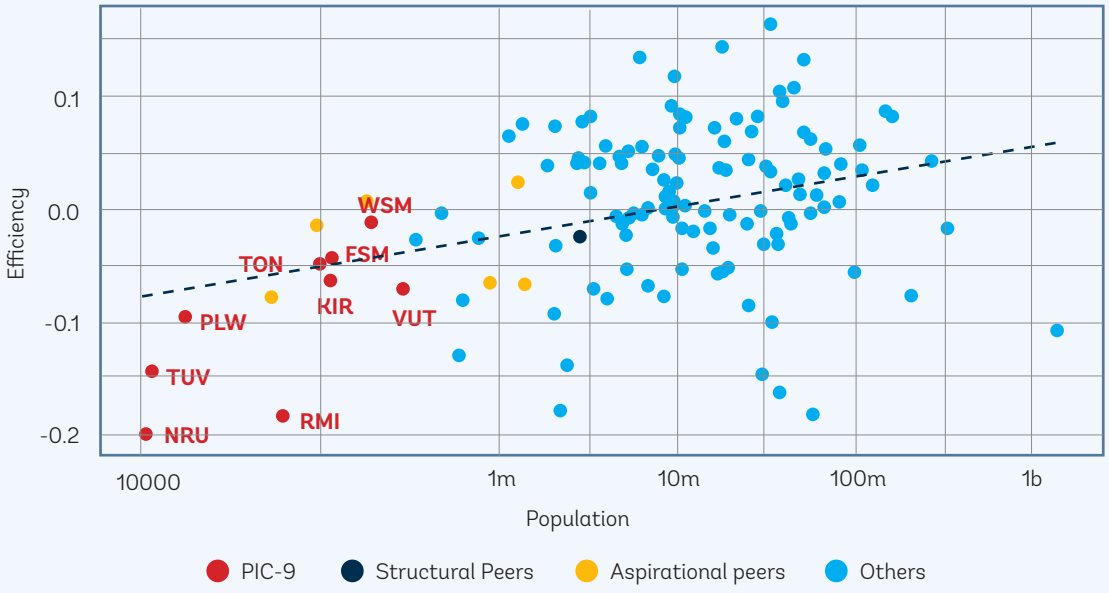
Figure 1.13: Geographic constraints are associated with reduced efficiency of public expenditure



B: Dispersion



C: Population



Note: Efficiency is the distance to the regression line in Figure 1.1.
Source: WDI and Xia et al., 2020.

Multivariate linear regression that models public spending efficiency as a function of geographical constraints supports these results (Table 1.3). To account for variation in income per capita, GDP per capita is included as a control variable. A dummy is included for those countries in the dataset that are landlocked. The analysis confirms the negative association between efficiency and remoteness. There is also a negative association between efficiency and dispersion, and a positive association between efficiency and population, suggesting that small, dispersed states have lower efficiency of public spending. The fit of the model is respectable and suggests that about one-fifth of the variation in public spending efficiency—as defined above—can be explained by geography.

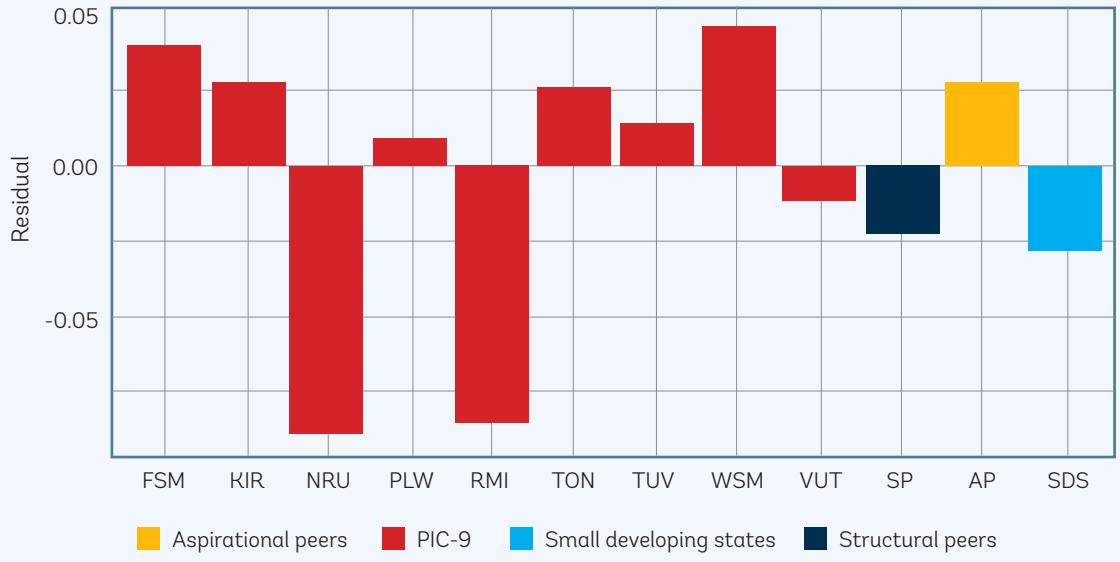
Table 1.3: Variations in public spending efficiency are explained by geography

	(1)	(2)	(3)
Log (Remoteness)	-0.080*** (0.024)	-0.080*** (0.025)	-0.074*** (0.025)
Dispersion	-0.002*** (0.001)	-0.002*** (0.001)	-0.001** (0.001)
Dispersion squared		8.57×10^{-8} (1.14×10^{-7})	5.32×10^{-8} (8.15×10^{-8})
Log (Population)			0.007** (0.003)
Log (GDP per capita)	-0.004 (0.005)	-0.003 (0.005)	-0.0008 (0.005)
Landlocked	0.006 (0.017)	0.001 (0.017)	0.001 (0.017)
Intercept	0.742*** (0.251)	0.727*** (0.251)	0.559*** (0.266)
Adjusted R squared	0.188	0.185	0.231
No. of observations	141	141	141

Note: Dependent variable is public spending efficiency (distance to trendline in Figure 1.1). Remoteness is measured as the GDP-weighted distance from world markets. Dispersion is measured as the inverse of population density. Area is calculated as the sum of total inland area and marine EEZs. Landlocked is a dummy variable equal to 1 if the country is landlocked. All values are averages for 2015–2020. *** denotes significance at 1 percent, ** at 5 percent and * at 10 percent. Standard errors are corrected for heteroskedasticity.

The model results indicate that improving human development outcomes in the PIC-9 will require either higher levels of spending, or that the countries outperform their peers in terms of public spending efficiency. For each of the PICs, we can estimate the proportion of any shortfall or outperformance in public spending efficiency that is either: (i) attributable to the geographic variables contained in the model; or (ii) unexplained by the model, that is, the residual (Figure 1.14). The residual is positive in most of the PIC-9 and higher than for structural peers and the small developing states average, suggesting that the efficiency of spending in some of the PIC-9's is slightly better than would be expected, given their geographic characteristics. Yet, Figure 1.1 and Chapters 3 and 4 show that the PIC-9's performance on human capital outcomes lags that of their structural and aspirational peers. This suggests that to achieve similar human development outcomes, the PIC-9 need to either: (i) outperform their peers in terms of public spending efficiency, to compensate for the extreme nature of the geographic constraints that they face; or (ii) increase spending. Section 1.5 analyzes the extent to which the PIC-9 have the fiscal space to finance additional human capital spending.

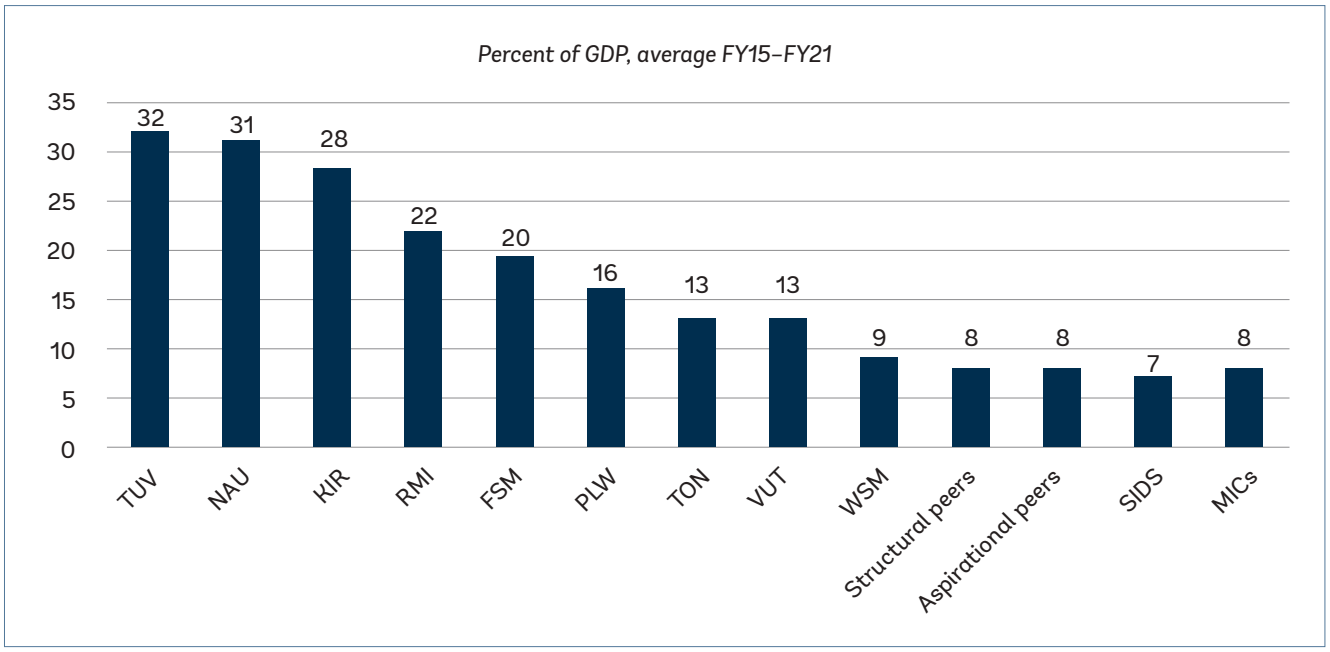
Figure 1.14: Variation in public spending efficiency not explained by geographic constraints



Notes: The residual shows the unexplained part of the model. A positive figure denotes that a country/region performed better than expected given geographic constraints and income level.
Source: Author's calculations using Model 3 coefficients from Table 1.3 regressions.

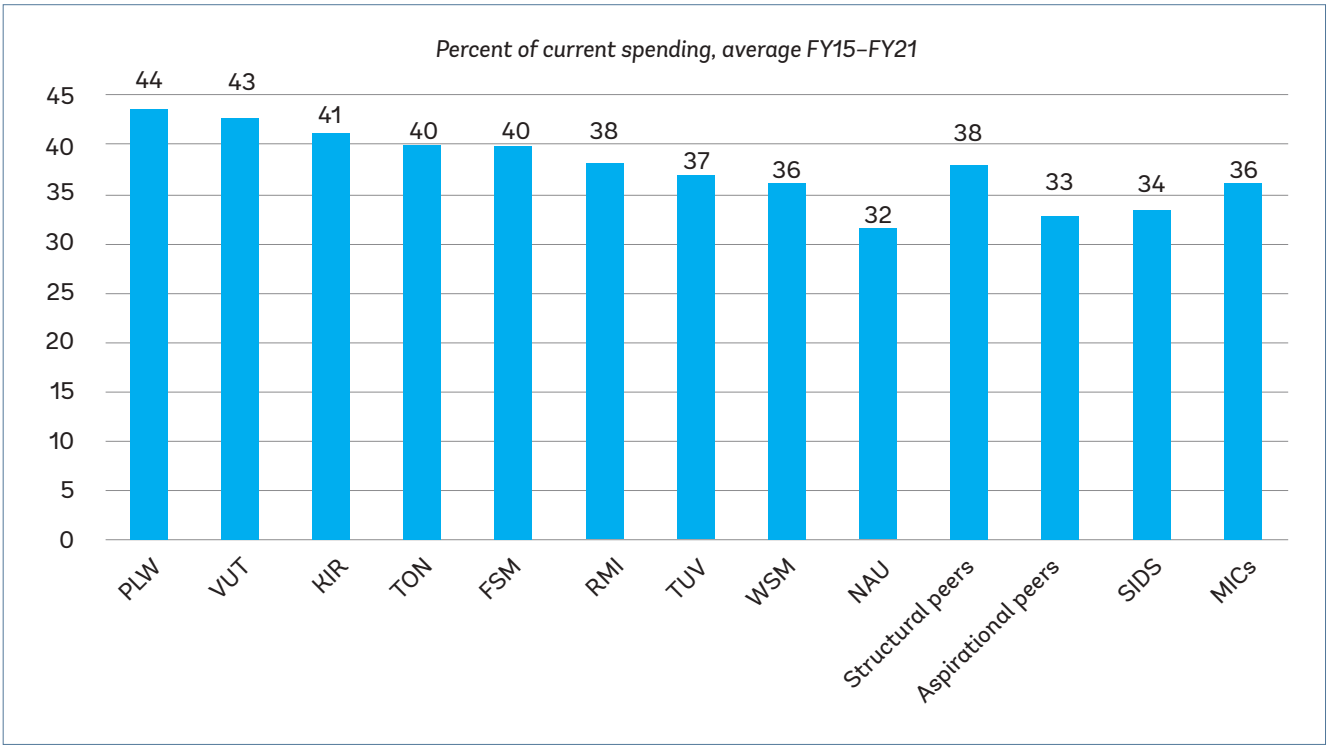
Current expenditure is the main driver of the high level of government spending across the PIC-9 (Figure 1.12). This is partly due to the region's relatively high wage bills, particularly for Nauru, Tuvalu, Kiribati, FSM and RMI (Figure 1.15). Across the region—but particularly in these PICs with relatively higher wage bills—the government's role as the primary service provider, the lack of economies of scale, and the small size of the domestic private sector mean that public sector employment and the wage bill represent a relatively large share of formal sector employment and government spending. In Nauru, Tuvalu, and Kiribati, for example, the public sector accounts for over two-thirds of formal sector jobs, and public sector wages are over a quarter of GDP. Nevertheless, as a share of total current expenditure, public sector wages in Nauru, Tuvalu, Kiribati, FSM, and RMI are broadly in line with overall PIC and small state averages (Figure 1.16), indicating that the non-wage components of current spending are also higher in these countries. High spending on goods and services is the other key driver of current spending across the Pacific. This can be attributed to inflated import costs and the substantial recurrent costs associated with delivering public services to small, dispersed populations, as well as low levels of competition due to the small size of the domestic market (Horscroft, 2014a, 2014b; Utz, 2021).

Figure 1.15: Public sector wage bills are structurally high as a share of GDP…



Source: National authorities, WDI and World Bank Database for Fiscal PERs.

Figure 1.16: ...but are broadly in line with peers as a share of current spending



Source: National authorities, WDI and World Bank Database for Fiscal PERs.

Capital expenditure as a share of GDP is above the comparative benchmarks in most of the PIC-9, particularly in the smallest and most geographically dispersed countries (Tuvalu, Kiribati, Nauru, FSM) (Figure 1.17 and Figure 1.18). The key drivers of the relatively large share of capital spending across the region include: (i) higher costs involved in building basic infrastructure such as roads, water, electricity, and telecommunications to ensure adequate service to small populations distributed across islands; (ii) the high cost of importing capital goods and building materials; (iii) shortages of public infrastructure, including as a result of frequent natural disasters that damage or destroy the capital stock; (iv) the relatively high share of development assistance (much of it on grant terms) to fund capital projects; and (v) additional fiscal space created by elevated sovereign rents in recent years. Capital spending in Tonga and Vanuatu has been somewhat higher than in peer countries due to reconstruction following natural disasters. In comparison, capital spending has been lower than the benchmarks in Samoa, RMI, and Palau—both as a proportion of GDP and relative to total public spending.

Figure 1.17: Capital spending is generally higher than peers as a share of GDP…

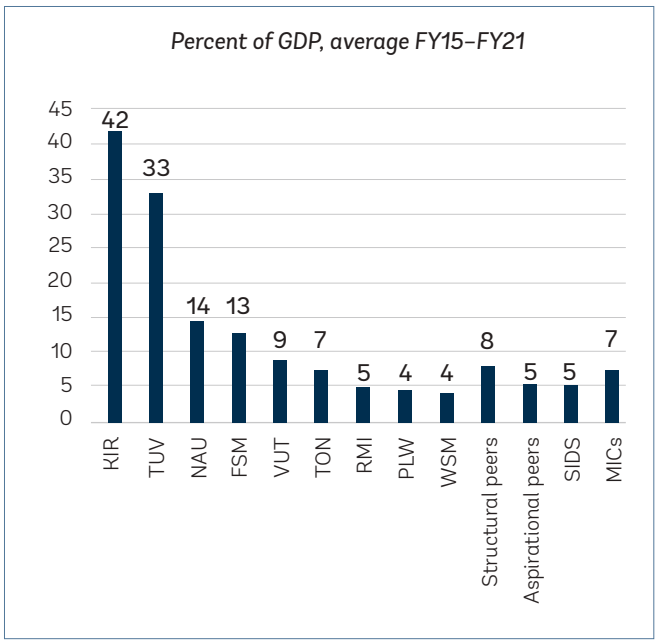
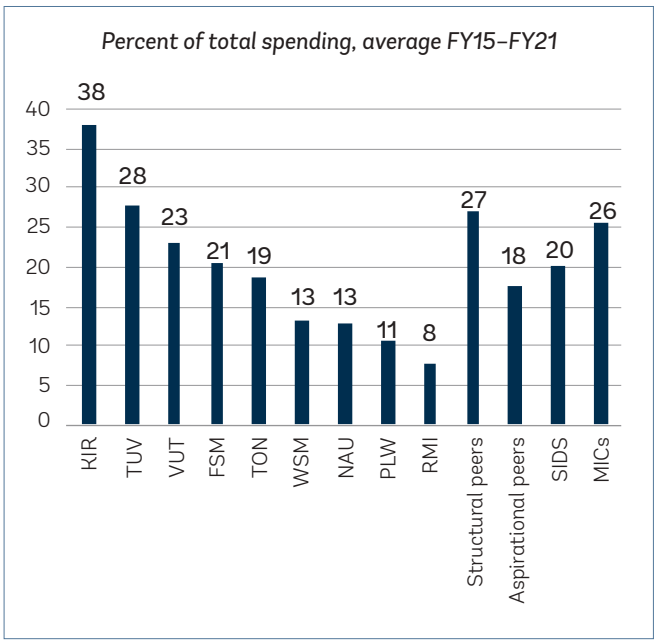


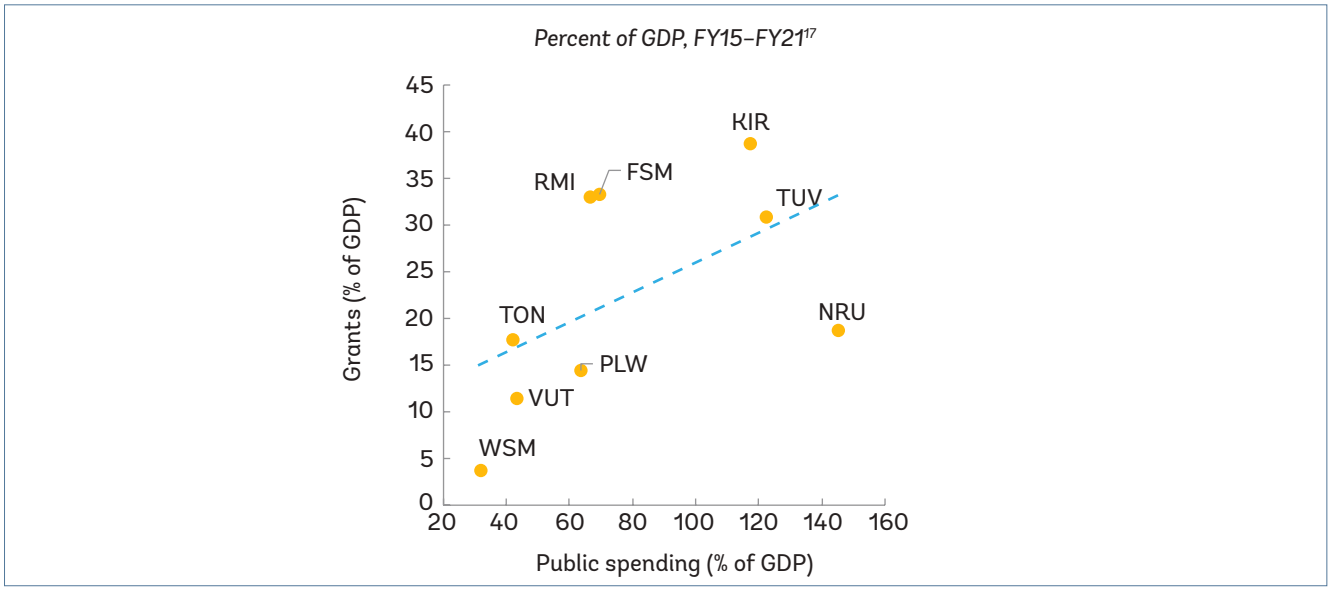
Figure 1.18: … but is broadly in line with peers as a share of current spending



Source: National authorities, WDI and World Bank Database for Fiscal PERs.

Public spending in the PIC-9 is strongly and positively correlated with grant inflows (Figure 1.19). The causality between grant inflows and public spending likely runs in both directions. On one hand, high fixed costs, a lack of economies of scale, and weak administrative capacity lead to higher costs to deliver a given level of coverage and quality of public goods and services. On the other hand, the presence of substantial grant aid may also dull the incentives to maximize public spending efficiency. At the same time, public spending in recipient countries is generally scaled to match the grant funding that is available. This strong correlation is magnified by external shocks, where additional development partner grants regularly finance public relief and recovery spending. Indeed, in many cases these two factors interact, resulting in recovery spending that is scaled to the available grants. Across the region, grants provide most of the funding for capital spending. In several countries, such as the COFA countries and Tonga (and to a lesser extent, Kiribati and Tuvalu), grants are also a key source of funding for recurrent spending, supporting the delivery of essential public good and services.

Figure 1.19: Expenditure and grants are positively correlated



Source: WDI.

Across the region, spending increased by 10–40 percent from FY19 to FY21, largely reflecting the COVID-19 response.[18] Additional current spending was required to support health sector preparedness and response, roll out the COVID-19 vaccine, mitigate the negative economic impacts on households and businesses, and stimulate the economic recovery (Box 1.1). Additional capital spending was also required for new quarantine facilities, laboratories, and cold chain and vaccine storage facilities. In Tonga and Vanuatu, additional spending was also required for disaster recovery and reconstruction following the impact of TC Harold in April 2020. This was predominantly financed by additional aid flows.

1.3.4 Public spending rose sharply in several PICs prior to the pandemic due to higher sovereign rents

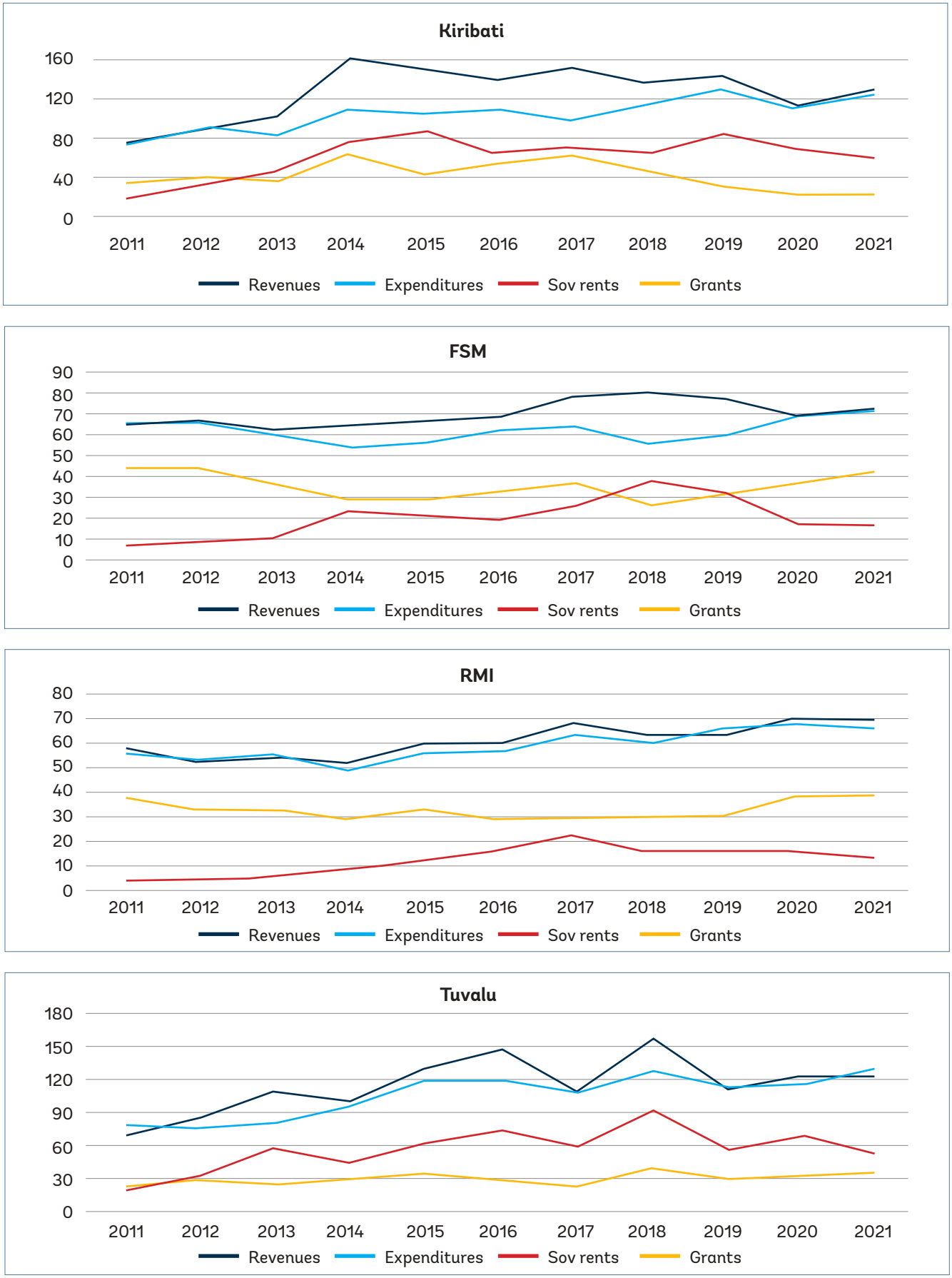
Prior to the pandemic, the rapid increase in sovereign rents in several countries was accompanied by an increase in spending (Figure 1.20). Elevated fishing revenues, along with other sovereign rents, provided six of the PIC-9 with considerable fiscal space in the years directly before the pandemic. While some of these windfall revenues were saved in sovereign wealth funds to support long-term fiscal sustainability (FSM, Kiribati, and Tuvalu, in particular), they also financed rapid increases in both capital and current spending. On the capital side, this included spending on government buildings (Tuvalu), transport infrastructure (Kiribati, Nauru), hospitals (RMI), and airplanes (Kiribati, and planned in Tuvalu). In terms of current spending, this included transfers to address the social security system's large unfunded liabilities (RMI), increases in copra subsidies (Kiribati and RMI), new social protection programs (Kiribati and FSM), higher civil servant wages (Kiribati and Tuvalu), and higher spending on overseas scholarships and medical referrals (Tuvalu). Potential efficiency gains related to some of these spending areas are considered in Chapters 3–5. In comparison, lower domestic revenue has generally constrained spending in Samoa, Tonga, and Vanuatu.

17. The graph presents data for FY15–FY19 to highlight the 'structural' level of aid in the region, abstracting from the large temporary increase in grants in FY20–FY22 due to COVID-19.

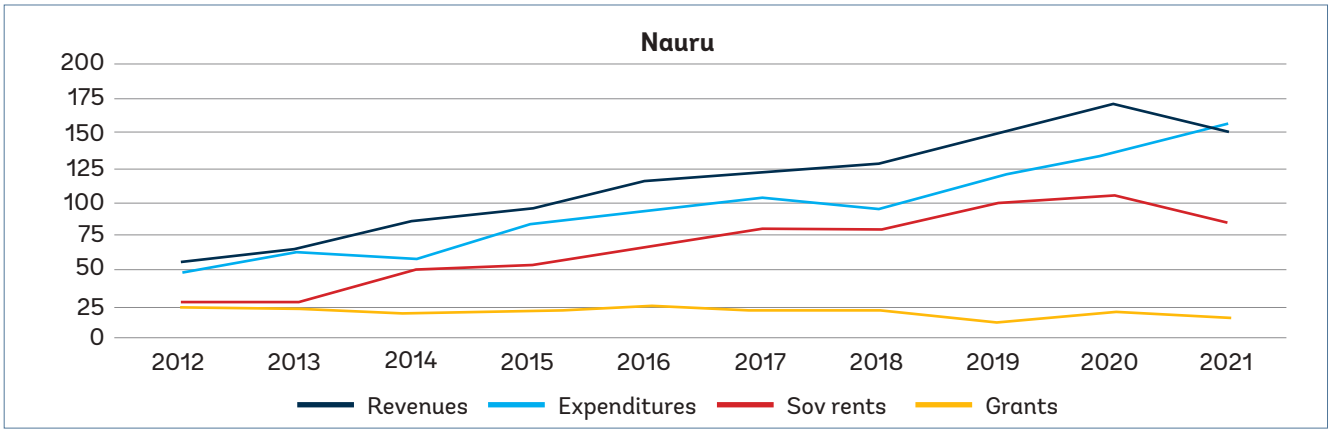
18. Kiribati was the exception, owing to a 36 percent increase in current spending in FY19 due to the commencement of the unemployment benefits program. Nevertheless, spending in FY21 was 17 percent higher than in FY18, reflecting COVID-19 additional spending.

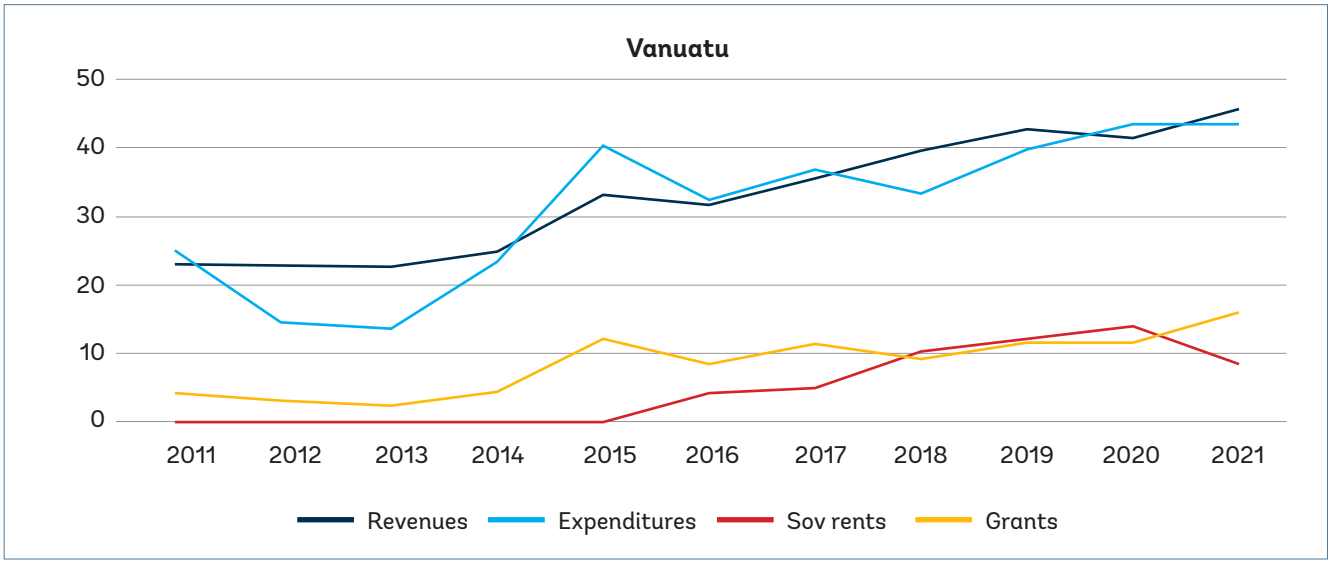
Figure 1.20: Evolution of total revenues, sovereign rents, grants, and total expenditure for PIC-9 countries that benefited from sovereign rents

Percent of GDP



Percent of GDP





Source: National authorities and World Bank calculations.

While some of this additional spending has helped the countries to address key development needs, the quality of spending has been mixed. For example, Kiribati has used increasing fishing license revenues to accumulate large cash reserves and bolster its sovereign wealth fund—the Revenue Equalization and Reserve Fund (RERF)—to some degree. At the same time, total spending has doubled in nominal terms (and current spending has increased 2.5 times), rising from 83 percent of GDP in FY13 to 124 percent in FY21, with new spending on health and education, social protection, the public wage bill, and the fledgling national airline (Box 1.3). With the PIC-9 likely to face significant fiscal challenges over the coming 20 years, there is a need to build fiscal buffers to support long-term fiscal sustainability. However, the PIC-9 also have significant development needs now, which require additional spending. The challenge is to balance these two objectives. Given the trade off, ensuring that spending is of high quality is critical. In this context, there is a need to review and rationalize some of the dramatic increase in spending in recent years, including on education scholarships (Chapter 3), overseas medical referral schemes (Chapter 4), and copra subsidies and social protection programs (Chapter 5).

Budget management and spending quality are also undermined by the volatility of sovereign rents. PIC-9 sovereign rents regularly fluctuate by several percentage points of GDP from one year to the next (Figure 1.20).[19] These highly volatile flows, combined with PIC-9 governments' very limited capacity for revenue forecasting and underdeveloped governance frameworks to manage windfall revenues, has led to an increasing frequency of supplementary budget and off-budget spending. Such spending often does not follow the full budget process, leading to opaque decision making with limited contestability. This has two impacts. First, it further undermines the quality of spending, by creating perverse incentives for line ministries to submit contentious spending proposals during the annual budget cycle, if they expect that additional revenues will be available during the year that are not subject to the same scrutiny as during the annual budget process. Second, it undermines ministries of finance that are trying to balance short-term development needs with longer-term fiscal sustainability.

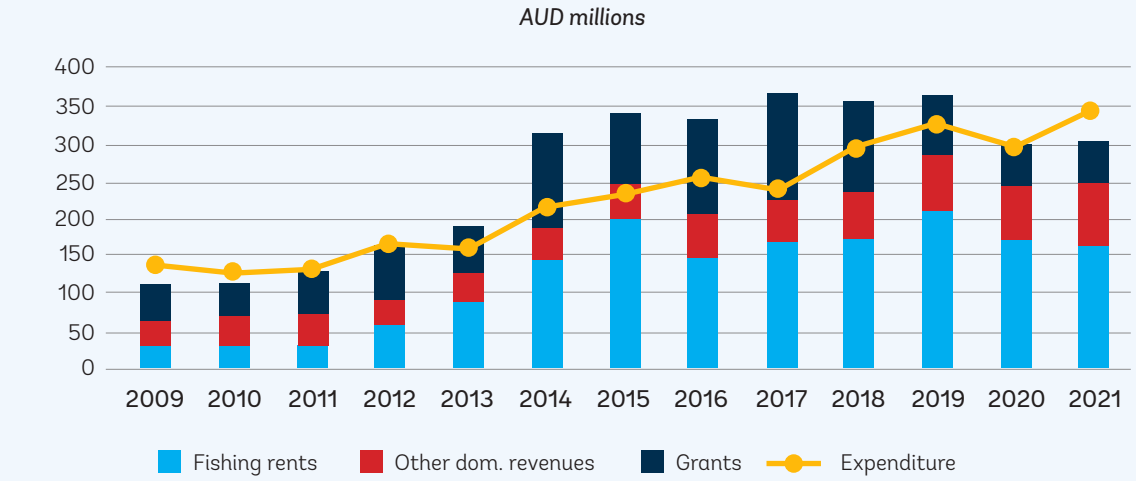
Box 1.3: Managing windfall fishing license revenues—the case of Kiribati

Fishing license revenues in Kiribati have increased dramatically in recent years and now make up over 70 percent of all revenues. Kiribati joined the PNA VDS in 2013. Subsequently, annual fishing license revenues increased from an average of $A 36 million over FY07–FY12 to an average of $A 176 million over FY15–FY21, representing over 70 percent of all domestic revenues (Figure 1.21).

Windfall revenues have resulted in large fiscal surpluses which have been used to accumulate cash surpluses and replenish Kiribati's sovereign wealth fund. Since FY14, fishing license revenues have led to fiscal surpluses averaging 28 percent of GDP over FY14–FY21 (including grants). The authorities have used these surpluses to accumulate large cash reserves (93 percent of GDP at end–FY21) and transferred about 50 percent of GDP to the RERF in FY15 and FY16 (Figure 1.22).

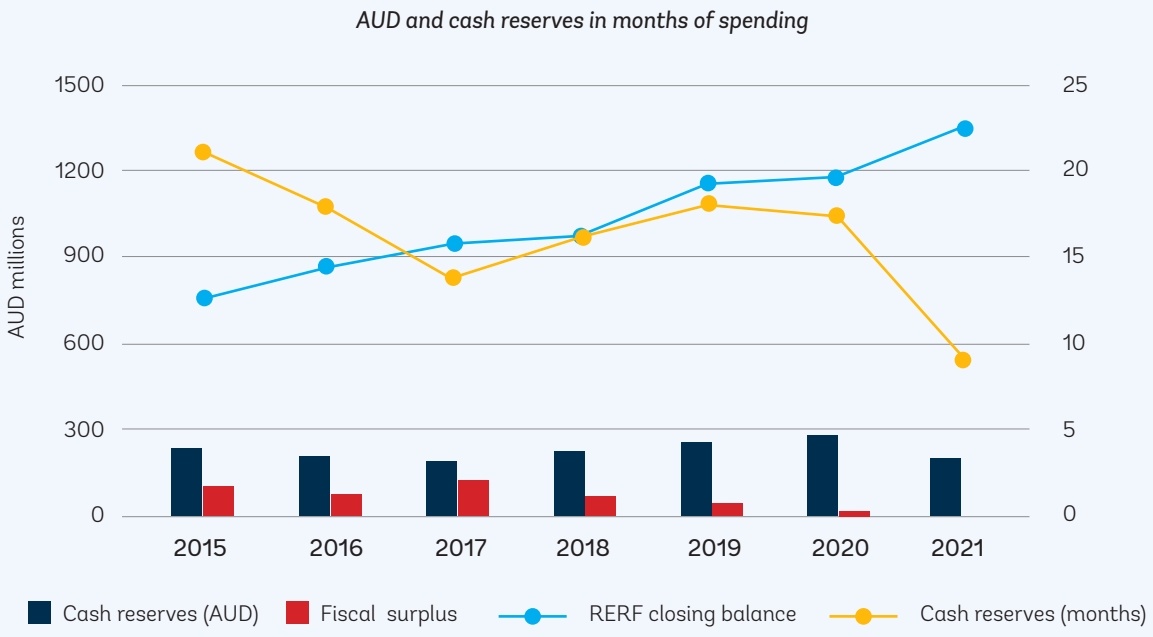
19. Fishing revenues depend on El Nino climate conditions, the countries' annual fishing allocation under the PNA VDS, global canned tuna prices, global fuel costs, and the AUD/USD exchange rate (in the case of Kiribati and Tuvalu). Non-fishing sovereign rents fluctuate due to global economic conditions and, in some cases, individual corporate decisions. FSM provides an extreme example, where income taxes have consistently represented 3–5 percent of GDP over the past 20 years. However, this jumped to 11, 23, and 17 percent of GDP in 2014, 2018, and 2019, respectively, due to one-off payments by individual captive insurance companies in each year.

Figure 1.21: Booming fishing revenues were accompanied by rising expenditure…



Source: Kiribati national budgets.

Figure 1.22: …and some increases in fiscal buffers



Source: Kiribati national budgets.

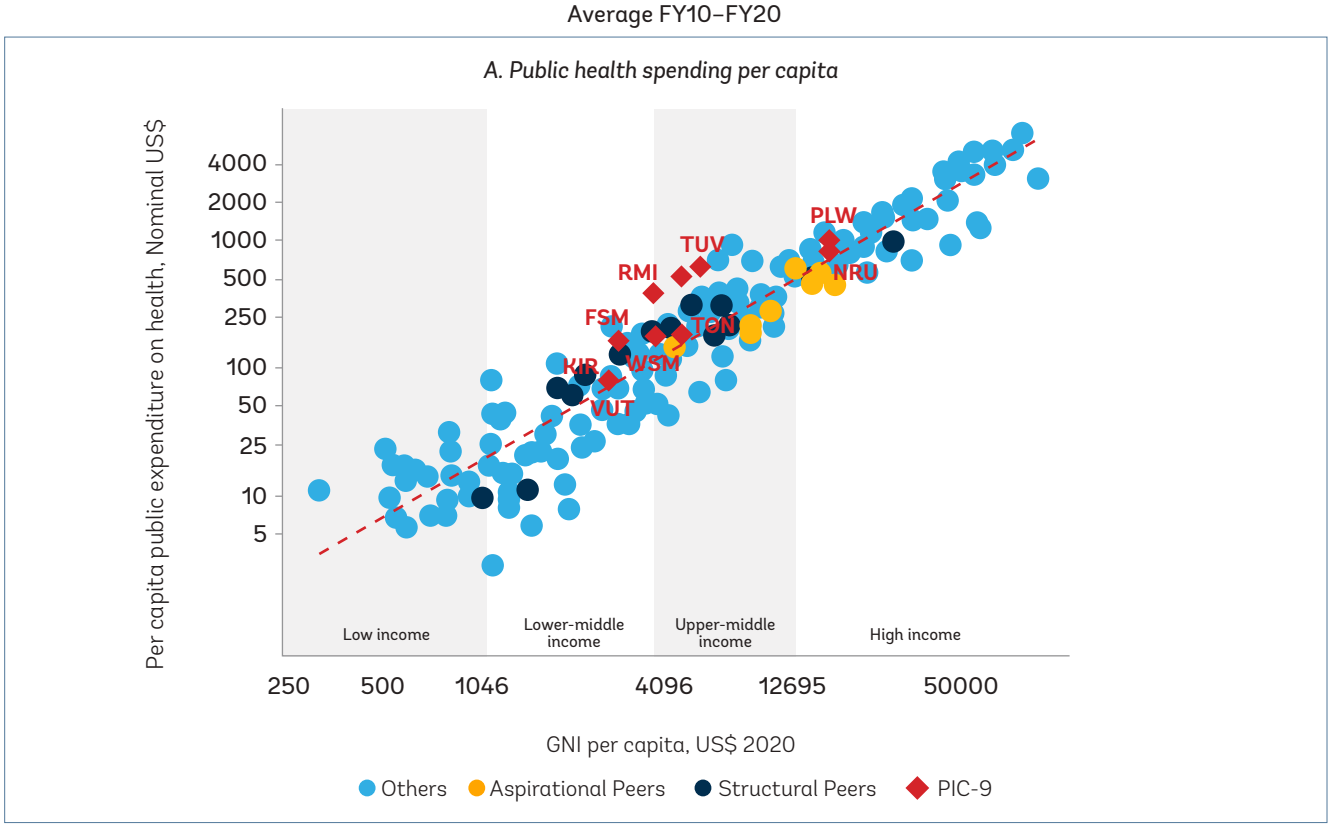
Higher revenues have also been used to fund a large increase in expenditure, though spending quality has been mixed. Spending increased from an average of 80 percent of GDP in FY10–FY13 to 111 percent of GDP in FY14–FY21. Most of this increase has been for recurrent spending, which increased from 52 percent of GDP in FY10–FY13 to 65 percent of GDP in FY17–FY19 and 95 percent of GDP in FY21. This has included increased spending on health and education, and the introduction of new social programs to support the unemployed and those with disabilities. However, the increased spending has also been to finance higher public sector wages and a doubling of the copra subsidy (from $A 1 to $A 2/kg in 2016), along with large investments in the fledgling national airline. Indeed, the wage bill increased by over 70 percent in nominal terms (increasing from 24 to 35 percent of GDP) from FY16 to FY21, while subsidies and current transfers have almost tripled in nominal value (increasing from 19 to 45 percent of GDP)—and rose even further in FY22 with the doubling of the copra subsidy again (to $A 4/kg). In addition, in FY18, the authorities signed a purchase order for two aircraft for the state-owned Air Kiribati Ltd, worth 38 percent of GDP. Over the course of FY18–FY20, the government appropriated 18 percent of GDP towards the purchase of the first plane. The purchase of the second plane has been on hold due to pandemic-related border restrictions. Additionally, the authorities are planning to purchase four smaller planes to service domestic routes, at a total cost of US$20.8 million (10 percent of estimated FY22 GDP).

Better governance frameworks are required to use windfall gains in the most efficient way possible. The authorities have made significant strides to improve the management of the RERF and to improve the returns it earns on its cash reserves. In September 2020, the government introduced a rule-based withdrawal policy to preserve the value of the RERF for future generations while only allowing withdrawals in limited circumstances. However, fishing revenues and grants (plus their associated capital spending) are projected to remain substantial and subject to volatility. Yet, there are currently no clear rules to determine the appropriate level of cash reserves needed to adequately manage revenue volatility or govern how cash reserves are spent. Furthermore, from a political economy perspective, cash reserves can be more easily drawn upon to finance ad hoc spending proposals than the RERF, which faces a higher level of parliamentary scrutiny. This represents a disincentive to boost savings in the RERF. It has also led to large spending via supplemental budgets, which are not subject to the same rigorous prioritization process as occurs during preparation of the annual budget. Improvements in revenue forecasting (to reduce the need for supplemental budgets), combined with the development of a multi-year fiscal framework, would help promote medium-term fiscal sustainability and improve the quality of spending.

1.3.5 Despite high social sector spending, PIC-9 human capital outcomes have underperformed

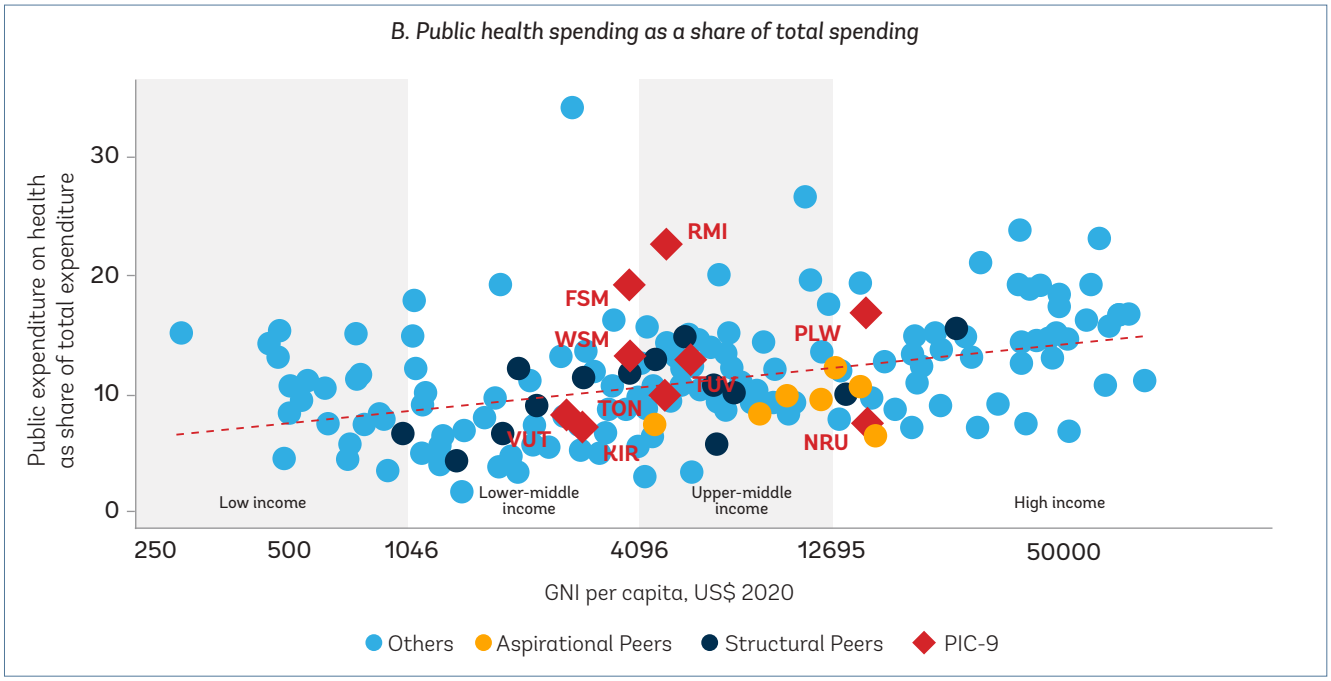
Prior to the pandemic, social sector spending was high relative to the region's level of income and peer countries; and increased further during the pandemic. Pacific governments have historically allocated substantial resources to the health and education sectors, both in absolute terms and as a percent of total spending (Figure 1.23 and Figure 1.24). In comparison, public spending on social protection (social insurance, social assistance, and employment and migration programs) across most of the PIC-9 is limited. For example, prior to the pandemic, social assistance spending was below 0.5 percent of GDP across most of the PIC-9, far below the global average of 1.5 percent of GDP for developing countries. The exceptions are RMI and Kiribati, where copra subsidies and unemployment benefits (Kiribati) represent sizeable expenditure items. The pandemic resulted in a significant increase in resources for the social sectors (Box 1.1). In several cases, this involved PIC-9 governments introducing innovative new programs to provide social assistance to households, such as via wage subsidies. However, as the region's limited capacity was diverted to crisis preparedness and response, there is some evidence that pandemic spending and activities crowded out spending on core activities, such as preventative school maintenance and health care (see Chapters 3 and 4 for details).[20]

Figure 1.23: Public spending on health is high relative to peers and the PIC-9's income level



Source: National authorities and WDI.

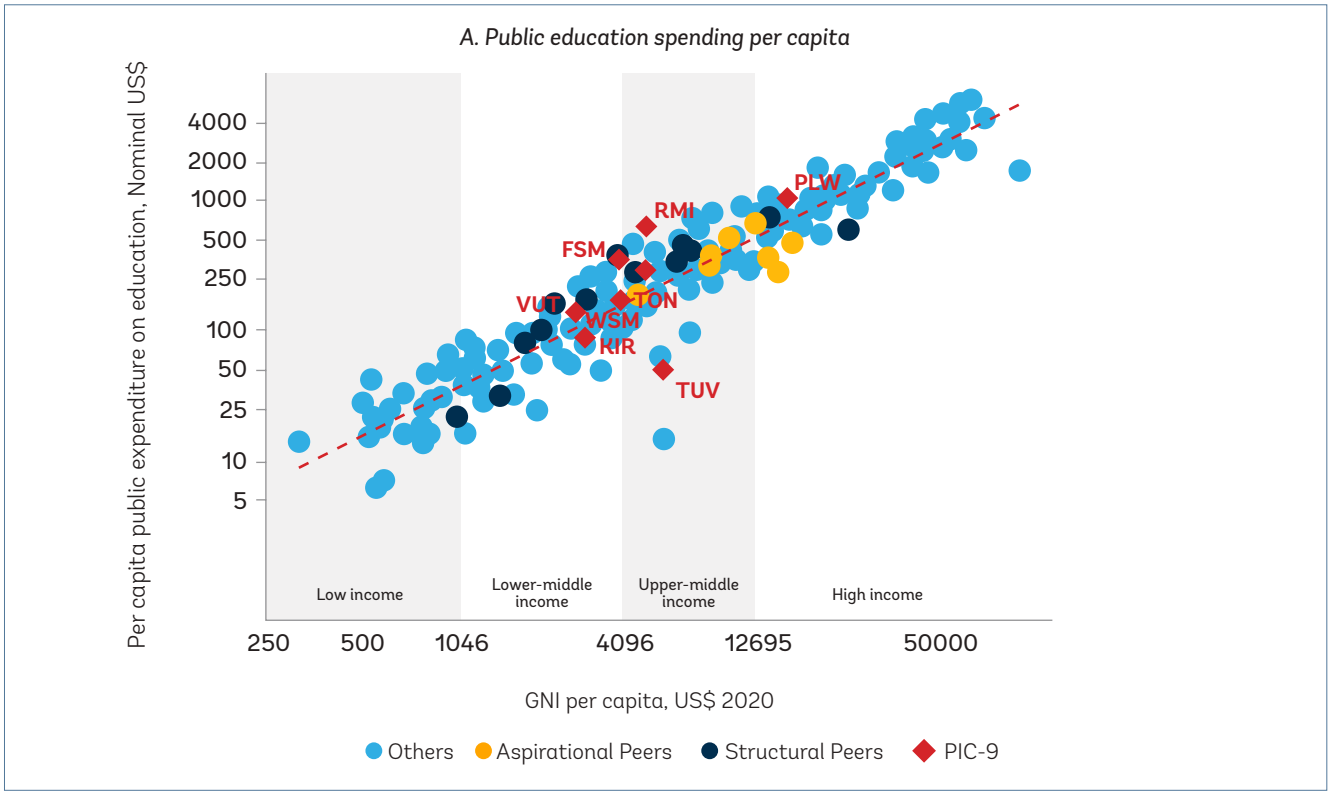
20. For example, Kiribati reported a drop in tuberculosis case notification rates, while Tonga reported a decrease in post-natal care visits in the first half of 2020.



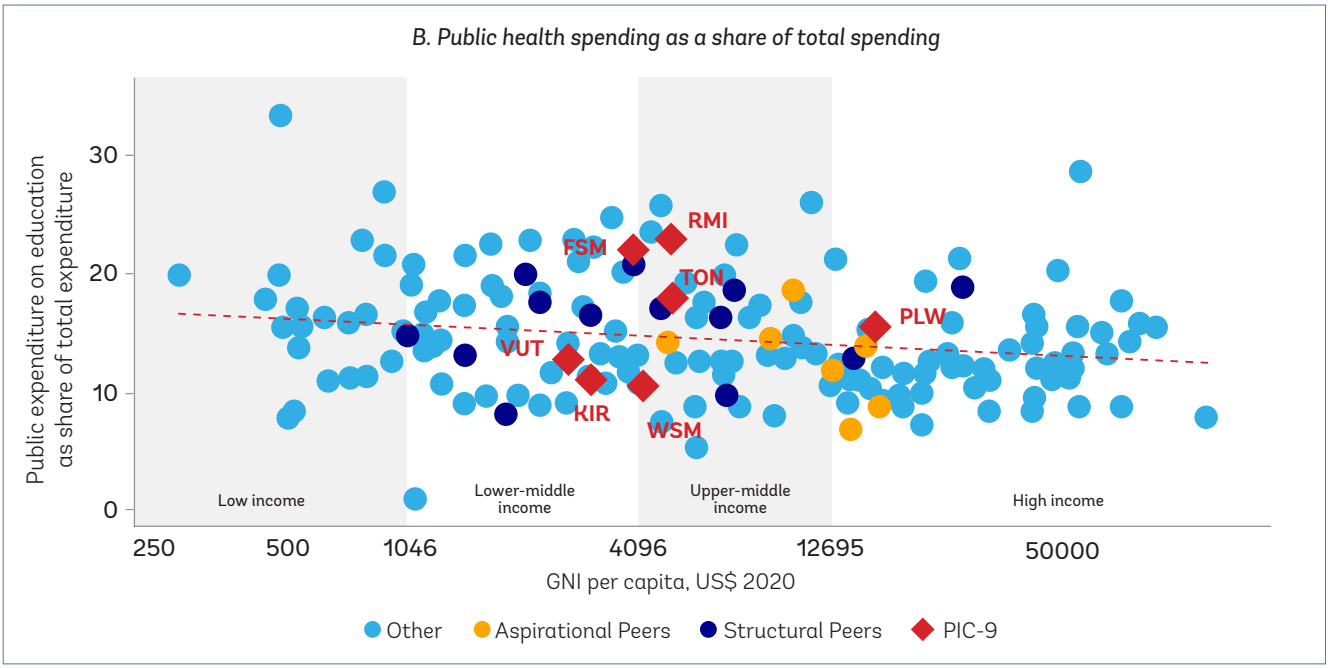
Source: National authorities and WDI.

Figure 1.24: Public spending on education is also generally high compared to peers and the region's level of development

Average FY10–FY20



Source: National authorities and WDI.



Source: National authorities and WDI.

Despite high spending in the social sectors and some progress in improving human development outcomes in recent years, the PIC-9 have low HCI scores relative to their level of income and spending (Figure 1.1).[21] Access to education and health services has generally improved across the region, although improvements have been slower than in other countries at similar income levels. Nevertheless, HCI scores remain relatively low across the PIC-9 due to low learning-adjusted years of schooling (LAYS), low life expectancy due to NCDs, and poor infant health outcomes in some PICs (including high infant mortality and stunting). Low LAYS is primarily due to poor quality of education, with the PIC-9 averaging almost half a standard deviation less than their aspirational peers in standardized international test scores.[22] The prevalence of NCDs also imposes high human and economic costs. For example, the prevalence of diabetes in the PIC-9 is more than double the global average (17.1 percent compared to 8.8 percent), with RMI, Kiribati, and Tuvalu ranked first, second and fourth in the world. Absent intervention to address the NCDs epidemic, the economic burden is projected to increase by 5–9 percent of GDP by 2040 (World Bank, 2017). Access to education and health services is relatively high across the PIC-9 (not withstanding inequalities between economic centers and outer islands), though low secondary school completion is a factor in some PICs.

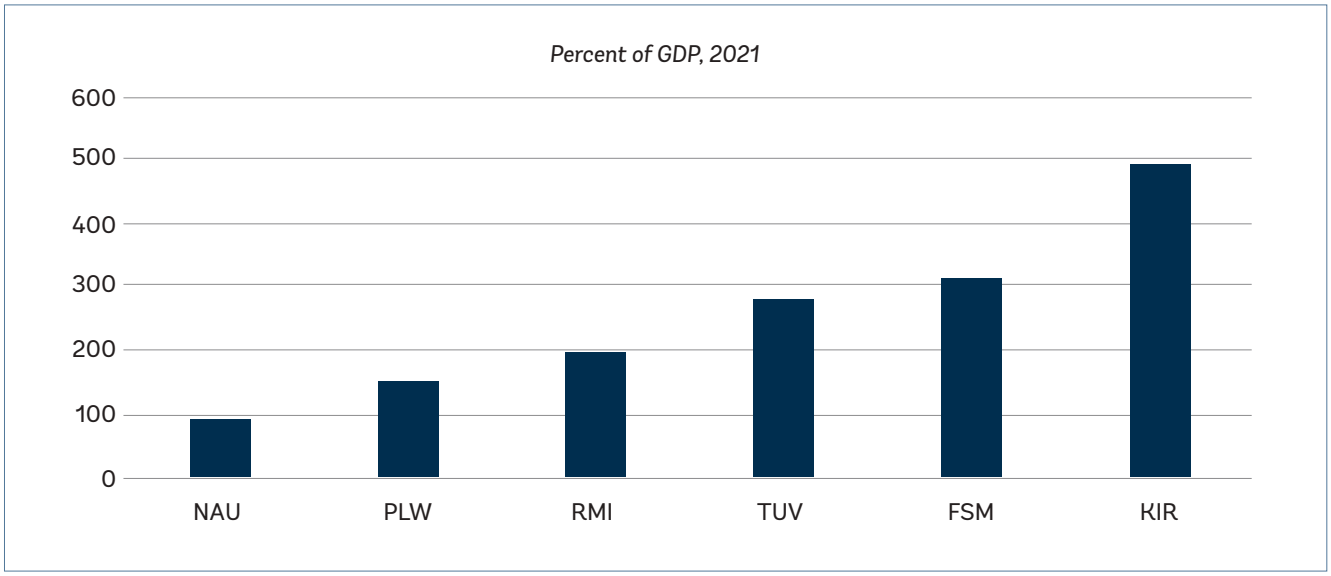
21. The average child born today in the PIC-9 will be only 50 percent as productive when they grow up as would have been the case if they had optimal health and education. This is lower than aspirational peer countries (59 percent) but higher than structural peer countries (48 percent). However, the scores range from 42 percent in RMI to 59 percent for Palau.

22. While test scores are slightly higher for girls than for boys (395 vs 367), the gap between PIC-9 girls and boys compared to girls and boys in aspirational peer countries is similar (28 points vs 33 points).

1.3.6 Sovereign wealth funds remain a key instrument to support long-term fiscal sustainability in six of the PIC-9

Six PIC-9 countries—FSM, Palau, RMI, Kiribati, Nauru, and Tuvalu—have sizeable sovereign wealth funds (SWFs).[23] Palau, RMI, Kiribati, and Nauru each have one SWF, while FSM and Tuvalu each have two funds. Table 1.4 provides a summary of the history of each SWF, the governance structures, and accumulation and withdrawal rules. The value of the SWFs ranges from 80 percent of GDP in Nauru to over 400 percent of GDP in Kiribati (Figure 1.25). The Compact Trust Funds (CTFs) in FSM, RMI and Palau were established and are financed as part of those countries' COFA with the US. Kiribati's RERF was originally capitalized using tax revenues from now-depleted phosphate reserves, while the Tuvalu Trust Fund (TTF) and Nauru Trust Fund (NTF) were established with contributions from the respective governments and development partners. In five of the six countries (excluding Palau), sovereign rents have become a key source of government contribution to the SWFs. Of the six PIC-9 countries that receive large sovereign rents, only Vanuatu does not have a SWF.

Figure 1.25: SWFs are sizeable in several PICs



Note: FSM and Tuvalu represent combined SWF balance.
Source: Country authorities and staff calculations.

23. This section does not consider funds designed to finance emergency relief and recovery, such as the National Emergency Fund in Tonga, Tuvalu Climate Change and Disaster Survival Fund, and Disaster Assistance Emergency Fund in RMI and FSM.

The SWFs are primarily intended to enhance long-term fiscal sustainability but have also been used for short-term macro-fiscal stabilization during shocks. The CTFs in FSM and RMI are designed as savings funds, where investment returns would provide budget financing into perpetuity, to replace COFA grants upon their scheduled expiry in 2023. In comparison, the Palau CTF is a sinking fund designed to last only until 2045. The NTF, the TTF, and the RERF were designed as saving funds with similar objectives to the RMI and FSM CTFs, while the Tuvalu Consolidated Investment Fund (CIF) was designed as a stabilization fund to smooth out volatile revenues. However, during FY08–FY14 both the RERF and CIF were used as stabilization tools to finance repeated fiscal deficits. These repeated drawdowns threatened their long-term viability. Subsequent reforms strengthened their sustainability and reshaped the role of the RERF to serve as a long-term endowment fund. The FSM Trust Fund (FSMTF) is designed as a strategic development fund to finance investments for future generations.

Table 1.4: Summary of PIC-9 Trust Funds

SWF	Capital Source	Size (US$)	Board Composition	Background and accumulation and withdrawal rules
FSM Trust Fund (1999)	FSM government (primarily fishing revenue and corporate tax)	$290.2m (71.3 percent of GDP)	Five trustees appointed by the FSM President and approved by FSM Congress	The FSM Trust Fund is a SWF created by the FSM Congress. It is entirely under the control of the FSM government. The purpose of the Fund is to ensure long term financial viability of the FSM by providing additional sources of revenue. Contributions to the fund are mainly through appropriations by the FSM Congress. Key sources include rents from fishing revenues and captive insurance corporate taxes. The FSM Trust Fund Act (amended in 2019) stipulates that no funds can be withdrawn from the fund before FY30.
FSM Compact Trust Fund (2004)	US COFA grants	$783.9m (192.4 percent of GDP) (FY20)	FSM (2 members), USA (3 members)	In 1986 the United States entered into the original COFA with FSM, RMI, and Palau. As part of a more recent amendment to the COFA, the CTFs were created with contributions from the US and the governments in the North Pacific. The CTFs in FSM and RMI are designed to supplement US annual grant assistance in the long term and, more generally, to contribute to economic development and long-term budgetary self-reliance of these countries. Under the COFA, drawdowns from the CTF are prohibited prior to FY24 and limited to investment returns after FY24.
RMI Compact Trust Fund (2004)	US COFA grants, plus contributions from RMI and Taiwan governments	$480m (205 percent of GDP) (FY20)	RMI (2 members), US (4 members), Taiwan (1 member)	
Palau Compact Trust Fund (1994)	US COFA grants	$276m (107 percent of GDP) (FY20)		Palau's CTF was established in 1994. The US provided US$70 million to the CTF in FY95–FY97, and a further US$65 million at the end of FY18. The CTF was expected to provide annual contributions to the budget to a maximum of US$5 million from FY99 to FY18 and US$15 million starting in FY19. Palau, however, chose to forgo the distribution for the initial three years from FY99 to FY01, before beginning its annual drawdowns in FY02. These annual contributions are designed to supplement, and eventually replace (in FY25), the COFA grants. The CTF was designed to be a sinking fund to last until 2045.

(continued on next page)

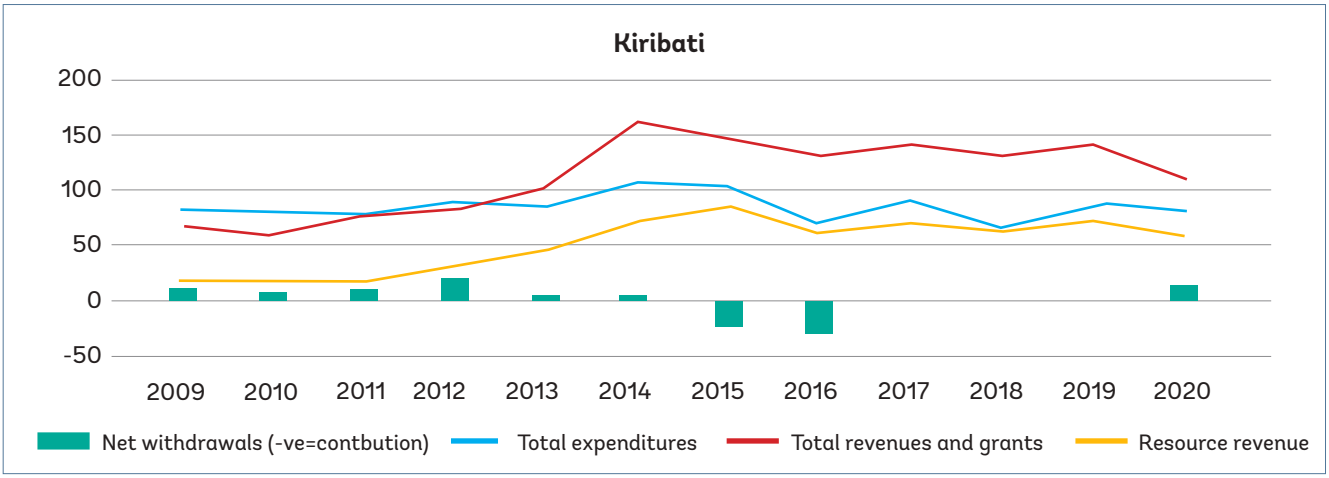
SWF	Capital Source	Size (US$)	Board Composition	Background and accumulation and withdrawal rules
Kiribati Revenue Equalization Reserve Fund (RERF) (1956)	Phosphate tax revenues, fishing revenues	$983m (456 percent of GDP) (July 2021)	Kiribati Cabinet	The RERF was established in 1956 during the United Kingdom's colonial administration of the Gilbert (now Kiribati) and Ellice Islands (now Tuvalu). Initially the RERF was capitalized using tax revenues from now exhausted phosphate mining royalties. There is no formal accumulation rule, but it receives fiscal surpluses on an ad hoc basis, generated primarily through fishing license revenues. The objective of the RERF (updated in 2018) are to: (i) maximize long-term returns without incurring undue risk; (ii) ensure that the real long-term value of the assets is maintained; and (iii) make sustainable drawdowns from the RERF to enable the government to finance development projects. The RERF's investment strategy is limited to government bonds and public equities, with a 50/50 target allocation. In August 2020, the government adopted a withdrawal policy that: i) sets a benchmark real return of 5 percent per year; and ii) allows for any excess returns above the benchmark to be withdrawn for development purposes with approval of the Cabinet. With these recent reforms, the authorities are reshaping the role of the RERF to serve as a long-term endowment fund.
Nauru Trust Fund (1968, 2015)	Fiscal surpluses (led by fishing and RPC revenues) and donor contributions	$163m (122 percent of GDP) (FY21)	Australia (1 member), Nauru (1 member), New (1 member), Zealand, Taiwan Province of China (1 member)	The NTF was capitalized in 2016, replacing the earlier Nauru Phosphate Royalties Trust (NPRT) which was worth over A $1 billion at its peak but was depleted through poor investments and repeated fiscal deficits. The aim of the NTF is to provide a stream of budget financing to support investments in education, health, environment, and public infrastructure after 2033. The fund is financed by annual contributions from both the government and its key bilateral donors—the governments of Australia, New Zealand, Taiwan Province of China, and initially the ADB. Its objectives are to: i) achieve a real return of 3.5 percent after fees over rolling 10-year periods; and ii) have a risk of negative returns of no more than 4 in every 20 years. It will operate under an initial buildup phase, currently set at 20 years, during which it aims to allocate 60–90 percent to growth assets and no withdrawals are allowed. As determined by the NTF's governing committee, the fund will then enter a distribution phase whereby regular transfers will be made to support the budget, while seeking to preserve the real value of the fund in perpetuity.
Tuvalu Trust Fund (1987)	Bilateral grants	$135m (241 percent of GDP) (FY20)	Australia (1 member), New Zealand (1 member), Tuvalu (1 member)	The TTF was established in 1987 with contributions from the Tuvalu government and external donors including Australia, New Zealand, and the UK. The TTF aims to provide a source of recurrent revenue to the government. There is no formal accumulation rule, although the government can make contributions from budget surpluses. The TTF makes transfers to the Tuvalu CIF (see below) only when the market value of the TTF exceeds the real maintained value (indexed to the Australian consumer price index).
Tuvalu Consolidated Investment Fund (CIF) (1987)	TTF transfers, fishing revenues	$30m (54 percent of GDP) (FY20)		The CIF receives transfers from the TTF (when the balance exceeds its real maintained value), and a rule has been established so that all fishing revenues above the 3-year historical average are placed in the CIF. The CIF can be drawn on to finance budget deficits but has a minimum target balance of 16 percent of the maintained (real) value of the TTF.

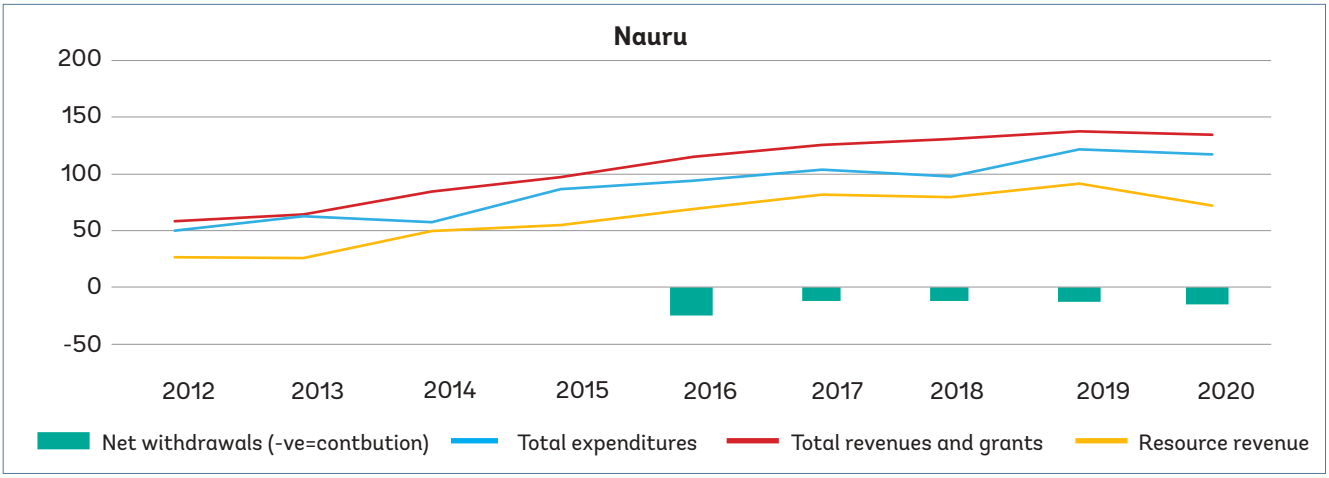
Source: World Bank, 2016, IMF Country Staff Reports, World Bank Staff estimates.

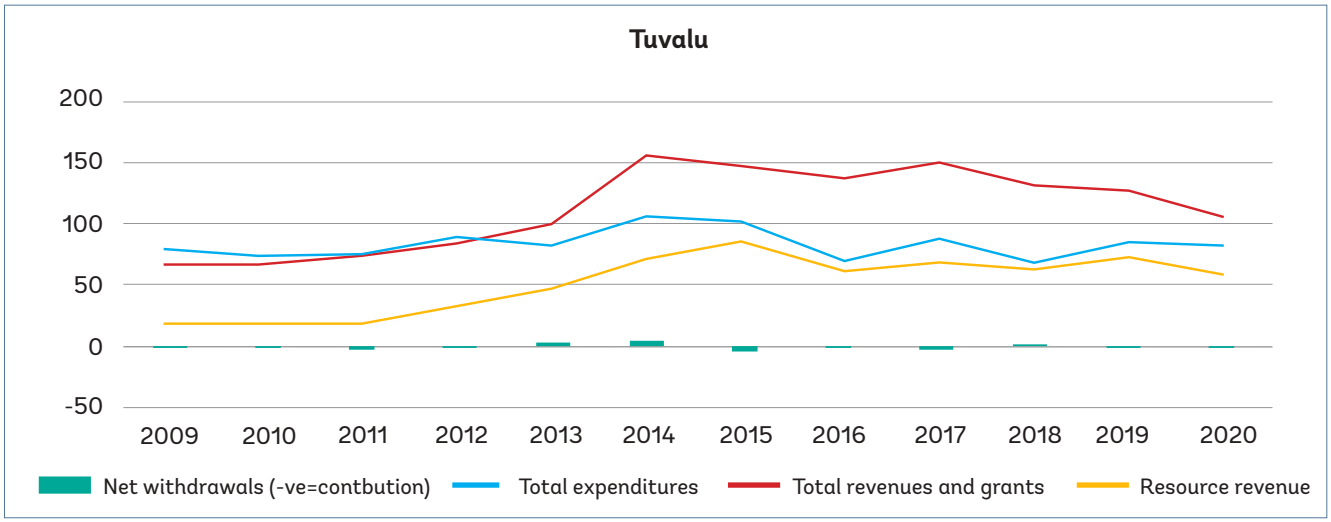
Apart from FSM and Nauru, SWF accumulation rules are vague or non-existent, leaving room for discretion. In Nauru, the accumulation rule is clear and stipulated in the Memorandum of Understanding between the government and bilateral contributors. The range of contribution is 3 to 12 percent of annual domestic revenue. While the range creates a buffer in case of revenue volatility, it is also stringent enough to ensure fiscal discipline. In FSM, in FY18 the government introduced a new rule whereby at least 50 percent of corporate tax payments and 20 percent of fishing license fees are saved into the FSM Trust Fund. The COFAs with RMI and FSM include annual contributions to the CTFs from the US government, but there are no rules about contributions from the FSM and RMI governments. In Kiribati and Tuvalu, contributions to the SWFs are ad hoc, with no formal accumulation rule. In Kiribati, this lack of accumulation rules has led to procyclical spending and rising cash balances. Indeed, over the last 12 years, there has been only two instances where Kiribati recorded a net RERF accumulation, despite recording sizeable fiscal surpluses. Instead, authorities have chosen to build cash reserves—which do not have withdrawal rules and parliament oversight, as the RERF does. This means there are less constraints to using cash reserves to finance additional spending outside of the budget process, exacerbating procyclical spending. A similar procyclical spending trend was evident in Tuvalu, where the TTF also lacks a formal accumulation rule (Figure 1.26).

Figure 1.26: Windfall sovereign rents led to SWF accumulation in Nauru but not in Kiribati and Tuvalu, partially due to differences in SWF accumulation rules

Revenues, expenditure, and net TF withdrawals (withdrawal less deposits), percent of GDP







Source: Country authorities and World Bank staff calculations.

Withdrawal rules are relatively stringent in most countries. For example, in Tuvalu the TTF does not allow transfers directly to the budget. Funds can only be transferred to the CIF, and only when the TTF exceeds its target real value. This has been effective in ensuring that the TTF maintains its value in real terms. The CIF, which has regularly been used to finance budget deficits, had fallen to less than 10 percent of GDP in FY11–FY13, requiring donor injections to maintain a positive balance. However, subsequent reforms—including the introduction of a minimum target balance (16 percent of the real value of the TTF)—have transformed the CIF into a fiscal stabilization fund and resulted in a steady accumulation, reaching over 50 percent of GDP in FY20. The FSM and RMI CTFs cannot be withdrawn until FY24. The Nauru TF cannot be withdrawn until 2033 unless the governing committee determines otherwise. On the contrary, withdrawal from the RERF in Kiribati had been more ad-hoc, leading to a significant decline in its value in the mid-2000s. This threatened its sustainability, which triggered a review of its general structure. The review led to a wave of reforms to improve legislative oversight, strengthen the governance framework, set a more appropriate investment strategy, and tighten the withdrawal rules, leading to substantially improved performance in recent years.[24]

Reform to the RMI and FSM CTF distribution rules is required to enhance fiscal sustainability and stability. Several studies have simulated the probability of multiple zero-distribution years over a 40-year horizon under the current distribution rules, with similar results.[25] While the current rules are adequate to provide a constant annual yield under benign financial market conditions, they are inadequate in the presence of market volatility. In such circumstances, the current rules create a substantial risk of highly unstable annual distributions post-FY23. Such volatility could have severe negative consequences for macroeconomic stability and public service delivery. Reform of these rules is being discussed as part of the ongoing COFA renegotiations between the US and RMI and FSM. However, reform will require an act of the US Congress. An optimal result would be a change in the rules coupled with additional funding to increase the CTFs' corpus relative to the target annual distributions (World Bank, 2021a).

24. Kiribati's RERF withdrawal rule states that annual nominal returns in excess of 5 percent can be withdrawn to finance 'development purposes'. However, these purposes include both capital and current spending (such as unemployment benefits and the copra subsidy). While the rule is an improvement on previous practices, its design means it remains procyclical and volatile.
25. For example, see GAO (2018), ADB & Graduate School USA (2020), Graduate School USA (2018).

Experience shows that PIC SWFs are most effective when there is strong governance and the operational rules are simple, transparent, and limit discretion (World Bank, 2016). Clarity in accumulation and withdrawal rules, limited discretion, and sound management have helped Nauru build the NTF from zero in 2015 to 96 percent of GDP in 2021. In Tuvalu and Nauru, the robust governance structure of the TTF and NTF—with the majority of the Board representatives independent of government—has helped ensure that the Funds' real value have been maintained over time. In Kiribati, the recent RERF reforms introduced a rule-based withdrawal policy and outlined limited pre-determined circumstances under which withdrawals can occur.[26] The rule also formalized what has become the government's practice of avoiding the use of the RERF for fiscal stabilization and instead maintaining a cash reserve buffer in the Consolidated Fund to manage volatility in fisheries revenues.

1.4 Why is the region at risk of debt distress and how can this be addressed?

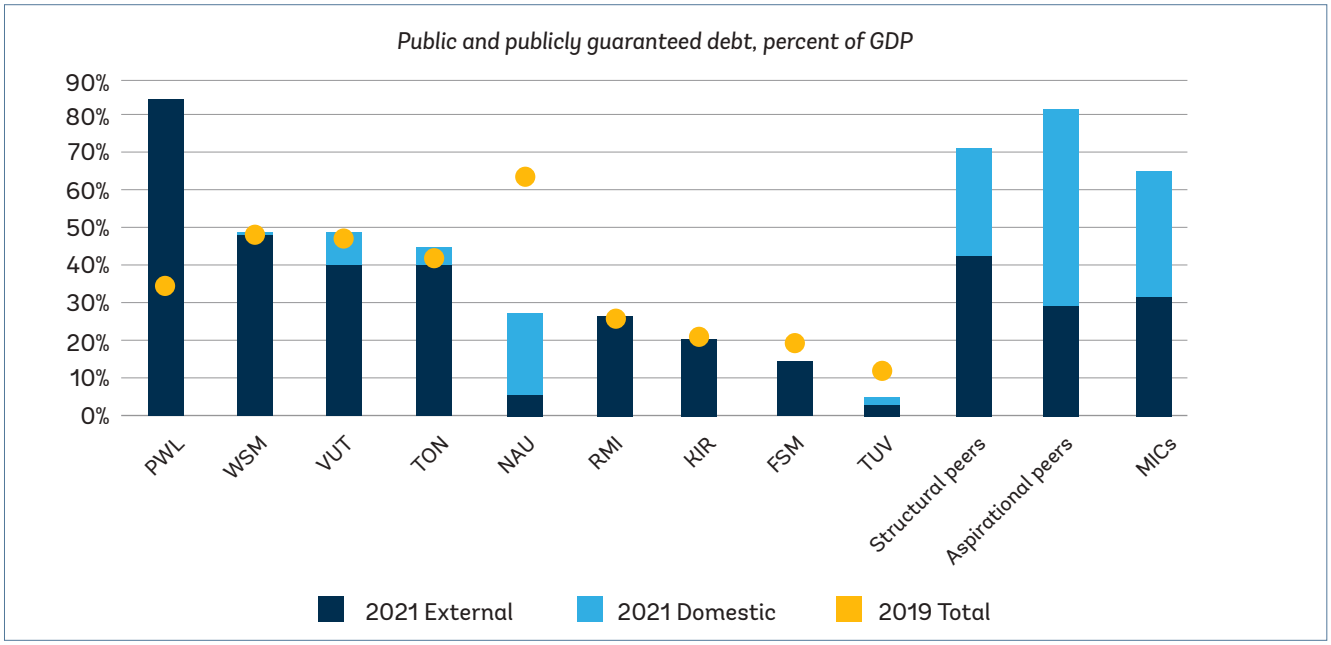
1.4.1 Public debt levels have remained modest across the PIC-9 (except Palau), though small revenue bases mean debt distress risks remain elevated

Prior to the pandemic, the public debt to GDP ratio across the PIC-9 was generally on a downward trend and was lower than in comparator countries (Figure 1.27). Even in those countries where the debt ratio rose during the period (Vanuatu and Kiribati), the overall debt burden remained low compared to peer countries. Given shallow domestic financial markets and a lack of access to international capital markets, most PIC-9 public debt is multilateral or bilateral external debt at highly concessional terms. In seven of the PIC-9, more than half of the debt stock is from multilateral institutions, primarily the ADB and World Bank. The exceptions are Tonga and Vanuatu, where loans from the China Export-Import Bank represent 49 and 30 percent of the debt stock (in Vanuatu, a further 16 percent of the debt stock is to the Japan International Cooperation Agency).

26. Further reforms to limit the use of withdrawals (to only infrastructure, education, and health spending, for example) and reduce the procyclicality and volatility of the withdrawal rule would strengthen fiscal management and sustainability further.

Debt levels in some of the PIC-9 have increased during the pandemic but remain at modest levels, apart from Palau (Figure 1.27). Prior to the pandemic, PIC-9 public debt as a percent of GDP was low compared to peers and had been stable or falling for most countries. Between FY19 and FY21, debt continued to decline in several countries (Kiribati, RMI, FSM, Nauru, Tuvalu) despite the impacts of the pandemic, largely due to resilient fishing revenues and the substantial increase in development partner grants.[27] In Samoa, Tonga, and Vanuatu, debt increased by around three percentage points of GDP, due to declining GDP and increased borrowing to cover shortfalls in government revenues and COVID-19-related spending. Nevertheless, debt ratios remain well below those of comparator countries, and below the seven-percentage points of GDP increase in average debt levels across all World Bank International Development Association (IDA) countries. In comparison, Palau's debt ratio increased from 33 percent in FY19 to almost 85 percent in FY21, due to a sharp decline in output of the tourism-based economy, combined with large concessional external loans from ADB and Taiwan, China, to close the substantial financing gap created by the pandemic.

Figure 1.27: PIC-9 public debt is lower than peers and has increased only modestly during the pandemic



Source: IMF AIV (several), government budgets and World Bank staff calculations.

27. In Nauru, the decline was due to the recommencement of the RPC and the settlement of the long-defaulted Yen-denominated bonds for which the government was a guarantor.

While public debt levels as a share of GDP remain modest across most of the region, the PIC-9's economic geography and volatile revenue bases mean debt distress risks remain elevated (Table 1.5). Despite the modest debt levels, the IMF/World Bank Low-Income Country Debt Sustainability Analysis (LIC-DSA) rates six of the PIC-9 at a 'high risk' of debt distress, and rates Vanuatu at a 'medium risk'. In addition, the 2021 IMF Market-Access Country (MAC) DSAs for Palau and Nauru rated the countries' debt as sustainable, but that risks to debt sustainability in Palau had increased substantially.[28] The high-risk classification is driven by the region's structural constraints to economic growth and narrow and volatile revenue bases, which limit the nations' capacity to service debt. These characteristics are compounded by the impacts of natural disasters, which are assumed to lower potential growth and increase fiscal and current account deficits in the DSA framework. To help improve debt sustainability, the seven PIC-9 countries that are members of IDA (i.e., excluding Palau and Nauru) have a non-concessional external borrowing ceiling as part of the World Bank's Sustainable Development Financing Policy (SDFP).[29] Several of the PIC-9 also have borrowing ceilings or targets as part of domestic legislation or fiscal rules (RMI, Samoa, Tonga, Vanuatu). In addition, Samoa and Tonga have adopted medium-term debt strategies to guide debt management decisions.

Table 1.5: Evolution of PIC-9 DSA risk ratings

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Kiribati	H	H	H	H	H	H	H	H	H	H
RMI	n/a	n/a	H	H	H	H	H	H	H	H
FSM	n/a	n/a	n/a	H	H	H	H	H	H	H
Palau[i]	n/a	n/a	S	S	S	S	S	S	S	S
Nauru[i]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	U	S
Samoa	M	H	H	M	M	H	H	H	H	H
Tonga	H	M	M	M	M	M	H	H	H	H
Tuvalu	n/a	n/a	H	H	H	H	H	H	H	H
Vanuatu	L	L	L	M	M	M	M	M	M	M

Note: (i) Palau and Nauru are assessed using the MAC-DSA while the remaining seven countries are assessed using the LIC-DSA. While the former gives ratings of Unsustainable (U) or Sustainable (S) debt, the latter gives ratings of Low (L), Medium (M), or High (H) risk of debt distress.

28. Nauru's MAC-DSA rating was upgraded to 'Sustainable' in 2021 following the resolution of the long-defaulted Yen-denominated Eurobonds, which reduced the debt stock by $A 40.5 million (24 percent of GDP).

29. The ADB has a similar mechanism, with policy actions aligned to those of the SDFP.

The COVID-19 pandemic—followed by overlapping shocks from the war on Ukraine, global inflation, and financial tightening—has magnified the global focus on debt vulnerabilities in developing countries. This has resulted in several initiatives designed to reduce these debt vulnerabilities, such as the DSSI, the Common Framework for Debt Treatment Beyond the DSSI, and the SDFP. In this context, Box 1.4 considers four questions for the seven PIC-9 countries that are assessed using the LIC-DSA framework: (i) how do the terms of multilateral development partner (IDA and ADB) financing affect the nations' debt distress risk ratings; (ii) how strong would economic growth need to be to reduce the nations' debt distress risk ratings; (iii) how much do the LIC-DSA assumptions regarding the impact of natural disasters on the growth, fiscal, and external projections impact the final debt distress risk ratings; and (iv) what would be the impact on the DSA ratings from implementing the tax reforms outlined in Chapter 2?

1.4.2 Long-term external grant financing is required to manage the risk of debt distress while addressing the region's large development needs

Scenario analysis highlights that long-term external grant financing is crucial to manage the risk of debt distress across the PIC-9, while supporting a green, resilient, and inclusive recovery. Box 1.4 shows that it is highly unlikely that the countries will be able to raise long-term economic growth to the level required to reduce the risk of debt distress. It also shows that the LIC-DSA assumptions regarding the impact of natural disasters do not drive the high risk rating results. However, they do reduce the region's capacity to service debt, leading to earlier breaches of the DSA thresholds than in the absence of these assumptions. Implementation of the tax reform recommendations outlined in Chapter 2 would improve fiscal sustainability, leading to later breaches of the DSA thresholds. However, the tax reforms alone would not be sufficient to reduce the debt distress risk rating. Finally, the analysis shows that the degree of concessionality of multilateral development partner financing (IDA and the Asian Development Bank (ADB)) is the most important factor for addressing the region's debt vulnerabilities. Indeed, in the absence of 100 percent grant financing from IDA and the ADB, achieving a lower debt risk rating would require a sustained fiscal consolidation of 6–45 percentage points of GDP.[30] Such a dramatic fiscal consolidation is inconsistent with the region's substantial development needs over the medium term.[31] It would also likely have severe negative impacts on economic growth, human capital outcomes, and household welfare—given the public sector's role in service delivery and formal sector employment. This reinforces the need for long-term external grant financing to stabilize debt dynamics, and to support green, resilient, and inclusive development in the Pacific.

30. Since 1990, only 7 percent of countries that have undertaken an IMF-supported program have achieved a three-year fiscal adjustment of 6 percent of GDP or greater.

31. For example, reducing the region's considerable infrastructure gap is estimated to require US$3 billion annually, about 9 percent of GDP until 2030 (ADB 2017). In addition, costal adaptation and retrofitting of existing infrastructure to enhance climate resilience is estimated to require an additional 2–24 percent of GDP across the PIC-9 (World Bank, 2017). Finally, in Tonga, achieving the SDGs only for health, education, WASH, electricity, and roads by 2030 is estimated to require an additional 5 percentage points of GDP of spending annually (IMF and World Bank, 2020). The cost to achieve these selected SDGs in other PIC-9 countries is likely to be similar.

Box 1.4: What would it take to reduce the risk of debt distress in the PIC-9?

What would be required for the seven PIC-9 countries assessed under the LIC-DSA framework to be rated at a lower risk of debt distress? For FSM, RMI, Kiribati, Samoa, Tonga, and Tuvalu, this means an upgrade from high to medium risk of debt distress. For Vanuatu, this means an upgrade from medium to low risk of debt distress. To answer this question, four scenarios are examined to determine the extent to which the scenarios could lead to reduced debt vulnerability:

- **100 percent grant financing scenario.** This assumes the country receives all its future external financing from multilateral development partners (IDA and the ADB) on grant terms, rather than on credit terms.[32]
- **High economic growth scenario.** This scenario estimates the level of economic growth that would be required for the PIC-9 to grow out of their debt vulnerabilities and reduce the risk of debt distress over the 20-year time horizon.
- **Disaster impacts removed from baseline projections.** Since 2018, Pacific LIC-DSAs have incorporated a downward adjustment to growth, fiscal, and external projections to account for the region's vulnerability to natural disasters.[33] In this scenario, these adjustments are removed.
- **Domestic tax reform scenario.** The potential fiscal impact of the tax reform recommendations from Chapter 2 are large (2.4–9.8 percent of GDP for each PIC-9). International evidence suggests that it is rare for a country to achieve and sustain an increase in the tax to GDP ratio exceeding 4 percentage points (Akitoby et al., 2018). Thus, this scenario assumes that the PIC-9 governments gradually implement the reforms recommended in Chapter 2. However, due to capacity constraints and general equilibrium effects, the revenue impact after ten years is assumed to be only half of the estimated potential (as a percent of GDP), and this impact is maintained over the projection period. This assumption seems reasonable because: (i) reforms will take time to fully implement and governments are advised to allow a lag between reform announcements and implementation to socialize reforms and allow taxpayers to prepare accordingly; (ii) implemented reforms take time to realize their revenue impact (e.g., corporate income taxes are filed a year after the business activity takes place); and (iii) several of the PIC-9 already have high tax revenue to GDP ratios relative to peers, so dramatically increasing domestic tax revenue mobilization above current levels would require the PIC-9 to significantly outperform peers.

32. The LIC-DSA framework assumes that IDA and ADB financing is provided on regular credit terms for all years in the projection period for which grant finance has not already been committed. This is consistent with the Guidance Note on the Bank-Fund Debt Sustainability Framework for Low-income Countries, to ensure that the LIC-DSA provides a sound instrument for IDA and ADB's grant allocation mechanisms.

33. 33 The adjustments are based on econometric analysis of the historical frequency, scale and impacts of natural disasters (Lee et al., 2018).

Access to full grant financing from IDA and ADB over the 20-year horizon would reduce debt vulnerability for some, but not all, of the PICs. This scenario results in lower debt vulnerability for RMI, FSM, Samoa, Tonga, and Tuvalu, with ongoing grants helping to maintain the debt burden indicators below the respective thresholds over the 20-year projection horizon. However, for Kiribati and Vanuatu, 100 percent grant access does not reduce the risk of debt distress over the 20-year horizon. This highlights the importance of long-term access to grant financing to support sustainable development in the Pacific.

The increase in economic growth required to reduce debt vulnerabilities is unrealistic. Economic literature and global experience have shown that a key way to reduce debt vulnerability is to accelerate economic growth. Higher growth, in excess of interest rates, lowers the debt to GDP ratio. However, the PIC-9 would need to sustain annual real growth of 2.5–15 percentage points higher than their current potential growth rates (0.6–3.5 percent) to grow out of their debt vulnerabilities and reduce the risk of debt distress. Given the significant constraints imposed by the PIC-9's economic geography, achieving this level of sustained economic growth is unlikely. Indeed, Pacific Possible—a recent major analytical project conducted by the World Bank that assessed the long-term development opportunities and challenges faced by Pacific—estimated that under an ambitious but realistic 'opportunity scenario', average annual growth across the region could accelerate to 1.4–4.0 percent, from 0.7–3.4 percent under a 'Business as Usual' scenario (World Bank, 2017). In this context, it appears highly unlikely that the PIC-9 will be able to grow out of their debt vulnerabilities.

The assumptions regarding the impact of disasters on the DSA projections do not drive the high-risk rating results. However, they do reduce further the region's capacity to service debt, leading to earlier breaches (up to four years earlier across the seven PICs) of the DSA thresholds than in the absence of these assumptions. It should be noted that the adjustments only consider the impact of natural disasters on the macroeconomic framework, not the impact of sea level rise. The latter is extremely challenging to model. Nevertheless, it is likely to result in much greater adjustments to the macroeconomic framework, particularly for atoll nations such as RMI, Kiribati, and Tuvalu, that are at risk of losing substantial land mass, infrastructure, and potentially EEZ area (and hence, fishing revenues) due to sea level rise.

Domestic tax reform is crucial to increase fiscal space but is not sufficient to reduce the risk of debt distress. Implementing the tax reforms outlined in Chapter 2 improves the long-term fiscal balances and reduces long-term debt stocks in all countries. In FSM, Samoa, Tonga, and Tuvalu, this results in a delay in the breaching of the public debt to GDP threshold in the DSA. However, these tax reforms alone are insufficient to reduce the risk of debt distress. This reinforces the point that long-term external grant financing is crucial to manage the risk of debt distress across the PIC-9.

1.4.3 PIC-9 debt vulnerabilities are exacerbated by key fiscal risks

PIC-9 debt vulnerabilities are exacerbated by contingent liability risks, which have increased during the pandemic. In the Pacific, government contingent liabilities generally stem from: (i) borrowing, lending, and guarantees by SOEs; (ii) unfunded pension liabilities from social security schemes; and (iii) damage to government-owned infrastructure due to natural disasters. The risks for PIC-9 governments from (i) has increased considerably during the pandemic, due to the large role of SOEs in the region's economies and the severe disruptions to commercial operations caused by border closures.

SOEs—particularly national airlines and state-owned banks—pose substantial fiscal risks. National airlines provide essential connectivity in the Pacific but generally have poor financial records (Balasundharam et al., 2021). Border closures and mobility restrictions have severely impacted airline and airport revenues, with Pacific governments stepping in to provide financial support. Nevertheless, a recent study estimates that around US$100 million in support will be needed for Pacific airlines and airports to recover from the COVID-19 shock (PRIF, 2020). The lingering effects of the pandemic—combined with higher commodity prices—are also likely to heighten the risk of contingent liabilities for many years, given the potential for long-term scarring to the Pacific tourism sector, which could result in structurally lower revenues amidst higher costs. In the financial sector, a large proportion of the region's state-owned banks are non-licensed development banks that operate outside of supervisory authority. This lack of supervision, combined with a substantial increase in government-subsidized lending by state-owned banks to micro and small businesses to support the economic recovery, has also heightened contingent liability risks to PIC-9 governments. However, there is wide heterogeneity in exposure across the region, with state-owned banks representing 0.3 to 54 percent of total loans outstanding (FSM, Tuvalu, and Palau have the largest proportion of total lending sourced from state-owned banks).

Natural disasters and climate change are also major fiscal risks. For example, between 1981 and 2022 the PIC-9 experienced 50 Category 4 and 5 cyclones. Vanuatu alone was struck 30 times. A Category 5 cyclone has been a 1-in-4 year event in Vanuatu, and a 1-in-6 and 1-in-8 year event in Tonga and Samoa, respectively. In the last decade alone, on six occasions cyclones have caused public sector recovery needs exceeding 20 percent of GDP in Vanuatu, Tonga, Samoa, and Tuvalu, placing considerable strain on public finances, and necessitating significant additional aid and spending reprioritization.[34] Sea level rise also poses an existential threat to the region, particularly the atoll nations of Kiribati, RMI, and Tuvalu. The annual cost of coastal and infrastructure adaptation is estimated to range from 2–7 percent of GDP in Samoa to 12–24 percent of GDP in Kiribati (World Bank, 2017). The large public financing needs to enhance resilience and support frequent disaster recovery reinforce the need for long-term, highly concessional aid, and to strengthen medium-term fiscal frameworks.

Climate change also poses a fiscal risk through its impact on fish migration patterns, and hence, fishing revenues. Oceanographic changes linked to warming seas are predicted to alter tuna migration patterns and mortality rates, leading to a lower tuna biomass in the Pacific and a shift eastward. This is projected to result in a 9–26 percent decline in biomass by 2050 in the EEZ's of FSM, RMI, Palau, Tuvalu, and Nauru (Conservation International, 2018). Of the PIC-9, only Kiribati is expected to benefit, with tuna volumes rising by 15 percent. These changes will have uneven impacts on fishing revenues and are likely to increase their volatility, exacerbating fiscal risks. Chapter 2 outlines options to reduce revenue volatility and maximize the long-term benefits from fisheries resources through enhanced regional cooperation.

Policy choices to address high global commodity prices can exacerbate fiscal risks and reinforce the need to develop nascent formal social protection systems. Import dependence makes the PIC-9 susceptible to global commodity price shocks. For example, elevated prices due to the war on Ukraine have translated into higher import bills, public spending, and inflation, with inflation hitting double digits in 2022 in several of the PIC-9. In response, some governments have provided short term support to vulnerable households via existing social assistance mechanisms, as was done in response to the pandemic and recent natural disasters. This highlights the value of developing strong social protection systems that can expand and contract in response to shocks (Chapter 5). PIC-9 governments have also tried to mitigate the impact of higher prices via temporary exemptions to import duties on specific products, subsidies, fee waivers, and price caps on staple goods. The first erodes domestic revenues. Absent strong targeting, the second and third can be very expensive, crowding out public spending on essential services. The fourth can lead to black markets, potentially creating shortages that hurt the poor the most. All four undermine price signals and the function of markets, making them highly inefficient. Adaptive social protection avoids these inefficiencies by increasing the purchasing power of targeted households. However, given the nascent nature of social protection systems, in the short term, PIC-9 governments may be forced to utilize other interventions that allow for quasi-targeting of the most vulnerable. Utility fee moratoria or waivers for specific users may be the most cost-effective, combined with public provision of key staple goods (i.e., water, flour) via geographic targeting and community-based selection of beneficiary households.

34. This is in addition to other natural disasters that have affected the region, such as the Hunga Tonga-Hunga Ha'apai volcano and tsunami that struck Tonga in 2022, causing public financing needs of over 37 percent of GDP.

1.4.4 Improved monitoring, adopting basic fiscal transparency principles, and stronger medium-term fiscal frameworks can help to contain fiscal risks

Contingent liabilities are not precisely measured or monitored across most of the region due to data and capacity constraints. Most PIC-9 governments do not have a comprehensive, regularly updated database of guaranteed and non-guaranteed SOE debt (Samoa is the exception). This is due to a combination of incomplete legislative frameworks in some countries, and a lack of capacity for regular monitoring. While guaranteed and non-guaranteed SOE debt is reportedly low across the PIC-9 (except in Palau, where it is around 11 percent of GDP), the lack of comprehensive and regular reporting and monitoring increases fiscal risk on the government. Furthermore, most PIC-9 governments also lack a comprehensive and regularly updated public asset register. This makes it difficult to identify and quantify the potential contingent liabilities emanating from damage to public assets due to a natural disaster. Insurance on public assets is also underutilized, largely due to a lack of suitably priced options (although there is also a lack of demand in some contexts).

Adopting good international practices can help the PIC-9 governments to contain fiscal risks. The IMF's Fiscal Transparency Code (IMF, 2019c) provides guidelines on the publication of fiscal risk information, specifically guarantees. It requires specific risks to public finances to be regularly monitored, disclosed, and managed. For SOE management, good international practice include: (i) a strong legislative framework defining clearly the ownership, governance, and dividend policy; (ii) corporate plans approved by the government detailing borrowing and investment plans, leases, and proposed guarantees; (iii) SOEs being required to provide early notification to government of any anticipated significant deviation from their corporate plan; and (iv) holding the board accountable for good governance and performance of their mandate and responsibilities.[35] Regarding natural disaster contingent liabilities, a comprehensive and regularly updated public asset register can help governments to: (i) determine the value of public assets; (ii) strengthen the linkages between capital and recurrent spending; (iii) identify and quantify risks; (iv) explore options to insure more public assets; and (v) make informed decisions on reducing the vulnerabilities of assets and therefore the cost for maintenance, retrofitting, and recovery—thereby reducing contingent liabilities following a disaster. Given persistent capacity constraints, adopting these measures will likely require long-term capacity substitution from development partners.

35. The SDFP has supported the development of government guarantee policies in Tonga and Samoa and an on-lending policy in Samoa and will support reporting on fiscal risks in Tuvalu during FY23. These policies will help improve the monitoring and management of outstanding and new applications for government guarantees and on-lending, and the associated fiscal risks.

Strengthening medium-term fiscal frameworks can help to manage the fiscal risks from natural disasters, climate change, and volatile sovereign rents, along with the elevated risk of debt distress. PIC-9 governments cannot fully mitigate the economic and fiscal risks of external shocks (natural disasters, global commodity prices, and volatile aid flows). However, a consistent and regularly updated medium-term fiscal framework—comprising strategies for revenue, expenditure, and debt—can help to reduce the impact of volatile revenues, prioritize spending, and strengthen fiscal and debt sustainability in the face of these shocks. Medium-term revenue strategies (MTRS) should focus on increasing domestic revenues, improving tax efficiency and equity, and improving revenue forecasting (including credible estimates of the impact of revenue reforms and credible projections of non-tax revenue for the seven PIC-9 with sizeable sovereign rents). Medium-term expenditure frameworks (MTEF) can help to prioritize spending and key investments, particularly to enhance climate resilience, and link capital and current spending. MTRS and MTEF should also be linked to fiscal rules to manage windfall revenues, including rules on SWF accumulation and withdrawal. Finally, these should be placed within the context of a medium-term debt strategy, to ensure that the overall fiscal strategy is sustainable, debt-related risks are managed, and contingent liabilities are monitored with sufficient buffers set aside. Many of the recommendations in this report could be important components of PIC-9 MTRS and MTEF exercises.

1.5 Could the PIC-9 have the fiscal space to finance additional human capital spending over the next 20 years?

The evidence suggests that improving human capital in the PIC-9 will require either higher levels of spending (relative to the already high levels of pre-pandemic spending) or greater spending efficiency (Box 1.2). This section analyses the extent to which the PIC-9 are expected to have the fiscal space to finance additional human capital spending. It does this by estimating various scenarios for domestic revenues, donor grants, government expenditures, and trust fund flows. Combined, these scenarios provide quantitative estimates of the range of likely fiscal balances for the PIC-9 over the coming 20 years (Box 1.5).

Box 1.5: Long-term fiscal projections for the PIC-9

This analysis considers possible trajectories for fiscal flows from 2022 through to 2041 under a set of plausible scenarios. The scenarios model alternative assumptions regarding the future path of sovereign rents, trust fund drawdowns, grant aid flows, and public expenditures. Combining these scenarios generates a set of potential trajectories for the overall fiscal balance.

A 'baseline' trajectory for key fiscal flows and overall economic growth for each country is taken from the most recent IMF- World Bank LIC DSA and the IMF World Economic Outlook (WEO) projections from October 2022. Baseline projections that are not available in all the LIC DSAs, such as trust fund drawdowns and sovereign rents, are provided by the World Bank country economists. These consider available country data and forecasts, as well as in-country discussions with the government and other stakeholders. Note that while they are termed 'baseline' projections, in many cases they are quite ambitious in terms of their assumptions around the PIC-9's capacity to mobilize domestic revenue and achieve fiscal consolidation via expenditure restraint. The scenarios modeled on the historical average of specific indicators are based on data through to 2020, to avoid biasing the average by including the impacts of the pandemic. The projections run from 2022 through to 2041.

For each of the PIC-9, the following scenarios for fiscal flows are modeled:

Public expenditures

- Baseline expenditure to GDP projections from the current DSA
- Expenditure to GDP maintained at its ten-year historical average

Grant aid flows

- Baseline grant aid to GDP projections from the current DSA
- Grant aid to GDP maintained at its five-year historical average
- Real US$ grant aid held constant at its three-year historical average

Sovereign rents (only for Kiribati, RMI, FSM, Nauru, Palau, Tuvalu, and Vanuatu)

- Baseline sovereign rents-to-GDP projections from the current DSA
- Sovereign rents to GDP maintained at their five-year historical average
- Real US$ sovereign rents held constant at their three-year historical average

Trust fund drawdowns (only for Kiribati, RMI, FSM, and Palau)

- Baseline annual disbursements to GDP projections from the current DSA
- Annual disbursements that preserve the current real per capita asset value over the projection period.

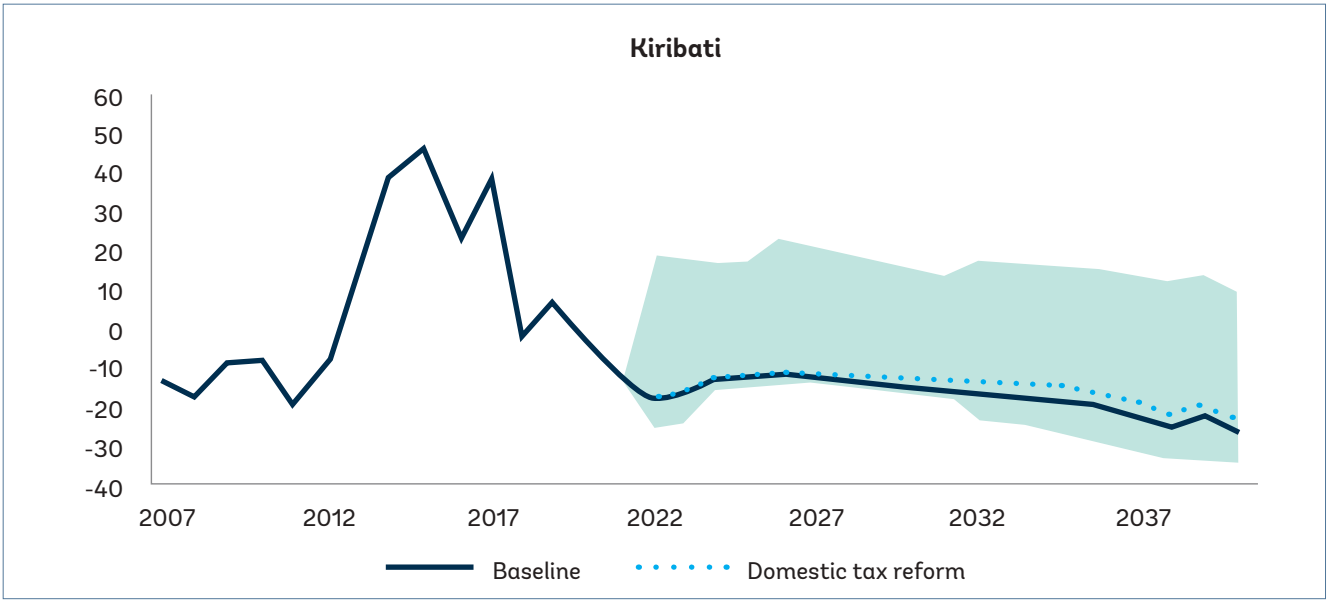
In addition, a 'tax reform' scenario is modeled, highlighting the potential impact on fiscal balances of PIC-9 governments implementing the tax reform measures identified in Chapter 2. As in Box 1.4, the reforms are assumed to be implemented gradually, achieving half of the estimated potential revenue impact (as a percent of GDP) after ten years and sustaining this improvement over the forecast horizon.

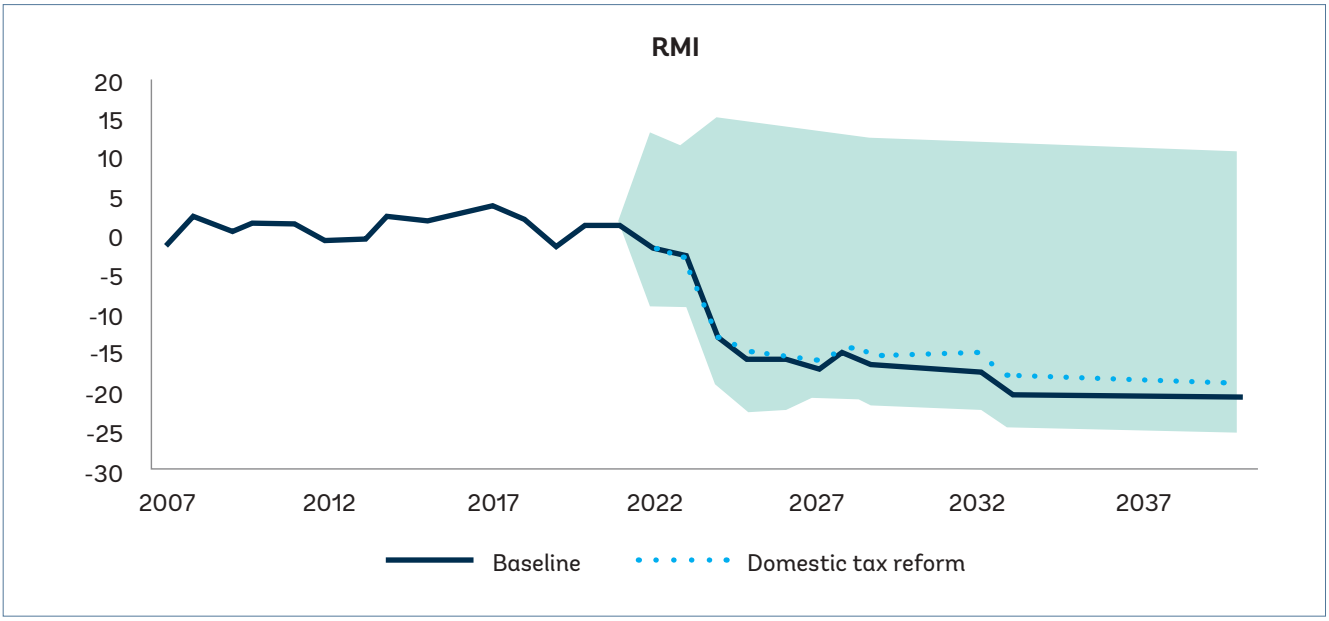
The modeling exercise suggests that the PIC-9 are likely to face significant fiscal challenges over the coming 20 years and have limited capacity to finance additional spending (Figure 1.28). Baseline projections suggest ongoing annual fiscal deficits for all the PIC-9, except Palau and Nauru. In some cases, the deficit is projected to widen over the projection period (Kiribati, RMI, and Samoa). In all cases (except Palau), the baseline fiscal balances are projected to be worse than the historical trend, reflecting: (i) higher spending needs to achieve key development and climate resilience goals; and (ii) lower grant receipts, consistent with the IMF-World Bank LIC DSA guidance that uncommitted future multilateral financing is included on regular credit terms (Box 1.4). Implementing the domestic tax reforms outlined in Chapter 2 are necessary to create fiscal space that can be used to rebuild fiscal buffers and finance the region's long-term development priorities and enhance resilience to climate change. However, these tax reforms alone are insufficient to bridge the region's large financing needs.

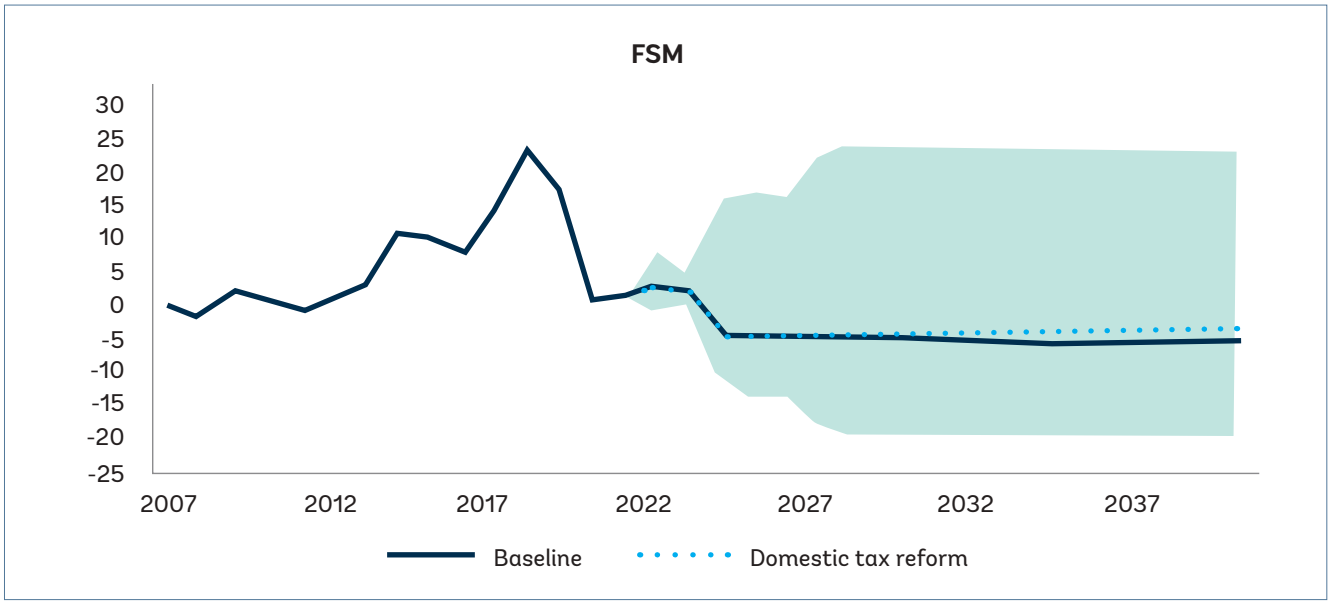
Fiscal surpluses are possible under alternative scenarios, however, these outcomes are highly uncertain. In general, surpluses are possible under scenarios where: (i) spending remains contained at around average historical levels (as a percent of GDP)—lower than baseline projections; and (ii) grants remain similar to average historical levels (as a percent of GDP)—substantially higher than in the baseline scenario. For those countries with sizeable sovereign rents, scenarios where these rents remain at average historical levels (as a percent of GDP) also generate improved fiscal outcomes over the projection period. However, the long-term level of aid and sovereign rents are uncertain and highly volatile, meaning there is a high degree of uncertainty that the countries could achieve these fiscal surplus outcomes.

Figure 1.28: PIC-9 projected fiscal balances, FY22–FY41

Percent of GDP






FSM
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2007
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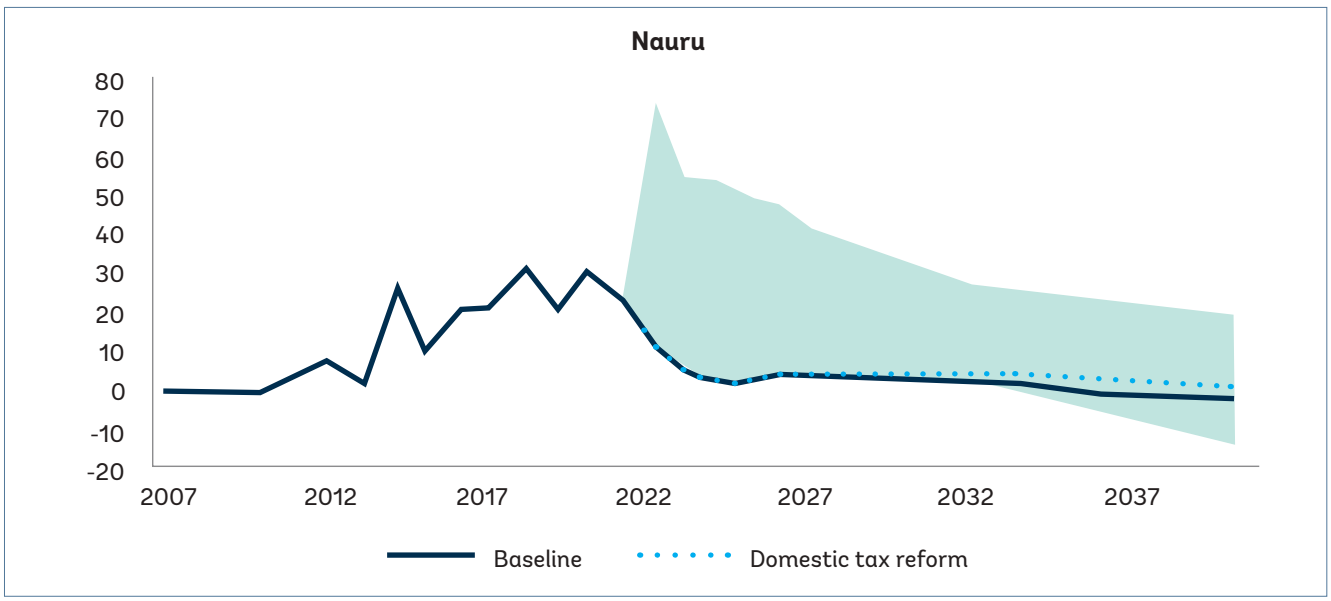
Baseline
Domestic tax reform


Nauru
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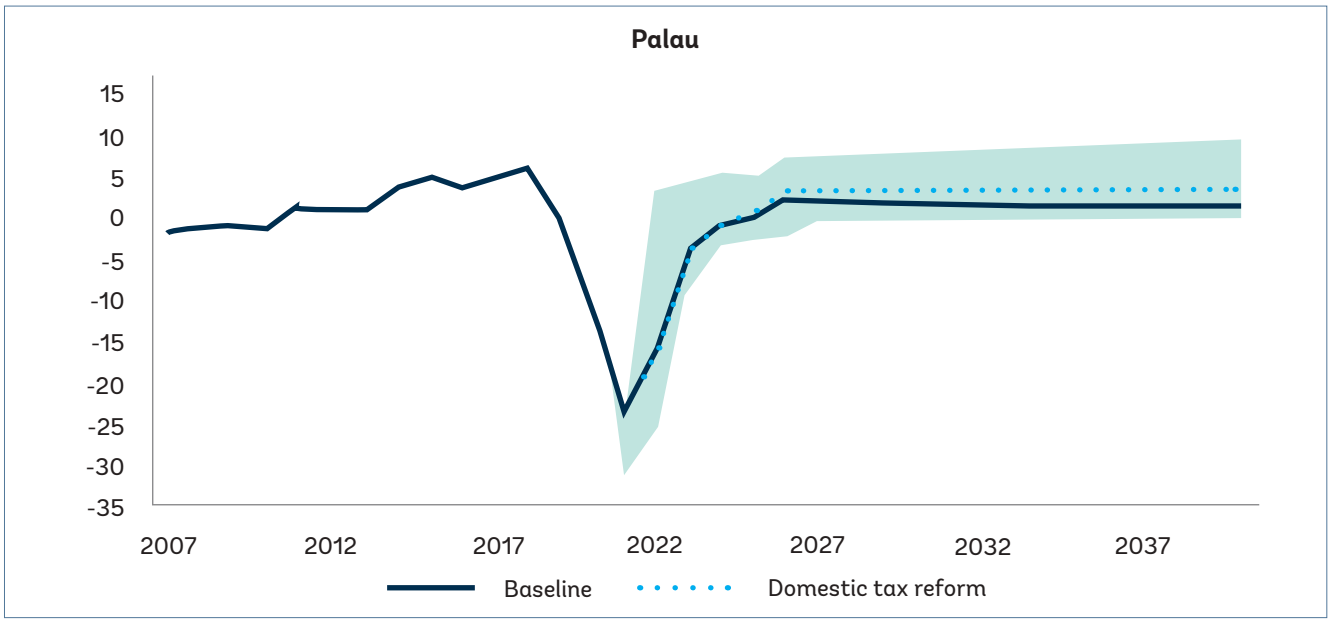
Baseline
Domestic tax reform


Palau
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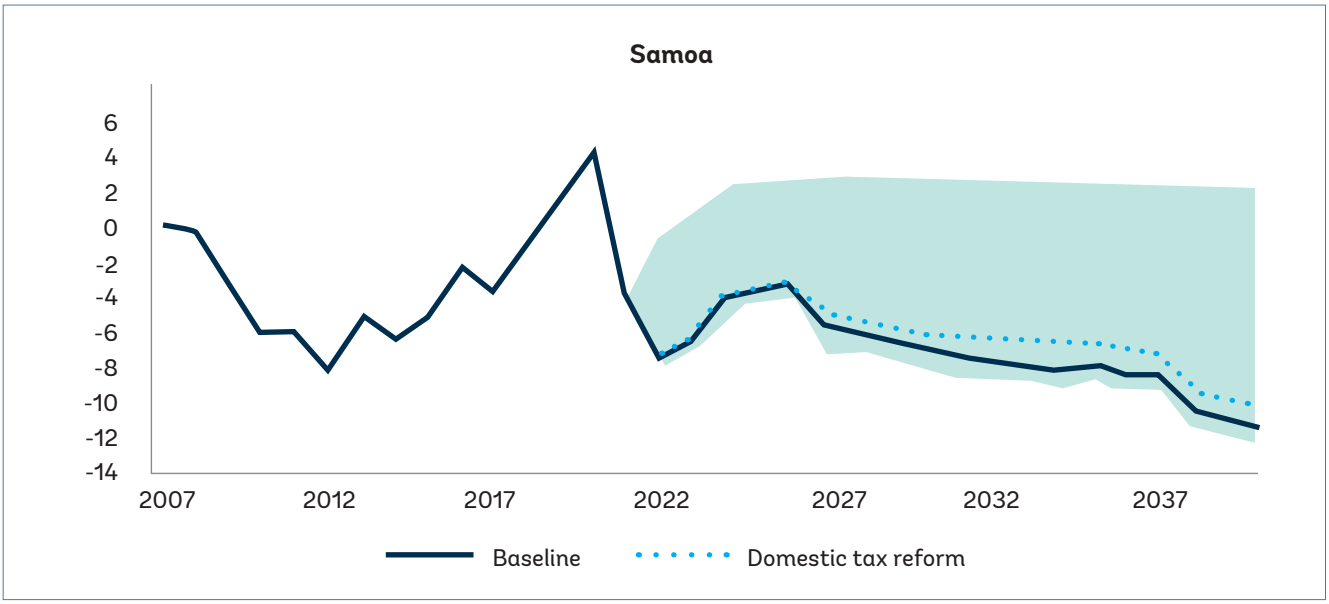
Samoa
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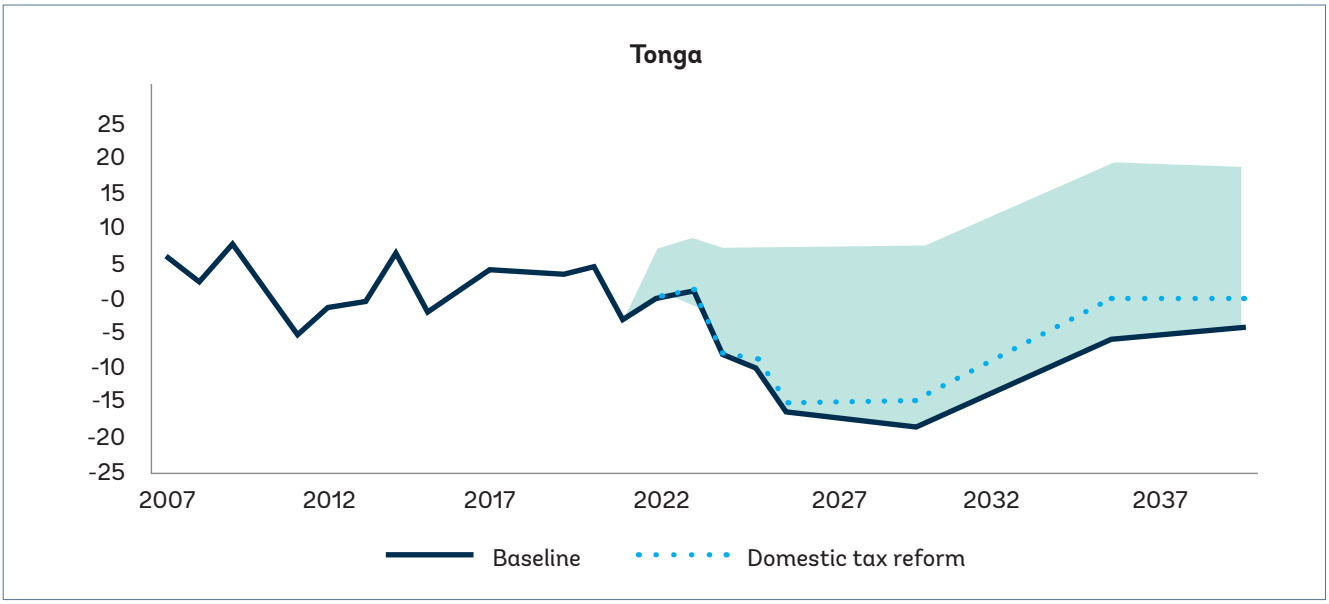
Domestic tax reform


Tonga
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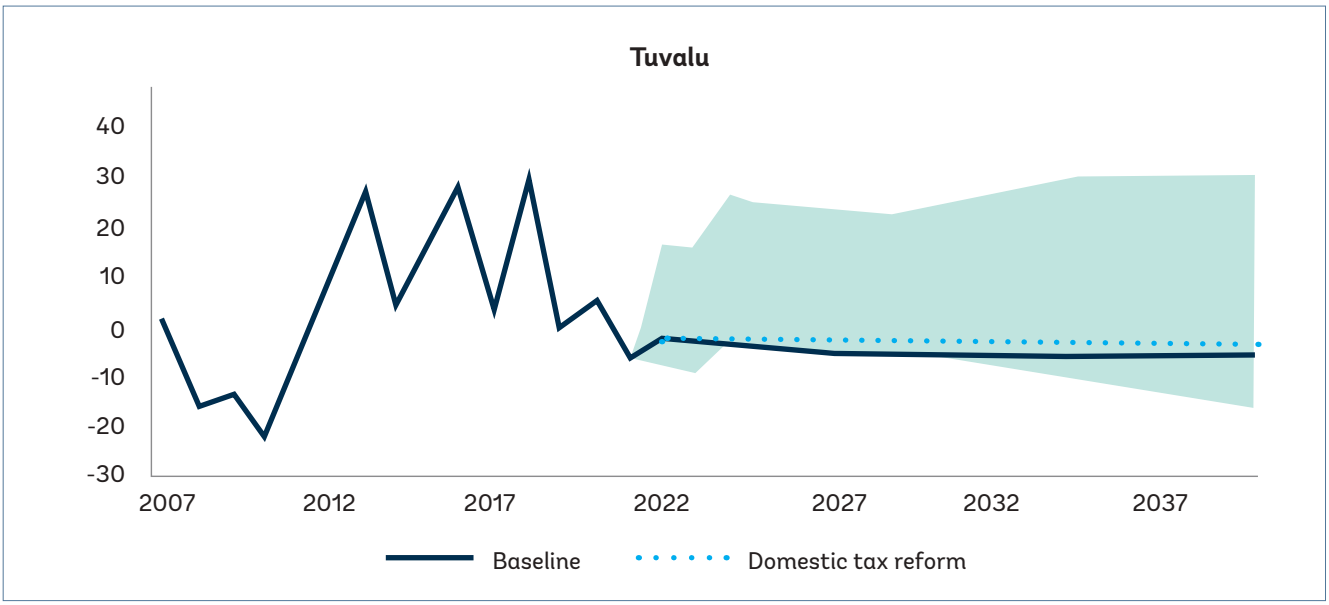
Domestic tax reform


Tuvalu
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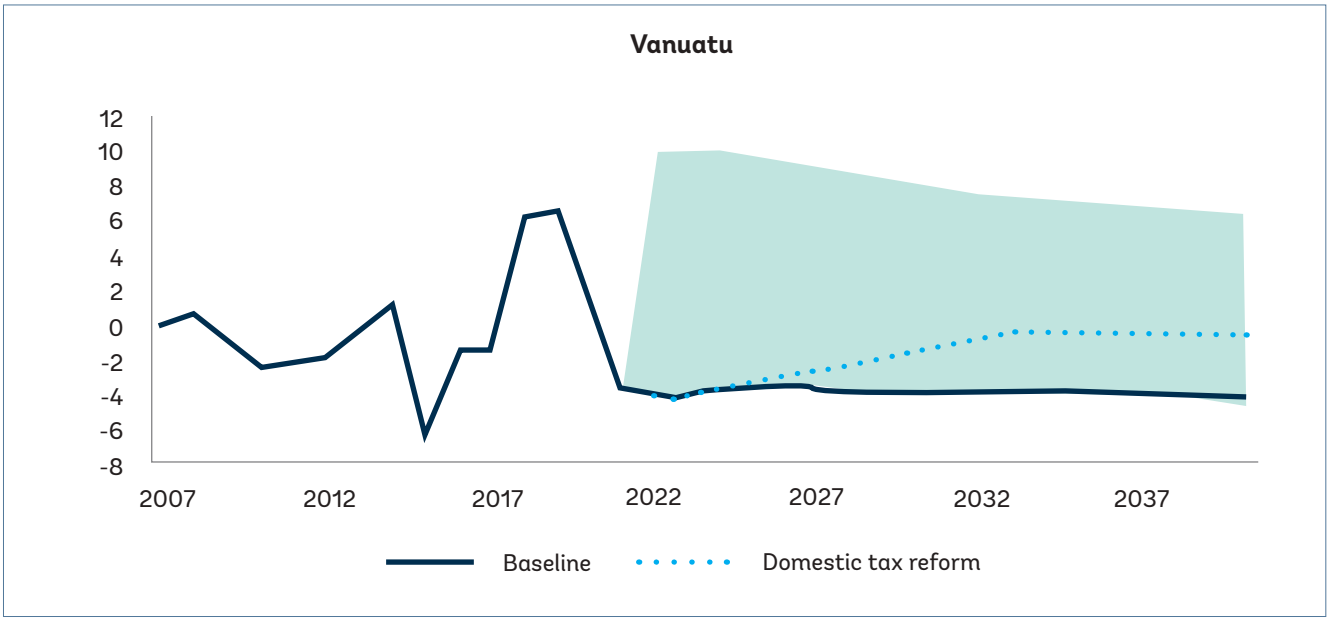
Baseline
Domestic tax reform



Note: The black line denotes the fiscal balance consistent with baseline DSA revenues, expenditures, and grants. The aqua region represents the range of fiscal outcomes arising from all scenario combinations. The blue dashed line represents the fiscal balance under the domestic tax reform scenario.

1.6 How can the PIC-9 enhance fiscal sustainability?

This chapter highlights the unique structural characteristics of the PIC-9 and how these have shaped recent fiscal dynamics. The analysis indicates that the PIC-9's unique economic geography leads to higher costs for the delivery of public goods and services (even relative to comparator countries), a large role for the public sector in core areas of the economy, and a narrow revenue base. These factors lead to structural fiscal deficits, which are financed by grants and concessional loans from development partners. The analysis also shows that, despite higher growth, booming sovereign rents in six of the PIC-9, and improved fiscal positions prior to the pandemic—aid dependence remains structural and has increased since the onset of the pandemic. However, as the region emerges from the pandemic, aid is likely to return to pre-crisis levels (as a percent of GDP). Increasing domestic revenue collection is thus crucial to restore fiscal buffers and create fiscal space for PIC-9 governments to support a green, resilient, and inclusive recovery. This would also require the PIC-9 to outperform their peer countries in terms of revenue mobilization. Given the region's limited implementation capacity, reform efforts should focus on a limited set of prioritized actions that can deliver the largest revenue gains with existing capabilities. Chapter 2 explores options for how the PIC-9 can maximize revenue collection within these constraints.

Improved capacity for revenue forecasting, rules to manage windfall revenues, and stronger medium-term fiscal frameworks can support long-term fiscal sustainability and improve the quality of spending. The PIC-9's sovereign rents are inherently volatile. Mitigating the negative impacts of this volatility, while maximizing the benefits of the additional revenues, is thus a key challenge. Investing in improved capacity for revenue forecasting is the first step. This involves training for officials from the agency responsible for fisheries management and the Ministry of Finance. Improved coordination and information sharing between these agencies can also improve revenue forecasting. Second, fiscal rules can help to break the link between volatile revenues and large fluctuations in spending. The design of such rules will depend on the country context and development objectives. Regardless of design, the key feature should be to anchor annual spending to a pre-determined level or ratio, with any windfall revenues above the level assumed in the budget being saved, preferably in a SWF. Finally, strengthening medium-term fiscal frameworks can also help to: (i) internalize the trade off between additional spending now versus saving for the future; and (ii) improve the quality of spending by ensuring that additional resources are directed to the highest priority spending areas. Along with improving revenue forecasting, this can be achieved by adopting a long-term fiscal strategy that aligns with the national development goals and strengthening expenditure controls.

SWFs are key instruments to support long-term fiscal sustainability in several countries, but stronger accumulation rules and governance are required to delink spending from revenue windfalls (Table 1.6). Six of the PIC-9 have large SWFs which play a prominent role in terms of long-term fiscal buffers. Five of the six have also benefited from a structural increase in sovereign rents. Of the countries with large sovereign rents, only Vanuatu does not have a SWF. The country could consider establishing a SWF financed by revenues from its Economic Citizenship Program. While withdrawal rules are relatively stringent in most countries, accumulation rules are generally weak, leading to pro-cyclical spending—particularly in Kiribati and Tuvalu. Within the region, FSM and Nauru provide good practice examples of effective accumulation rules that can help to delink spending from revenue windfalls. Furthermore, experience shows that PIC SWFs are most effective when there is strong governance and the operational rules are simple, transparent, and limit discretion.

Public spending on health and education is high compared to peers and the region's level of development, while spending on social protection is generally low. Cross country comparisons show that PIC-9 governments have historically allocated more resources to the health and education sectors than peer countries, both relative to GDP and as a percent of total spending. In comparison, public spending on social protection across most of the PIC-9 is limited. The exceptions are RMI and Kiribati, where copra subsidies and unemployment benefits (Kiribati) represent sizeable expenditure items.

Evidence suggests that improving human development outcomes in the PIC-9 will require either higher levels of spending, or that the countries improve their public spending efficiency. Despite higher social sector spending, the PIC-9 continue to underperform their peers on key education, health, and social outcomes. Regression analysis indicates that remoteness, dispersion, and smallness are negatively associated with public spending efficiency in relation to these human capital outcomes. Model results suggest that spending efficiency in some of the PIC-9 may be slightly better than would be expected, given their geographic characteristics. This suggests that to achieve similar human development outcomes as their peers, the PIC-9 need to either: (i) outperform their peers in terms of public spending efficiency, to compensate for the extreme nature of the geographic constraints that they face; or (ii) increase social sector spending.

While debt levels remain modest by global standards (aside from Palau), the PIC-9's narrow and volatile revenue bases mean debt distress risks remain elevated. Debt sustainability analysis simulations indicate that it is also highly unlikely that the region will be able to achieve and sustain the very high rates of growth required to grow out of their debt vulnerabilities. LIC-DSA assumptions regarding the impact of natural disasters on the growth, fiscal, and external projections also do not drive the final debt distress risk ratings. Debt vulnerabilities are exacerbated by contingent liability risks, which increased during the pandemic. SOEs—particularly national airlines and state-owned banks—pose the greatest fiscal risks. Adopting good international practices can help to contain these risks. Across the region, first order priorities include strengthening the monitoring and management of guaranteed and non-guaranteed SOE debt, SOE corporate governance, and public asset registries (to quantify and mitigate the potential contingent liabilities emanating from damage to public assets due to a natural disaster).

Simulations of long-term government finances indicate that continued access to grant financing and fiscal consolidation are required to protect fiscal sustainability across the region. Seven of the PIC-9 are already at a high risk of debt distress and several countries have run down fiscal buffers to finance recent expansionary fiscal policy. Long-term access to grants and a medium-term fiscal adjustment are needed to support growth and address the region's large climate and development spending needs, while managing the risk of debt distress and rebuilding fiscal buffers to prepare for future shocks. Some of the fiscal consolidation will happen automatically, as domestic revenues rebound in line with the economic recovery, and as COVID-19, the war on Ukraine, and disaster-related stimulus measures are unwound. However, additional measures will be needed to create the fiscal space required to address the region's pressing development goals, including to build human capital.

Given the PIC-9's limited capacity to finance additional spending, improvements in human capital outcomes will need to come from increased spending efficiency. The education and health sectors already account for a high proportion of spending across the PIC-9. This means that it is unlikely that governments will be able or willing to increase social spending via reallocation from other sectors. Improving human capital outcomes will thus require efforts to improve the efficiency of sector spending within the existing allocations. In contrast, fledgling social protection systems across the region require additional spending to expand coverage and improve foundational social assistance delivery systems. This could be financed from increased domestic revenues. In this context, Chapter 2 analyses the opportunities to maximize domestic revenue mobilization; Chapters 3 and 4 analyze options to improve public spending efficiency in the education and health sectors; and Chapter 5 assesses the adequacy and efficiency of current social protection spending and highlights the benefits and trade-offs of the PIC-9 investing in a more comprehensive social protection system.

Table 1.6: Summary of key public financial management policy recommendations

Country	Policy Action	Recommended Timing
Kiribati	Consider establishing a Sovereign Wealth Fund accumulation rule to reduce procyclicality of public spending	*Medium term (2–4 years)*
RMI	Seek reform to CTF distribution rule as part of COFA negotiations to mitigate against market volatility resulting in unstable annual distributions	*Short term (<2 years)*
FSM	Seek reform to CTF distribution rule as part of COFA negotiations to mitigate against market volatility resulting in unstable annual distributions	*Short term*
Tuvalu	Consider establishing a Sovereign Wealth Fund accumulation rule to reduce procyclicality of public spending	*Medium term*
Vanuatu	Consider establishing a Sovereign Wealth Fund financed by revenues from the Economic Citizenship Program	*Short term*

2. Revenue

2. Revenue

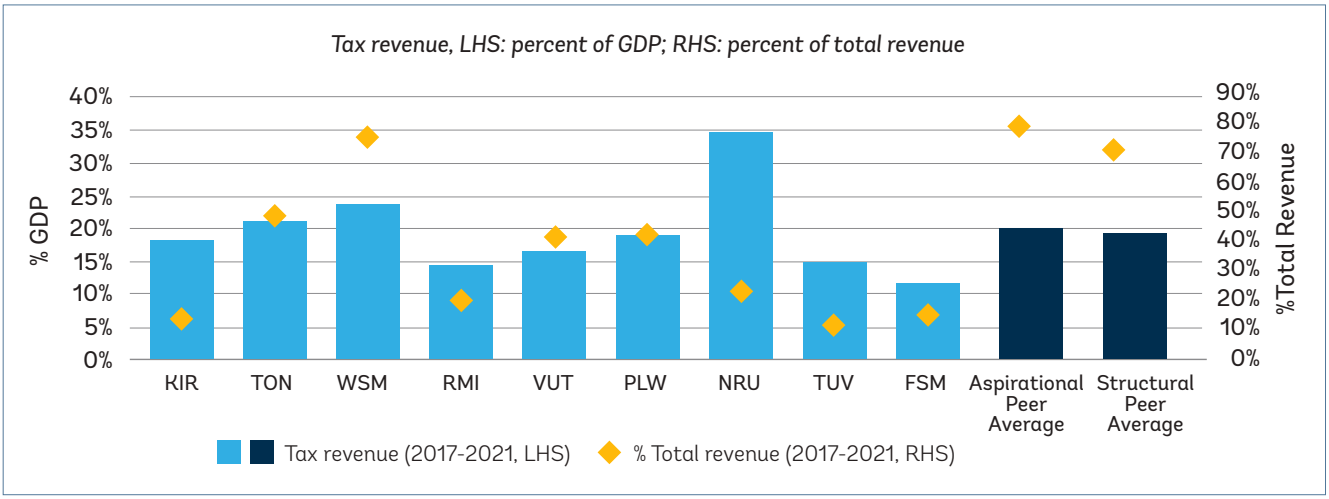
2.1 Introduction

This chapter analyzes the PIC-9 countries' revenue performance, focusing on indirect and direct taxation and sovereign rents. This chapter has two main objectives: (i) undertake a high-level diagnostic of the performance of the revenue system focusing on its key constituents; (ii) use insights from the diagnostic and other sources to identify key revenue reforms that the PIC-9 countries may consider undertaking as part of a medium-term revenue strategy that is tied with these countries' broader medium-term fiscal frameworks discussed in Chapter 1. Revenue reforms are primarily intended to create additional fiscal space, which can help replenish and build-up fiscal buffers in a region that is highly exposed to natural disasters, health emergencies, and other economic shocks. Revenue reforms can also play a critical role in reducing the inefficiencies associated with the tax system, thereby supporting economic growth, and improving taxation's fairness, progressivity, and support for broader development policy goals such as human capital formation.

2.2 How did revenue perform prior to the COVID-19 crisis?

Tax collection across the PIC-9 makes up a smaller share of total revenue than in peer countries. This is most evident with Kiribati, FSM, Nauru, RMI, and Tuvalu (Figure 2.1). Samoa is the exception within the PIC-9, collecting approximately three-quarters of its total revenue through taxes, which is above the average for structural peers (approximately 72.2 percent) but below the average for aspirational peers (approximately 80.0 percent).

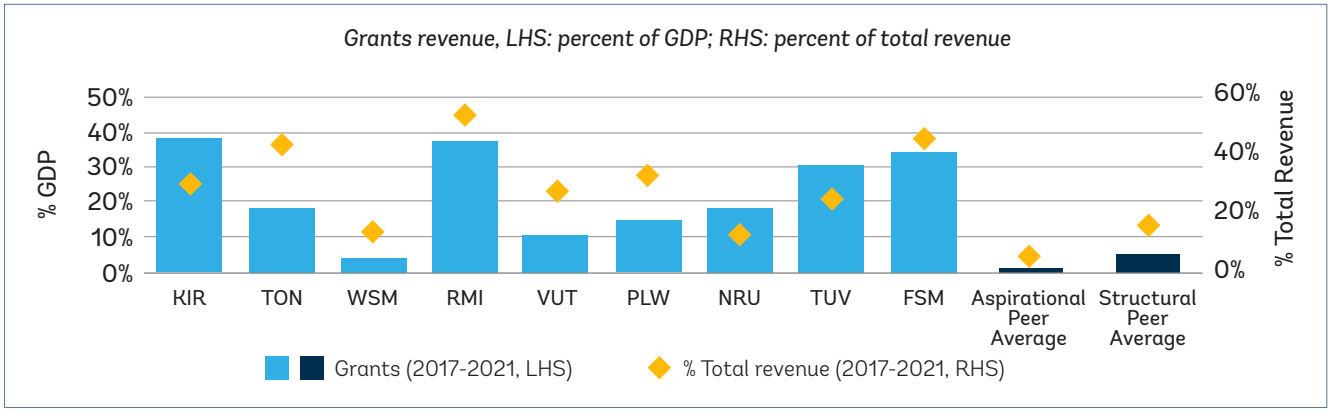
Figure 2.1: Taxes in the PIC-9 represent a smaller share of total revenue than peers



Source: Country data, UNU Wider.

In part, the smaller share of tax to total revenue is due to the PIC-9's high reliance on sovereign rents and grant revenue. Both as a share of GDP, and as a share of total revenue, grants are much higher in the PIC-9 than with most comparator countries (Figure 2.2). However, these grants depend on the political will of other countries to come to the PIC-9 countries' assistance and can be highly unstable, fluctuating from year to year. Kiribati, FSM, and RMI received on average between 2017–2021 the highest grants as a share of GDP, and along with Tonga and Palau, these countries' grants also represented some of the highest shares of total revenue recorded. Sovereign rents are similarly high and unstable sources of revenue. These are discussed in greater detail later in this chapter. Samoa is once again the exception within the PIC-9, with no sovereign rents and a much lower dependence on foreign aid.

Figure 2.2: Grants make up a very high share of total revenue

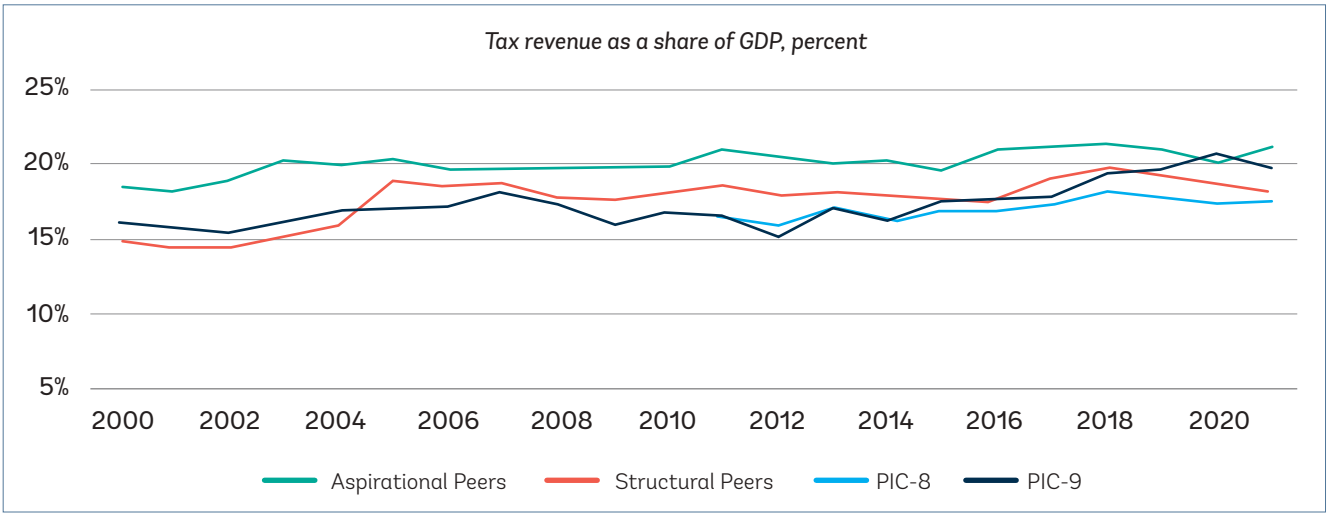


Source: Country data, UNU Wider.

The PIC-9 have historically collected tax revenue on par with middle-income countries and structural peers. At the start of the 21st century, average tax collection for the PIC-9 had reached 16.1 percent of GDP (Figure 2.3). This was approximately the same as the average of upper-middle income countries, but lower than a set of aspirational peers and lower than the average for high-income countries. From 2013 onwards, however, the average PIC-9 tax collection has increased steadily. By 2021, and excluding the high case of Nauru,[1] the tax ratio in the remaining PIC-8 reached an average of 17.5 percent, higher than the average for upper-middle-income countries (at 16.8 percent) that were more impacted by the COVID-19 pandemic. However, the average tax ratio for aspirational peers, at 21.2 percent, demonstrates that there remains room for improved tax collection for most of the PIC-9 countries.

1. Nauru has benefited from recent reforms to the tax code, including the introduction of the employment and services tax in FY2015 and the business profits tax in FY2017, and improved customs and tax administration. See IMF Article IV, 2021 Consultations Report for more information. A significant share of Nauru's business profit and employment services taxes are derived from activities related to The Regional Processing Center (RPC). The Australian government signed a new deal in 2021 with Nauru to continue operating the RPC, hence RPC-related revenues are expected to remain elevated over the medium term.

Figure 2.3: **The PIC-9 average tax collection has increased in recent years**



Source: Country data, UNU Wider.

This benchmarking of the PIC-9's revenue levels suggests that collections are generally adequate by international standards for supporting sustainable provision of public goods and supporting economic growth. Gaspar et al. (2016), find evidence of a growth tipping point for countries that consistently raise revenue above a minimum of 12.75 percent of GDP. Given volatility of tax to GDP ratio, the authors thus argue in support of the recommendation that countries with a low tax ratio "aim for levels of about 15 percent" (Gaspar et al., 2016). Looking at the PIC-9, only FSM and RMI did not collect tax revenue on average between 2016–2021 higher than 15 percent of GDP, though RMI still collected higher than the 12.75 percent minimum threshold.[2]

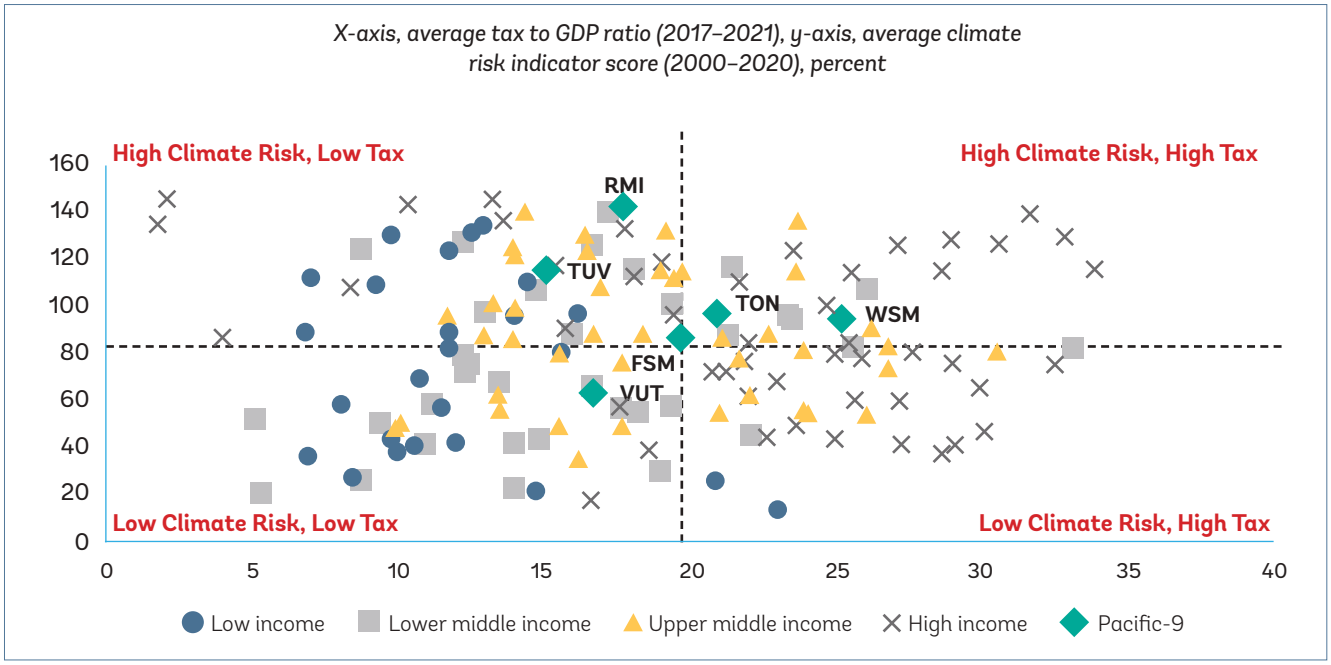
Yet, a larger government role as 'insurer of last resort' and 'lender of last resort' may justify higher-than-minimum revenue collection given the Pacific countries' unique context of remoteness, high exposure to climate disasters, and lack of access to external debt markets. In the aftermath of the COVID-19 pandemic, there has been growing academic research on the role fiscal policy is increasingly playing as 'insurer of last resort', supporting the poor and vulnerable in the context of incomplete markets for insurance, and as 'financier of last resort', providing a lifeline to small and medium enterprises who otherwise would struggle to find finance (Battersby, et al., 2022). These functions, scholars argue, are increasingly relevant given financial frictions and a world of increasing shocks. As discussed in Chapter 1, the small, remote, and dispersed nature of the PIC-9 implies higher unit costs of certain spending categories. Similarly, the PIC-9's geography exposes them to extremely high risks from climate events,[3] which implies higher-than-average adaptation spending may be necessary. Moreover, the PIC-9 have shallow domestic financial markets and lack access to international capital markets. Together, the combination of high expenditure, high risks, and low financial market buffers implies that fiscal policy is needed

2. RMI generally collects revenue higher than 13 percent of GDP and averaged 14.32 percent over 2016–2020. Thus, it meets the minimum threshold of 12.75 that Gaspar et al. highlight.
3. Based on estimated annualized expected losses (as a share of GDP) due to natural disasters, eight of the PICs are among the top 30 most disaster-prone countries in the world (World Bank, 2011b).

beyond its traditional roles of supporting macro-fiscal stability and supplementing aggregate demand during a shock. Rather, revenue and fiscal policies have much more important roles to play to buffer the negative impact of crises more broadly as spending is needed to support people and firms impacted by natural disasters, health emergencies, and other unforeseen events. Higher revenue collection to finance the higher expenditure levels needed thus may be justified from this perspective.

For example, when considering climate risk, several Pacific countries rank amongst a group of mainly low and lower-middle income countries that face the highest climate risks, and yet collect lower tax revenue (Figure 2.4). Climate risk is measured as the average climate risk score estimated by Germanwatch's Global Climate Risk Index over a 21-year period (2000–2020). Mapping countries' recent average tax collection (2017–2021) against this measure of climate exposure reveals that most of the 'High Climate Risk, Low Tax' quadrant of countries are low and lower-middle income economies. High-income economies that feature in this quadrant include Bahrain, Brunei, Kuwait, and Saudi Arabia—countries whose non-tax revenue from large commodity exporters compensates for their low tax revenue. Climate risk rankings are missing for Nauru, Kiribati, and Palau, preventing the extension of this analysis to these countries. Several of the remaining PIC-9 countries feature in the quadrant of most concern (RMI, Tuvalu, and FSM), while a couple of others are just outside it, either due to having climate risk that is ranked just below the median-level (Vanuatu), or tax collection that is just above the median-level (Tonga). Among the six PIC-9 countries for which there is data, only Samoa appears to have a reasonably high revenue buffer relative to its climate risk score. For the other five PIC-9 countries, this analysis suggests that they may be less able to leverage fiscal policy to buffer against climate shocks because of relatively limited tax collection.

Figure 2.4: Several of the PIC-9 are in the 'high climate risk' quadrants of countries, and this risk is exacerbated in RMI and Tuvalu due to their low tax revenues

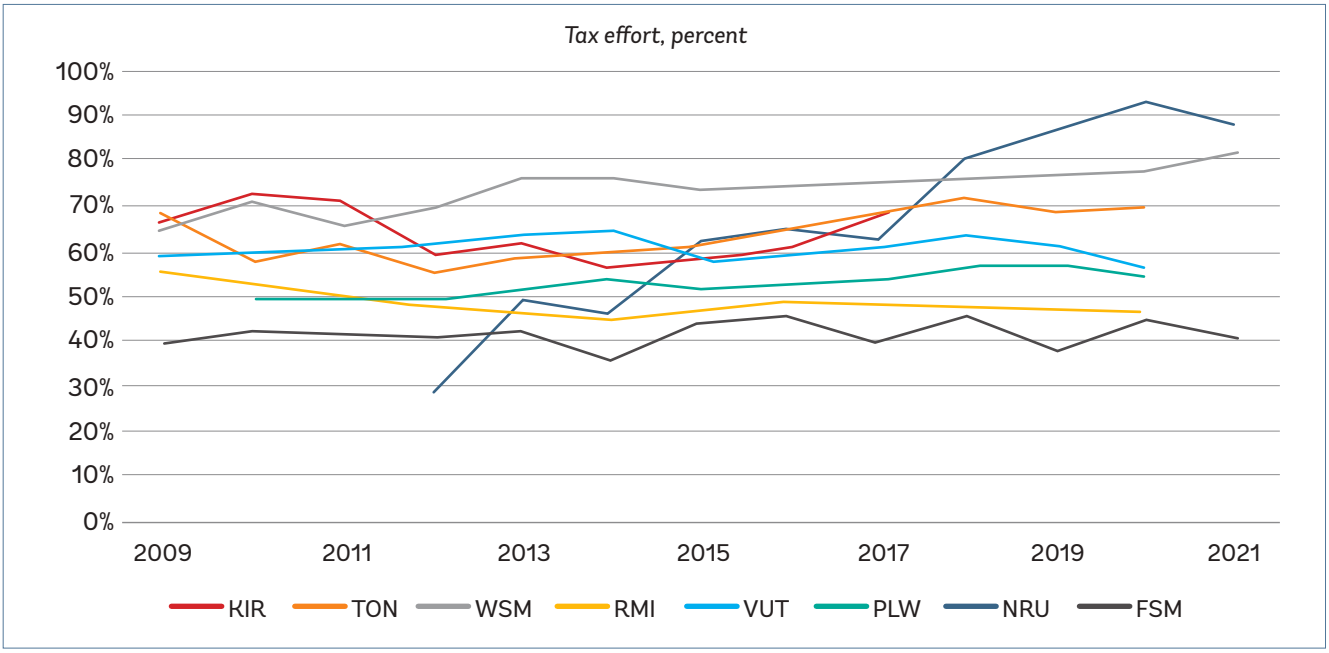


Source: Authors' analysis, Germanwatch Global Climate Risk Index, UNU Wider.

Since raising additional tax revenue has real costs on the economy, it is critical that the PIC-9 improve the quality of revenue collection. While there is no one uniform measure of the term, the 'quality' of revenue collection refers to the degree to which the tax system is distortive to the economy, and the degree to which it is perceived to be fair and equitable. Inefficiencies rise in the presence of tax regimes that are uneven across sector or economic activity. For example, taxing manufacturing more than services, or labor income more than capital income, may result in increased distortions in the economy from the tax system. Such inconsistencies also make the system unfairer, compromising 'horizontal equity'.[4] Inefficiencies and inequity may also arise due to compliance gaps that mean some taxpayers evade or avoid paying their fair share of taxes. Such compliance gaps reflect weaknesses in revenue administration or gaps in the tax code, which may be exploited by those seeking to avoid paying taxes. In addition, a tax system that lacks progressivity ('vertical equity')[5] is typically associated with lower general compliance to pay taxes by ordinary citizens and small and medium-sized companies.[6] Thus, looking at evidence of inefficiency and regressivity gives a sense of the quality of revenue collection overall.

Looking back over a 13-year horizon, tax effort in the PIC-9 has seen mixed performance, with some countries experiencing large improvements, while others have recorded flat or declining effort (Figure 2.5). The tax effort is a measure of the share of potential revenue that is collected by a jurisdiction. Among the PIC-9, Nauru, and to a lesser extent, Samoa and Tonga, made substantial progress in improving their tax effort.[7] Other PIC-9 countries have seen flat performance, while RMI has seen a gradual decline over the last few years.

Figure 2.5: Over the last 13 years, tax effort has improved notably in Nauru, Tonga, and Samoa

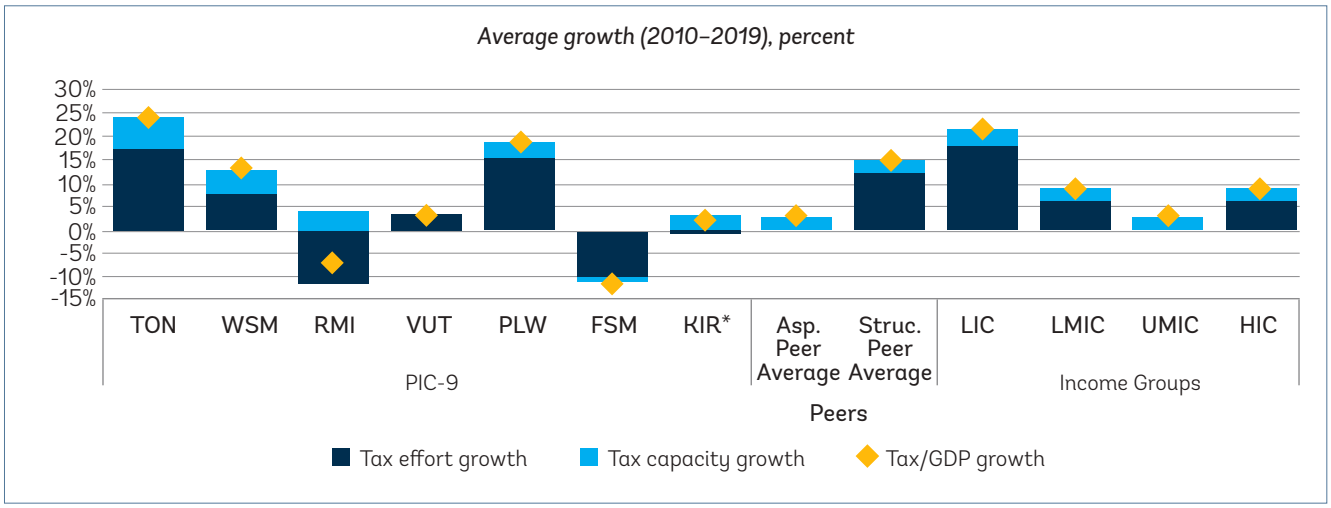


Source: Authors' analysis, WDI, country data, UNU Wider.

4. Horizontal equity refers to the idea that taxpayers of a similar size, such as workers earning the same wage or businesses generating the same profits, should face a similar tax burden.
5. Vertical equity is linked to the 'ability to pay principle' and reflects the belief that taxpayers that have a greater capacity to pay (e.g., workers that earn a higher salary, or businesses that occupy a much larger share of the market) should face a higher tax burden than those with a lower ability to pay (e.g., workers on low wages, or micro and small enterprises).
6. See Dom et al. 2022.
7. See Footnote 1 about Nauru in Revenue Chapter 2.

Looking at the decade prior to the pandemic, changes in tax–to–GDP were primarily due to changes in tax effort. Changes in tax effort reflect improvements in tax policy and administration, while changes in tax capacity measures changes in the base, and thus reflect economic growth. In the PIC-9, tax–to–GDP increases over the last decade prior to the COVID-19 pandemic were driven to a greater extent by improvements in tax effort than was the case for the average performance of upper-middle income economies (Figure 2.6). Tonga and Samoa saw larger-than-peer-average increases in both tax effort and tax capacity, as did Palau but to a lesser extent. RMI and FSM saw declining tax effort, with tax capacity growth able to compensate the decline only partly in RMI and falling tax capacity compounding the declining tax effort in FSM; both saw lower tax collection as a share of GDP at the end of the decade.

Figure 2.6: Tax effort was a bigger contributor to revenue changes for the PIC-9 than in peers



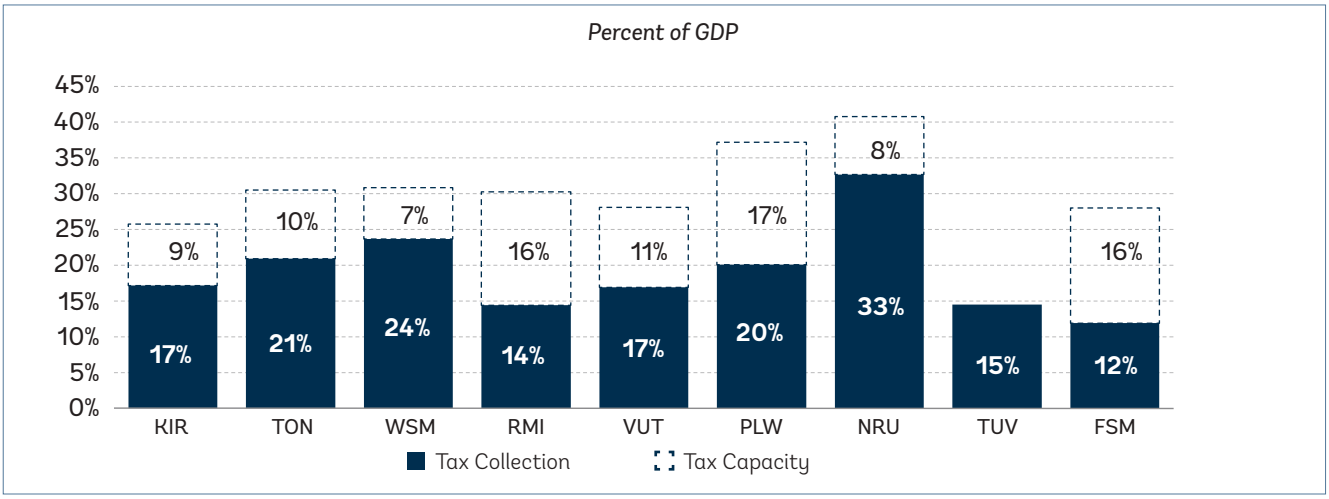
* The period of change for Kiribati is from 2010–2018 due to data limitations.

Source: Authors' analysis, WDI, country data, UNU Wider.

By closing some of their policy and administrative gaps, the PIC-9 have scope to mobilize additional stable revenues. Estimated tax gaps in the PIC-9 are substantial (Figure 2.7). Closing the full estimated tax gap is neither feasible nor necessarily desirable. For example, a value-added tax (VAT) exemption on certain financial products may be in place due to the complexity involved in estimating the value added on these products. Removing such a VAT expenditure may create distortions in the functioning of the financial market and impose excessive administrative costs. However, if just half of the total estimated tax gaps can be closed, this will yield on average at least 3 percent of tax–to–GDP or more in all PIC-9 countries.[8] Further analysis by tax type will help shed light on the drivers of these tax gaps, indicating areas of tax reform priority.

8. An estimated tax gap is missing for Tuvalu because it is lacking trade data. However, given its low tax collection compared to PIC-9 peers, it is not unreasonable to expect that Tuvalu can gain a substantial amount of revenue through closing part of its policy and administrative gaps.

Figure 2.7: **Closing part of the tax gap in the PIC-9 can result in substantial higher tax to GDP ratios**

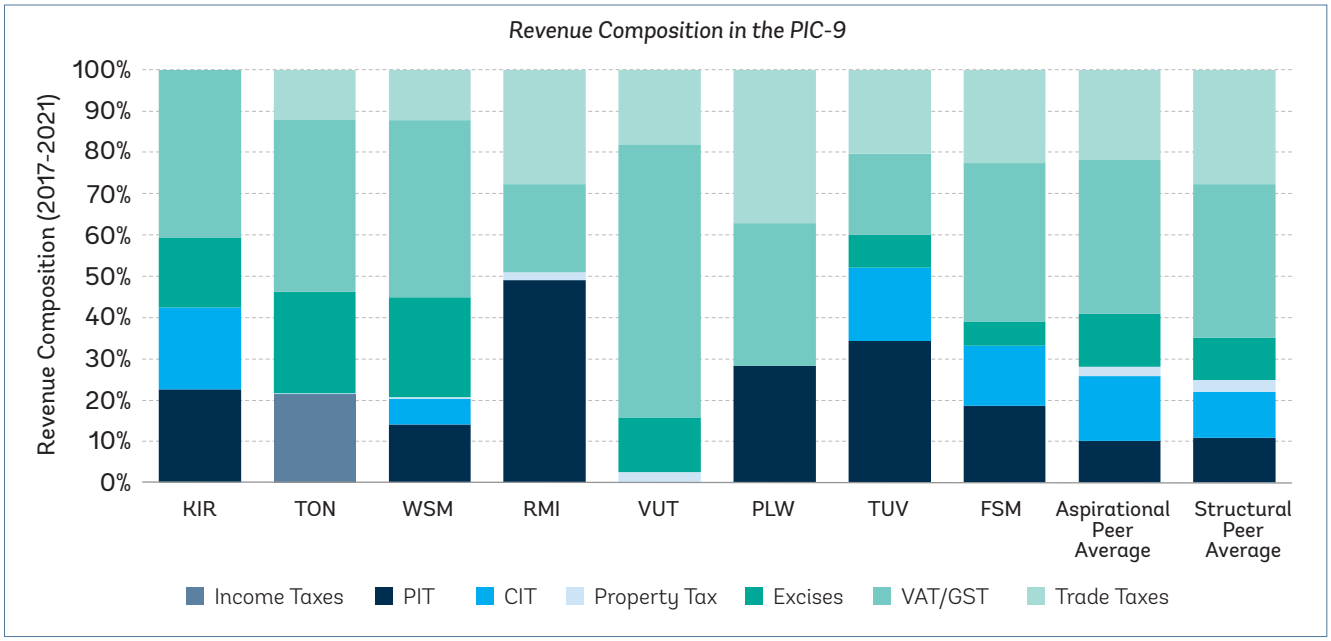


Source: Authors' analysis, WDI, country data, UNU Wider.

Looking at the tax mix provides a starting point for analysis at the tax instrument level; in the PIC-9, it suggests countries are relying more on indirect taxes and much less on direct taxes. Within the PIC-9, there is wide variation (Figure 2.8). On one end, Tonga and Vanuatu rely almost exclusively on excises, VAT/GST, and trade taxes, while on the other end, FSM, Kiribati, and Tuvalu rely mainly on direct taxes. Of the major tax handles, the corporate income tax is the least-relied-upon instrument, while personal income taxes are also sparingly used in most of the PIC-9, with the notable exception of Kiribati. Taking the tax mix average for the region as a whole suggests a greater emphasis on indirect taxation, with excises in particular playing a more prominent part than is typically the case in average upper-middle-income economy.

Figure 2.8: The tax mix varies within the PIC-9, but for most, corporate income taxes are less utilized

Average tax composition (2017-2021), percent of total



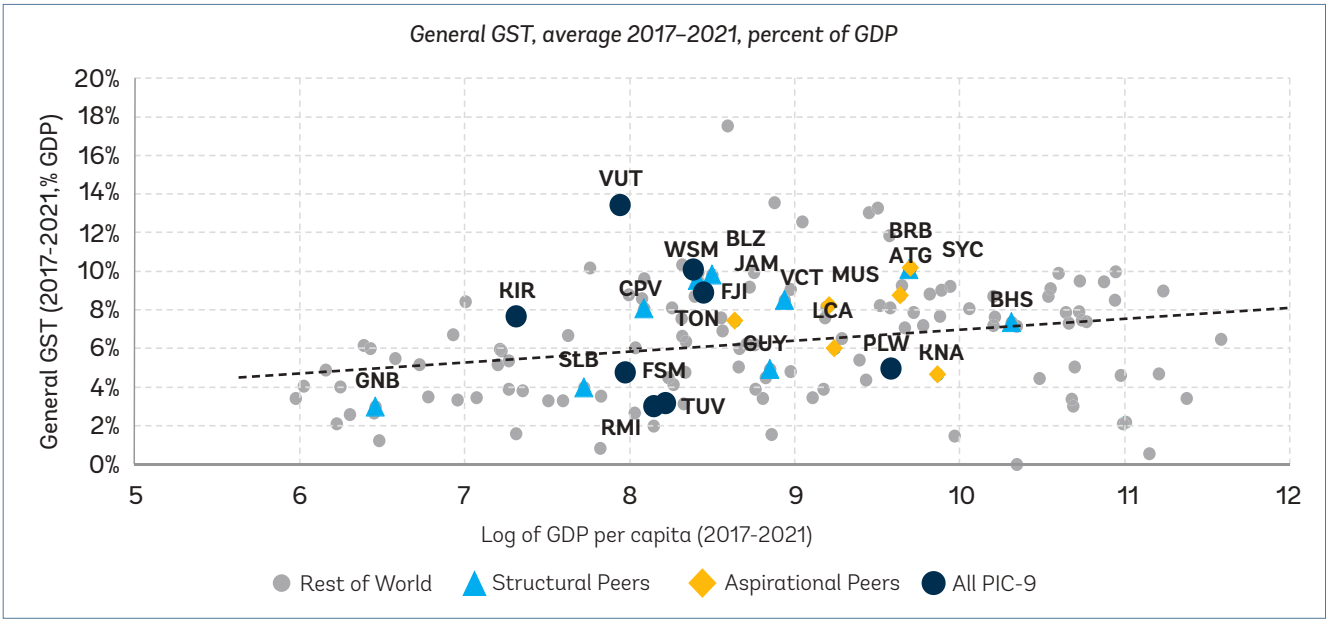
Note: Disaggregation of income taxes unavailable for TON. FSM's CIT data from 2016 due to data limitations. FSM's figures have been adjusted to remove large one-off payments by individual captive insurance companies in 2014, 2018, and 2019.
Source: Country data, UNU Wider.

2.3 Indirect taxation drives most of the PIC-9 countries' tax collection

2.3.1 Consumption taxes are key for several PICs, but design features lead to divergent outcomes

Consumption taxes are a key driver of tax revenue in some of the PIC-9. Vanuatu, Samoa, Tonga and to a lesser extent, Kiribati, all collect more revenue from their general goods and services taxes than countries with a similar GDP per capita (Figure 2.9). On the other hand, Tuvalu, Palau, and RMI collect much lower revenue than what would be expected.

Figure 2.9: **Consumption taxes are a workhorse for Vanuatu, Samoa, Tonga, and Kiribati**



Source: WDI, Country data, UNU Wider.

Design features of consumption taxes within the PIC-9 vary and explain part of the diverging performance (Table 2.1). A VAT regime has become increasingly popular within the PIC-9 region, and is being used in Kiribati, Samoa, Tonga, Tuvalu, and Vanuatu. FSM, RMI, and Palau operate a gross revenue tax (GRT) instead of a VAT, while Nauru has no broad consumption taxes in place (only a few specific consumptions taxes including a telecommunications services tax). After thirty or so years, Palau will be replacing the GRT with a VAT regime, known as the Palau Goods and Services Tax (PGST). The new law will impose a 10 percent PGST tax on all businesses with sales above US$300,000, replacing the GRT which imposed a 4 percent tax on gross sales, and will go into effect in 2023. Businesses with annual sales of US$50,000 but lower than US$300,000 will have the option of registering into the PGST, or alternatively pay the same 4 percent GRT applied today. Both FSM and RMI considered legislation over the past 15 years to move to a VAT, but thus far the legislative process has proved too high a barrier for the reform bills to be enacted (White & Michaels, 2021).

Table 2.1: Design features of general consumption taxes within the PIC-9 vary

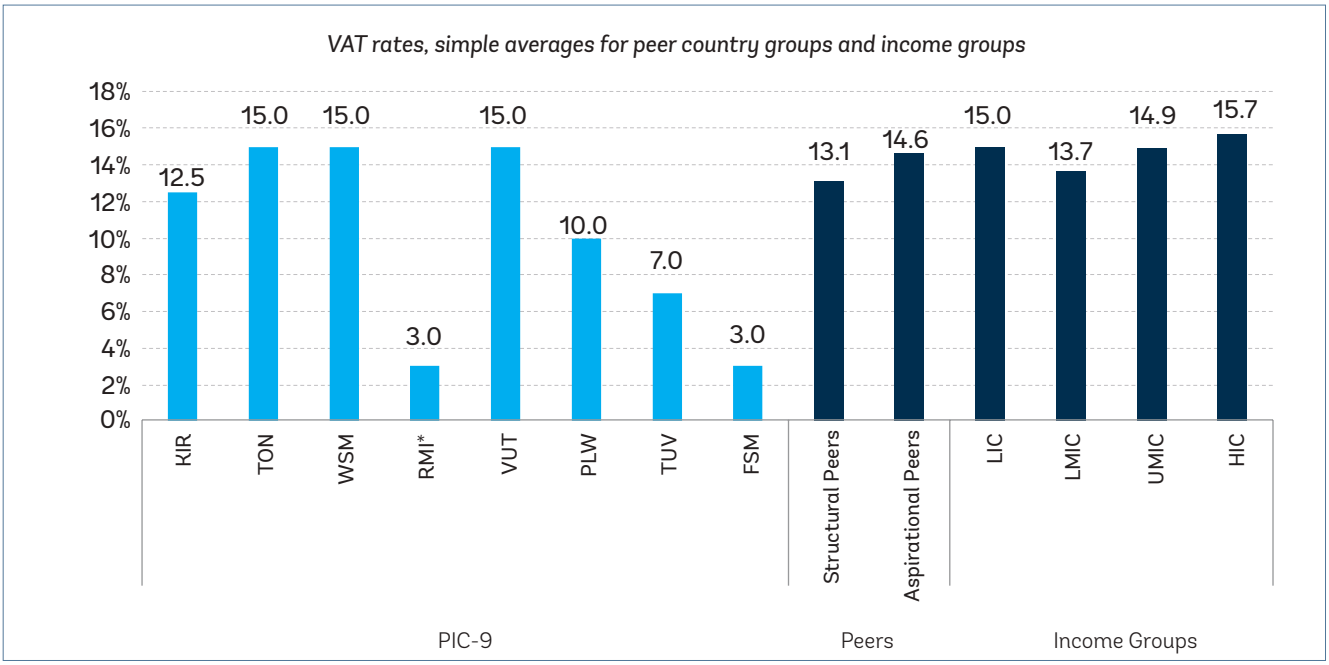
Country	Base	Rate (%)	Threshold (USD)	Policy Developments
Kiribati	Value-added	12.5	Approx. 66,700 (AUD 100,000)	
RMI	Gross revenue	3	10,000	Comprehensive 2010 tax reform bill proposed a VAT (among other reforms), but was never passed in to law[9]
FSM	Gross revenue	3	10,000	Since 2005, government has tried to introduce a VAT but failed to get the unanimous coordinated legislation between state and national governments required by the constitution
Nauru	No general consumption taxes			
Palau (old)	Gross revenue	4	50,000	Existing regime, expires end-Dec 2022
Palau (new)	Value-added for standard, gross revenue for SMEs	Standard: 10 SME: 4	300,000 standard 50,000 SME	New regime effective from January 01, 2023
Samoa	Value-added	15	Approx. 46,500 (WST 130,000)	
Tonga	Value-added	15	Approx. 43,000 (TOP 100,000)	
Tuvalu	Value-added	7	Approx. 66,700 (AUD 100,000)	
Vanuatu	Value-added	15	Approx. 32,500 (VT 4 million)	

Source: PER Revenue Survey, country websites, tax consultancy websites.

As well as shifting to a VAT regime, there is scope for some PIC-9 countries to raise the VAT rate, which would raise VAT potential. The VAT potential refers to the theoretical maximum a country could raise from its VAT if it had no policy gaps and perfect compliance. This potential can grow either with economic developments (the share of consumption growth in the economy), or with an increase in the statutory VAT rate. There is some scope for some of the PIC-9 to raise their VAT potential by increasing the statutory rate in-line with peers (Figure 2.10). Tonga, Samoa, and Vanuatu's VAT rate of 15 percent is similar to the average for aspirational peers (14.6 percent) and the average for upper-middle-income economies (14.9 percent). Tuvalu's rate of 7 percent is much lower than these benchmarks. Palau's newly proposed regime also opts for a relatively low rate of 10 percent, while Kiribati's rate of 12.5 percent could also be increased to raise the country's VAT potential.

9. The tax reform bill also included: (i) reforming personal income tax; (ii) introducing a net profits tax; and (iii) replacing existing import duties with excise taxes.

Figure 2.10: Tuvalu, Palau, and Kiribati have lower VAT rates than peers



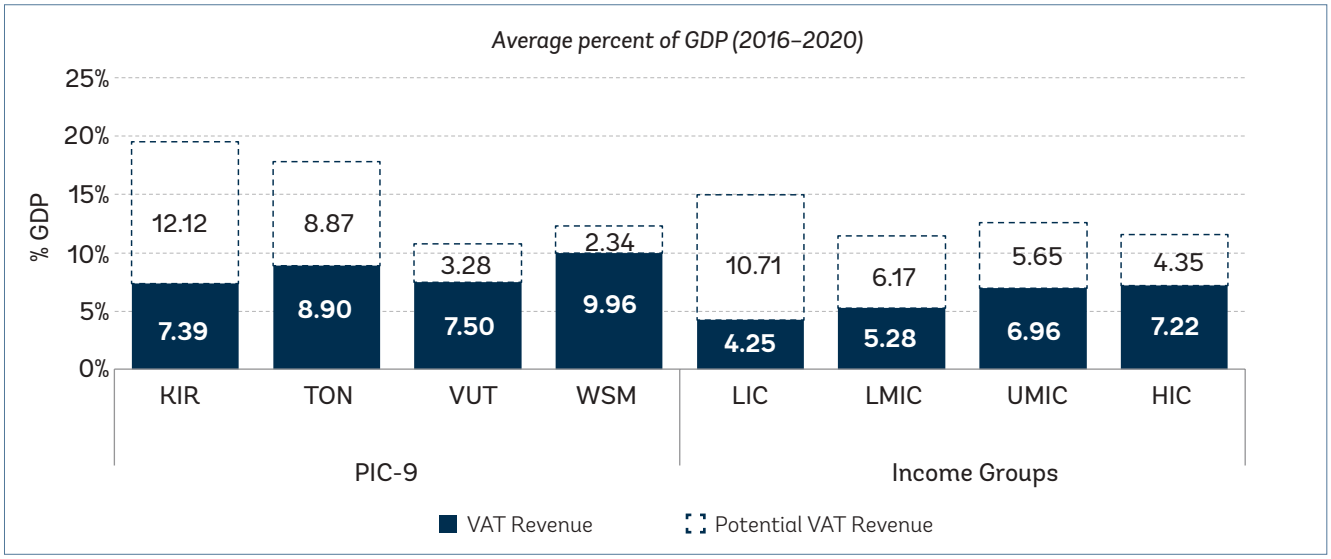
* RMI and FSM operate a gross revenue system, where the tax rate is applied to gross revenue and not on value-added.
Source: Authors' analysis, WDI, UNU Wider, KPMG.

2.3.2 VAT collection underperforms potential due to narrow bases and low compliance

Higher VAT efficiency would help the PIC-9 to close part of their VAT gap and in so doing improve VAT collection. A VAT gap measures the difference between VAT potential and actual revenue collected. Kiribati stands out within the PIC-9 for having an especially large VAT gap, which is larger than the average for low-income economies, let alone countries with higher levels of economic development (Figure 2.11). Kiribati's large VAT gap is only partly due to it having an extremely consumption-driven economy, and thus, a large VAT base. At a similar level of efficiency to peers, Kiribati would be collecting an additional 5.8 percentage points of GDP in VAT revenue. It would collect even more revenue if it could match Samoa's efficiency, which outperforms peers. As per above, Kiribati's VAT potential could also be increased. For example, raising its statutory rate from 12.5 percent to Vanuatu's 15 percent would increase revenue by 1.5 percent of GDP.[10]

10. This estimate assumes no behavioral impact (i.e., consumption is unchanged, and compliance is unchanged). The increase in VAT potential from such a rate change is about 4 percent of GDP. Revenue gains closer to that amount would require Kiribati to improve its VAT efficiency.

Figure 2.11: Kiribati has a larger VAT gap than many countries

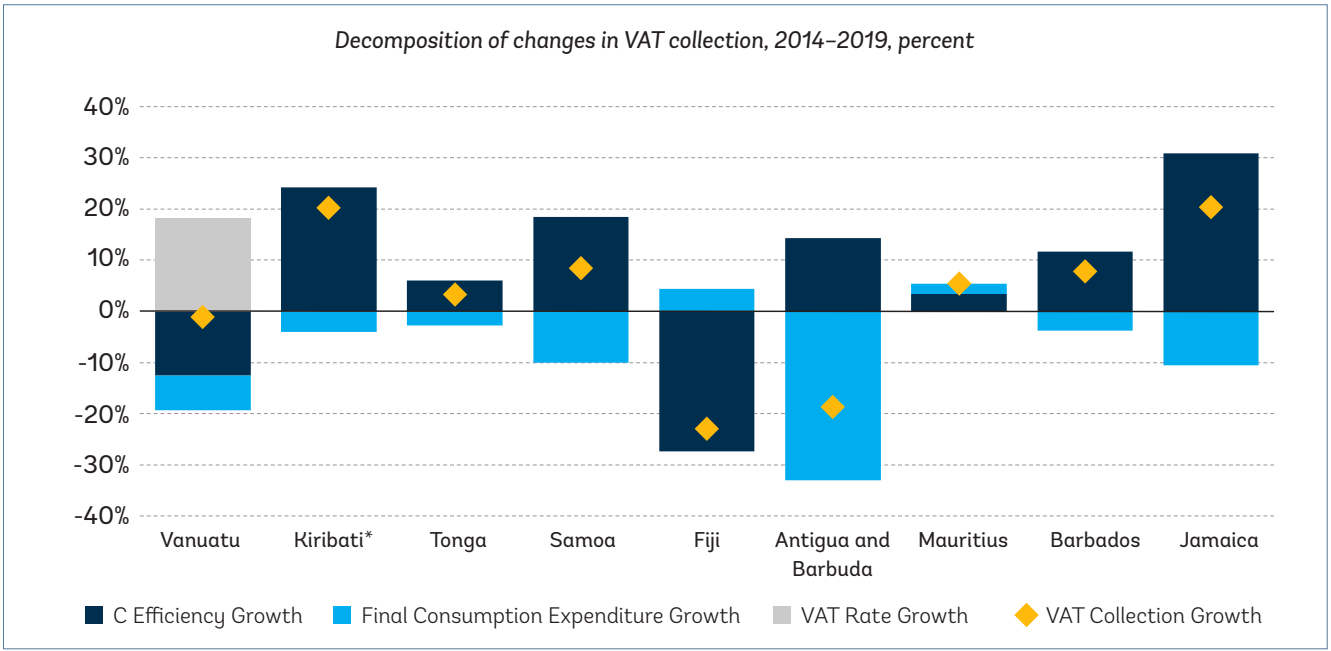


Source: Authors' analysis, WDI, UNU Wider, KPMG.

Increasing VAT efficiency is the most sustainable means of improving VAT collection. VAT revenue can grow due to base effects (countries' expanding private consumption growth), but this is outside a policymaker's control. It can also grow through level changes in the statutory rate, but this comes at a cost to the economy and rates cannot be increased regularly. However, increasing VAT revenue through improvements in efficiency makes the system simpler to manage, reduces distortions to the economy, improves horizontal equity, and reduces the need to increase statutory rates. While Vanuatu successfully increased VAT collection over the period 2014–2019, the growth in revenue came from its policy decision to raise the statutory rate from 12.5 percent to 15 percent, which came into effect January 1, 2018. VAT efficiency, as measured by c-efficiency,[11] fell over this period, as did final consumption expenditure growth. In contrast to Vanuatu—Samoa, Kiribati, and peer countries like Barbados and Jamaica, were all able to raise VAT collection despite similarly declining final consumption growth and no rate changes by focusing on improving efficiency (Figure 2.12).

11. The C-efficiency ratio is the most commonly used indicator for evaluating the revenue performance and overall efficiency of the VAT system. It is the ratio of actual revenues to theoretical revenues from a perfectly enforced tax levied at a uniform rate on all consumption. This includes consumption by households, the government, and nonprofit institutions serving households (NPISH) (Keen & Smith, 2013).

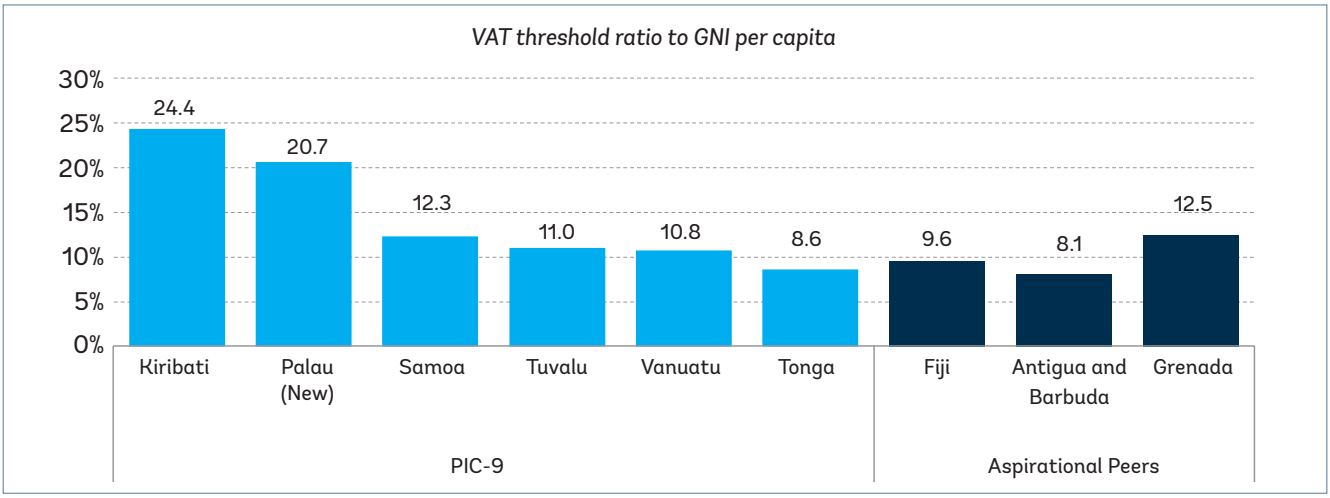
Figure 2.12: **VAT changes are driven by changes in consumption, rates, and/or efficiency**



* The period of change for Kiribati is from 2016–2018 due to data limitations.
Source: Authors' analysis, WDI, UNU Wider, KPMG.

The VAT base is too narrow in some of the PIC-9, in part due to very high VAT registration thresholds. A high VAT registration threshold narrows the base, contributing to the VAT gap, and increases tax distortions in the economy, creating perverse incentives for firms to grow, undergo firm splitting, and/or under-report their sales. Such factors are likely at play in Kiribati, whose VAT threshold of approximately US$66,700 is more than 22.5 times bigger than the country's GNI per capita (Figure 2.13), and four times that of its CIT threshold. This VAT threshold ratio is more than double the estimated ratios for Tuvalu, Vanuatu, and Tonga—and more than double the ratios in selected aspirational peers.

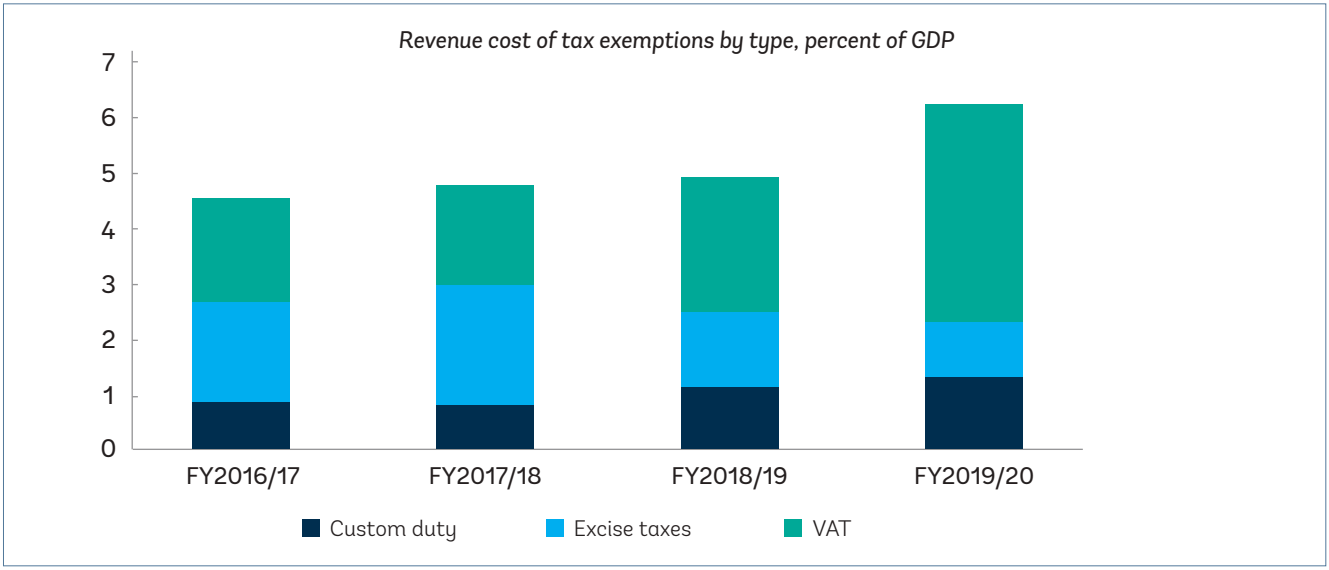
Figure 2.13: **Kiribati's VAT threshold is more than triple that of Vanuatu's and double that of Samoa**



Source: Country websites, tax consultancy websites, WDI.

High VAT exemptions also narrow the VAT base and are a particularly large source of revenue loss for Tonga and Kiribati. Reasons for the introduction of VAT exemptions include efforts to encourage investment, provide relief to low-income households, or reduce revenue administration costs. Yet, evidence suggests that these have been largely ineffective in the Pacific (IMF, 2019a), consistent with the global literature (IMF, 2019b). In addition, such exemptions are extremely costly and are distortionary.[12] In Kiribati, for example, state owned enterprises (SOEs) are fully exempted from VAT, contributing to an uneven playing field between SOEs and the private sector. Moreover, tax exemptions within the PIC-9s have often been applied in an ad-hoc manner with exemptions provided to individual projects and companies along with several exemptions being granted through non-tax legislations. Additionally, there is limited public reporting of revenue forgone from tax exemptions. In the limited number of cases where there is public reporting, it is often in non-budget documents such as the revenue administration annual report. In Tonga, efforts to measure revenue foregone from VAT exemptions have highlighted their significant costs (Story et al., 2021). As a share of GDP, VAT exemptions in FY20 represented an estimated 6 percent of GDP (IMF, 2022), or 27.6 percent of total tax revenue (Figure 2.14).

Figure 2.14: Tax expenditures are proving increasingly costly in Tonga



Source: IMF, 2022.
Note: Partial FY2019/20 data up to January 24, 2020.

12. For example, exemptions that benefit carbon-intensive energy generation discourage investments in renewable energy alternatives.

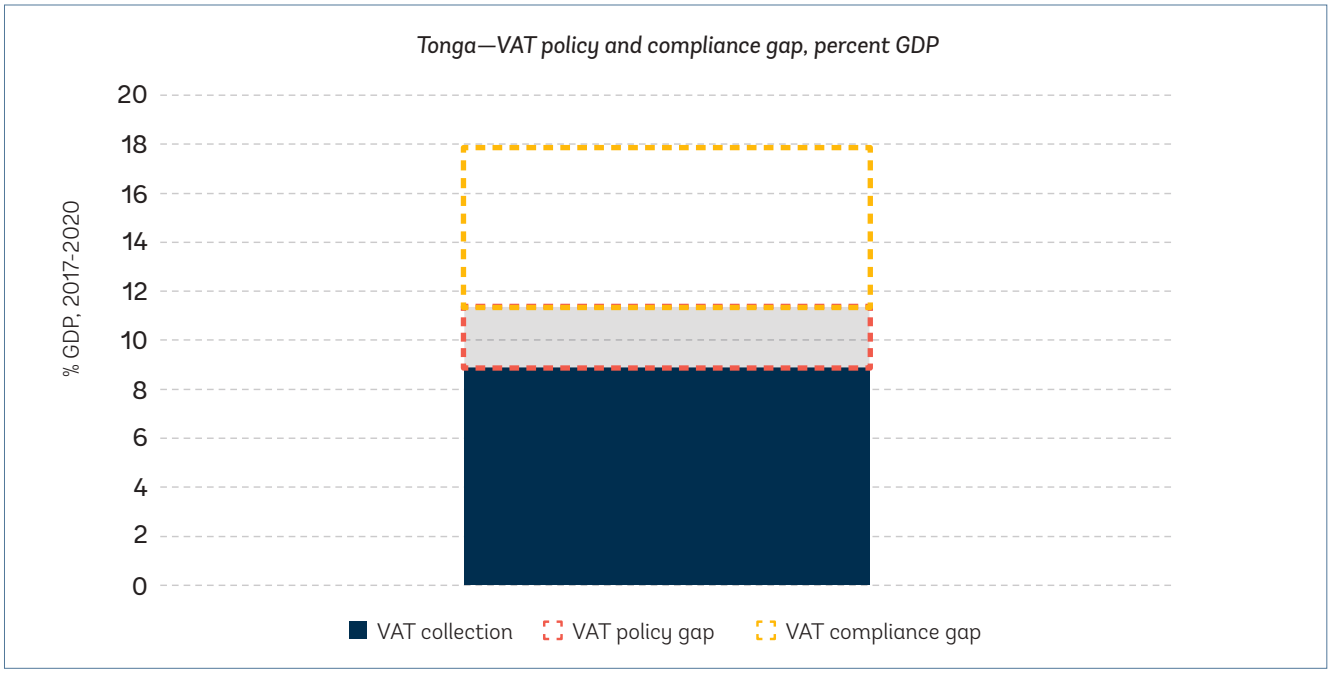
Analysis shows that Tonga's tax expenditures have also been narrowly concentrated towards a small number of beneficiaries, undermining fairness in the tax system and increasing its distortions. VAT exemptions are highly concentrated amongst a narrow group of beneficiaries, with one company alone accounting for approximately 30 percent of the share of total VAT exemptions and the largest 10 beneficiaries claiming almost 60 percent of the total (IMF, 2020). Similarly, data going as far back as 2007 illustrates that a very large share of total exemptions go to fuel, with more than 98 percent of total excise exemptions going to imported petroleum oils in FY18. This is not unique to Tonga, with Kiribati and Tuvalu also exempting diesel imports from excises and duties. International evidence shows that fuel tax exemptions are regressive, as the higher income deciles tend to be larger consumers of fuel (Pigato, 2019). Hence, the highest income deciles are likely to have been the biggest beneficiaries. Given Tonga's very high reliance on indirect taxation, the regressivity of a large share of exemptions within indirect taxation reduces the progressivity of the tax system overall. Furthermore, tax exemptions for fuel provide an implicit subsidy for carbon-intensive electricity production, disincentivizing a switch to renewable energy, in conflict with the government's climate and renewable energy ambitions.

The compliance or administrative gap also contributes to lost VAT revenue and can explain part of the tax gap in the region. Compliance challenges may come in at different stages, including registration, filing, reporting, and payment. They may be general to all types of taxpayers, or specific to certain sectors, business sizes, or to specific parts of the country.[13]

Tonga collects about 50 percent of its potential VAT revenue, with noncompliance accounting for the largest share of the gap. Figure 2.15 shows a deduction of the compliance gap as a residual, calculated by subtracting actual VAT collection and the tax exemption gap from theoretical collection given aggregate consumption and the VAT standard rate. VAT evasion can arise from: i) under-reporting sales; ii) failing to register; iii) misclassifying commodities—when traders may report sales of commodities under a high rate as if they were under a lower-rated (or exempt) commodity; iv) omitting self-deliveries—when goods or services are consumed by employees; v) collecting but not remitting tax; vi) reselling imported goods; vii) submitting false claims for credits or refunds; viii) claiming VAT on non-creditable purchases; and ix) setting up fake companies to generate invoices that allow VAT recovery (Keen & Smith, 2013). Tax administration reforms discussed in the sections above can help address these issues and increase collection closer to potential.

13. International experience shows that some taxpayer segments tend to be more prone to VAT compliance challenges than others, which then necessitates additional focus of the revenue administration on these higher-risk categories. For example, at a sectoral level, construction and the trade sector may be areas of focus; in terms of business size, small and medium enterprises (SMEs) may be an area of concern, particularly those with sales around the VAT registration threshold.

Figure 2.15: **Tonga's VAT gap is primarily attributable to non-compliance**

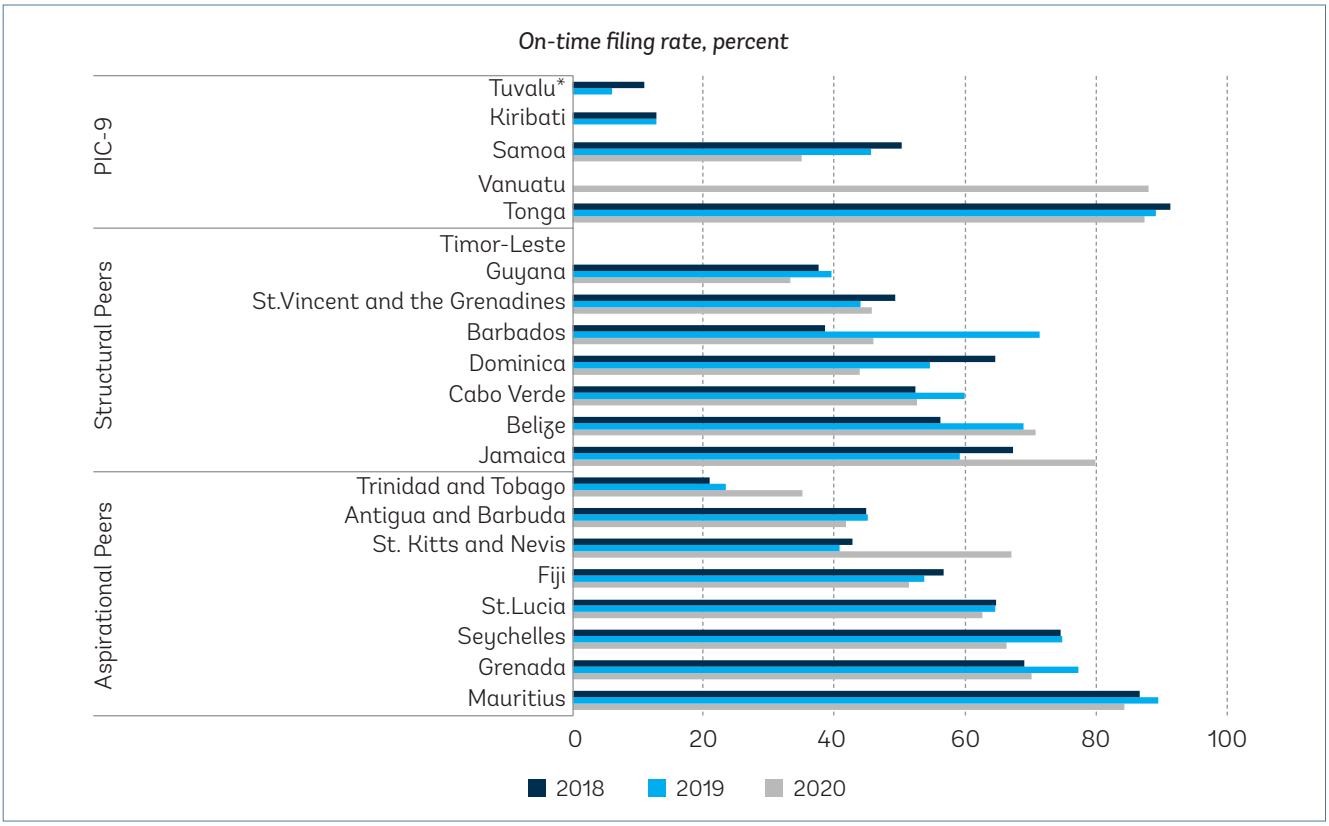


Note: Not included in the policy gap figure is an estimate of revenue foregone attributable to the VAT threshold, which is part of the tax policy gap. Thus, the deduced compliance gap is slightly smaller than shown above. In other countries, the VAT threshold's contribution to revenue foregone is low.
Source: Authors' calculations, IMF 2022, UNU Wider, Country data, WDI.

Compliance can be improved by increasing voluntary compliance and strengthening enforcement. Voluntary compliance can be supported through easing the administrative burden of paying taxes and improving trust in the revenue authority. Improving VAT refund management so that taxpayers receive their refunds in a timely manner is one important component of building taxpayer trust with VAT administration. Compliance will likely also require strengthened enforcement, including enhanced tax audit capacity, enforcement of penalties, and if necessary, legal action.[14] A diagnostic assessment can be conducted to identify the strengths and weaknesses in revenue administration.[15] In Tonga, for example, an assessment of tax administration has highlighted: (i) concerns on the integrity of the tax register (which is estimated to be only 70 percent accurate); (ii) weaknesses in filing income taxes; (iii) challenges with accurate reporting; (iv) the need for higher capacity in risk-analysis, particularly in managing large taxpayers; and (v) the case for further investments in technology to support revenue administration capacity (IMF, 2021). The on-time filing rate is one indicator for which there is broader data that includes some of the PIC-9 countries. As Figure 2.16 illustrates, Vanuatu and Tonga score well on this metric, with more than 88 percent of filings in 2018–2020 lodged on time. Tuvalu and Kiribati, on the other hand, score poorly, with rates below 11 and 13 percent, respectively, the lowest figures amongst structural and aspirational peers.

14. For an example of a rigorous framework analyzing the drivers of compliance (Dom et al. 2022).
15. TADAT is an example of a diagnostic assessment tool that may be leveraged within the PIC-9 region to assess revenue administration strengths and weaknesses in greater depth. For more, see: https://www.tadat.org/home

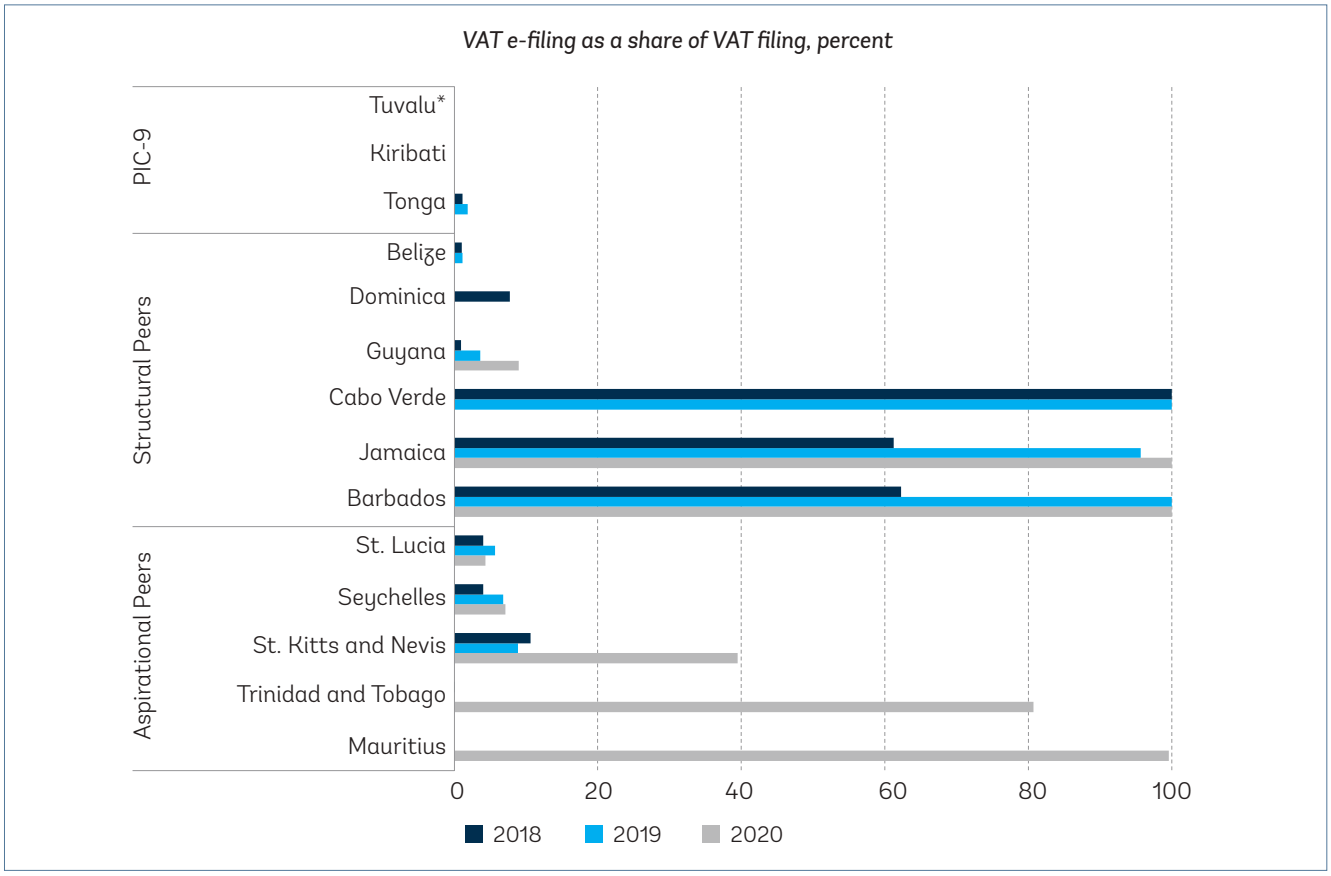
Figure 2.16: **Vanuatu and Tonga score well on on-time VAT filing, while Tuvalu and Kiribati score poorly**



Note: Tuvalu's data cover 2020 and 2021.
Source: Country data, RA-FIT.

Rolling out e-filing of VAT is one way through which the PIC-9 countries can improve VAT compliance. E-filing of taxes, as part of a broader automation of taxation, has been shown internationally to improve tax compliance (Coolidge & Yilmaz, 2014). This is principally for two reasons: (i) e-filing makes it easier, and less costly, for businesses and individuals to comply with their tax obligations, thereby improving voluntary compliance; and (ii) e-filing provides the revenue authority with a wealth of easy-to-analyze data, which can be used to strengthen compliance-risk analysis, audit selection, and thus, enforcement. Figure 2.17 demonstrates that the PIC-9 countries are behind the curve on this dimension of revenue administration. Little to no VAT is filed electronically, in sharp contrast to structural peers like Barbados, Cabo Verde, and Jamaica, which boast VAT e-filing at or approaching 100 percent.

Figure 2.17: **The PIC-9 countries do not currently have VAT e-filing in place, in contrast to some structural peers**



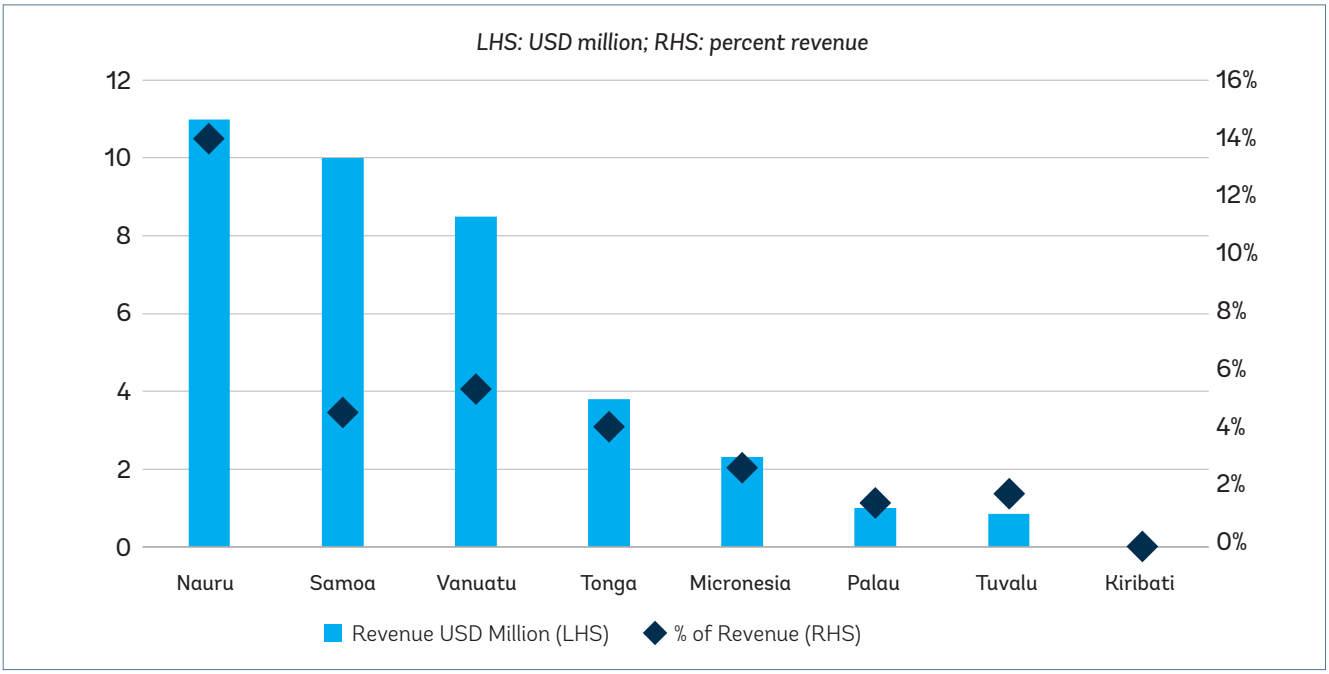
Note: Tuvalu's data cover 2020 and 2021.
Source: Country data, RA-FIT.

2.3.3 Trade liberalization motivates the case for excise reform

Gradual trade liberalization within the Pacific will put downward pressure on excise revenue collection, motivating the case for excise reform. The Pacific Agreement on Closer Economic Relations (PACER Plus) was launched in Tonga on 14 June 2017, and has been signed by Australia, New Zealand, and eight other Pacific countries, including Kiribati, Tonga, Samoa, Tuvalu, and Vanuatu from the PIC-9.[16] Nauru has signed but is yet to ratify the agreement. The agreement envisages gradual trade liberalization, with all tariffs eventually set to fall to zero.[17] The revenue impact of the agreement varies by country (Figure 2.18), with the largest losses expected in Nauru, Samoa, and Vanuatu, where trade tariffs remain an important current revenue source. These losses reflect the annual revenue impact after full liberalization, which will take 25 or more years to complete after the agreement is entered into force.[18] According to more recent analysis, the revenue losses are estimated to be around 1.2–1.6 percent of GDP in Samoa and 1.0–1.3 percent of GDP in Tonga (IMF, 2021).

16. The other countries are Solomon Islands, Niue, and Cook Islands.
17. See The United Nations, 'Pacific Agreement on Closer Economic Cooperation (PACER) Plus': https://www.un.org/ldcportal/content/pacific-agreement-closer-economic-cooperation-pacer-plus and PACER Plus Implementation Unit: https://pacerplus.org/
18. Tariffs are eventually set to fall to zero 25 years after 2017, but with a slower reduction schedule for Solomon Islands, Tuvalu, and Kiribati linked to them graduating from 'least developed status'.

Figure 2.18: A 2015 study estimated large revenue losses from PACER-Plus for Nauru, Samoa, and Vanuatu



Note: Estimates are based on a study by the Office of the Chief Trade Advisor for the Forum Island Countries. It uses static 2014 estimates capturing eventual annual revenue impact after full liberalization.
Source: IMF FAD (February 2018); authors' analysis.

2.3.4 Health taxes can help address NCDs and raise revenue

Tobacco excises within the PIC-9 can be strengthened, as the region currently ranks lower than structural and aspirational peers largely due to lower average tobacco prices. In a ranking of different dimensions of tobacco taxation, the PIC-9 region's overall score ranks consistently lower compared to structural and aspirational peers (2014–2020). The rankings, which are conducted by the University of Illinois, Chicago, take into account price (adjusted for PPP), changes in affordability, the tax share of the price, and the simplicity of the excise structure. The PIC-9's average is driven down largely due to the lower relative price of tobacco compared to peers (Figure 2.19). This regional average in fact masks large variation; Palau, Tonga, and to a lesser extent, Samoa, score higher than the aspirational average, while FSM, RMI, and Tuvalu score much lower than most peers (Figure 2.20).

Figure 2.19: The PIC-9 score lower on global ranking of tobacco taxation due largely to lower price

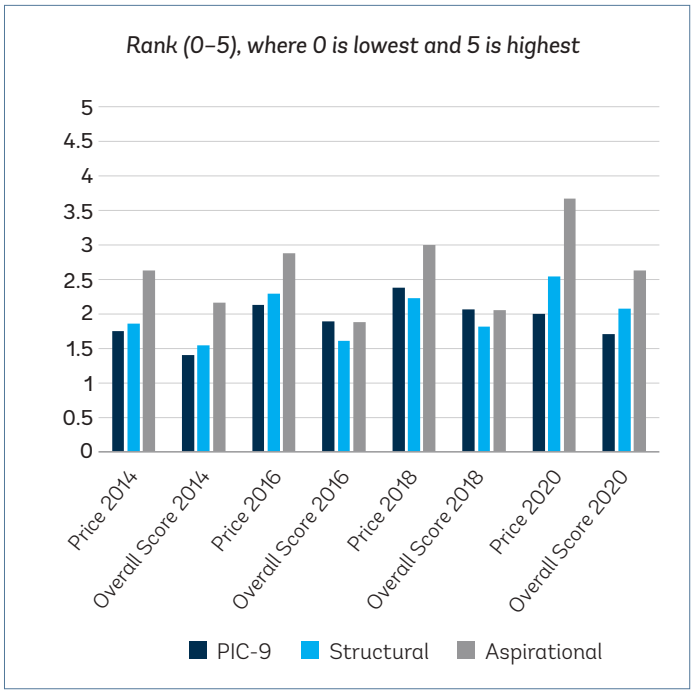
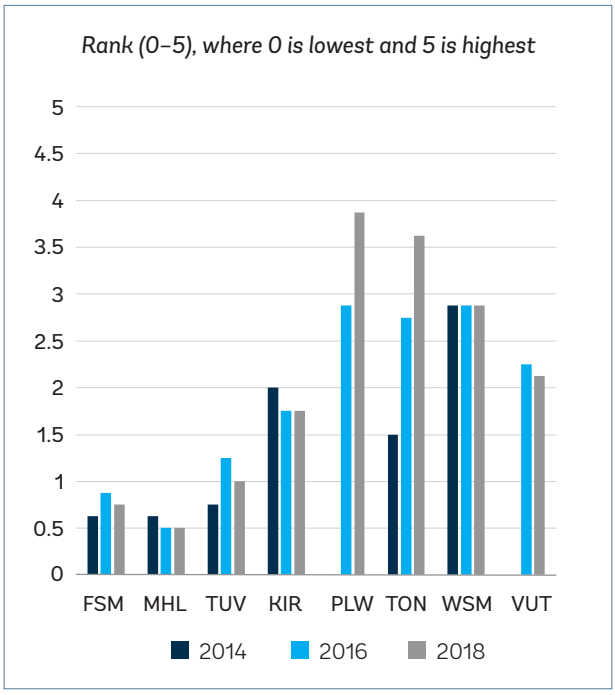


Figure 2.20: The PIC-9 average masks a wide range, with robust taxes in Palau and Tonga



Note: PIC-9 average excluded Nauru due to missing data; Structural is average of the following countries (listed using ISO3 code): BHS; BHR; BLZ; BRB; COM; CPV; DMA; GNB; GUY; JAM; SLB; STP; SUR; and VCT; Aspirational is average of: ATG; FJI; GRD; KNA; LCA; MUS; SYC; and TTO.
Source: Chaloupka et al., 2021; authors' analysis.

Other excise reforms may include strengthening 'sin taxes' including higher taxes on alcohol and introducing new health taxes on sugar-sweetened beverages (SSBs). Within the PIC-9, Tonga and Samoa in recent years have introduced reforms which have resulted in higher taxes on fuels, sugary drinks and salty foods, and stronger controls on alcohol to minimize harmful effects from consumption and abuse.[19] According to the WHO, a person consuming one SSB per day can easily exceed the WHO's guideline to limit free sugars to less than 10 percent of total daily energy intake and is at increased risk of developing obesity and Type 2 diabetes. From a public health perspective, taxation of SSBs is internationally recommended as a priority component of a comprehensive approach to preventing and controlling obesity and diet-related NCDs (World Bank, 2020b). Countries that have successfully implemented SSBs include PIC-9 peers such as Barbados, Dominica, and Suriname. In Barbados, the SSB is designed as an ad valorem excise tax equivalent to approximately 10 percent of the price, while in Suriname, the SSB excise is an amount-specific per unit volume tax.[20] Other health taxes that may be considered include a tax on energy-dense foods of low nutritional value, though these are still in the early stages of design and implementation worldwide (Dodd et al., 2020; Bonilla-Chacin et al., 2016).

19. These measures were supported by the World Bank's Development Policy Operations. See Tonga First Inclusive Growth DPO (Prior Action 1); Tonga Second Inclusive Growth DPO (Prior Action 1); Samoa First Resilience DPO (Prior Action 6); and Samoa Second Resilience DPO (Prior Action 1). For more on Tonga's reforms, see World Bank (2019).
20. Ad valorem taxes are set as a percentage of the price, rather than a specific per unit amount. For more on the theory behind health taxes and the practical experience of designing them in Barbados, Dominica, Suriname and other countries, see Powell & Chaloupka (Chapter 8) in Lauer et al., 2023.

2.3.5 Indirect taxes are unlikely to be regressive and are not the right fiscal instrument to tackle equity concerns

The VAT's impact on equity is a controversial topic but structural and policy factors likely mean it is neutral or even mildly progressive in the PIC-9. Multiple studies have found the VAT to be regressive, yet these studies did not account for the impact of savings behavior.[21] Using an expenditure-based approach that avoids some of the challenges related with savings behavior, the VAT is found to be relatively proportional or even slightly progressive.[22] Moreover, most global studies have largely focused on OECD countries. When analyzing the VAT in developing economy contexts, the presence of informality in an economy has been found to reduce the VAT burden on people with low-income (Bachas et al., 2020). Finally, the presence of VAT exemptions, high VAT thresholds, and other design features common to several of the PIC-9, may have some limited benefits for progressivity. However, analysis in other countries finds that such measures are typically poorly targeted and tend to provide tax savings that are as large if not larger for people with higher income than for people with lower income. Fuel exemptions in Tonga, discussed above, is a prominent example of such a poorly-targeted measure. Distributive goals could be better targeted with the expenditure side of the budget (Bird & Zolt, 2008), or through direct taxes which can more easily be designed to aid progressivity.

2.4 Direct taxation, particularly of corporates, is under-utilized

2.4.1 Direct taxes vary by design, with taxation of corporates limited or absent in several PICs

The design of income tax regimes varies substantially within the PIC-9. As detailed in Table 2.2, the personal income tax (PIT) rate for the lowest bracket ranges from 6 percent (FSM) to 20 percent (Samoa), while the highest bracket ranges from 10 percent (FSM) to 30 percent (Kiribati). Similarly, within the corporate income tax (CIT) regime, rates vary, with a top rate of just 3 percent in RMI, a flat 25 percent regime in Tonga, and top rates of 27 percent and 35 percent in Samoa and Kiribati, respectively. Palau combines a simple two-tiered PIT regime with no CIT, and FSM has a two-tiered PIT regime and applies CIT only on non-resident firms. Nauru operates a mixed CIT regime; non-resident companies earning up to US$168,775 ($A 250,000) are liable for a tax of 2.5 percent on gross revenue; both resident and non-resident companies with revenue higher than that threshold but below US$10,125,5000 ($A 15,000,000) are liable for tax of 20 percent on profits (from taxable income), and all companies with revenue higher than that top threshold facing a tax of 25 percent on profits. Nauru's PIT also applies a unique distinction; employees of the RPC face a tax of 30 percent, while all other non-RPC employees face a tax of 20 percent (but a similar low tax threshold applies to both, with a distinction made based on employee residence). Within the PIC-9, the sharpest contrast is with Vanuatu, which has no income tax regime in place at all.

21. Studies that have found the VAT to be regressive include Leahy et al., 2011; Ruiz & Trannoy, 2008; and O'Donoghue et al., 2004. However, weaknesses in their methodology have been discussed in Thomas, 2022; IFS, 2011; Creedy, 1998; Metcalf, 1994. Failing to account for savings behavior is one notable example. Since the higher income deciles save more, and some of these savings can in future be converted into consumption, focusing on consumption behavior as a share of income in a single year fails to capture some of the (future) VAT that is almost exclusively shouldered by higher income deciles.

22. Studies that use the expenditure-based approach and find the VAT to be neutral and/or mildly progressive include Thomas, 2022; Bird & Smart, 2016; IFS, 2011; Metcalf, 1994.

Table 2.2: Design features of income taxes within the PIC-9 vary widely

Country	Base	Rate (%)	Thresholds (USD, annual unless stated)
FSM	PIT	6% 10%	< 11,000 (deduct 1,000 from liability if income < 5,000) > 11,000
	CIT	Domestic (pay GRT) Foreign 21% 25% 30%	- < 300,000,000 300,000,000–500,000,000 > 500,000,000
Kiribati	PIT	Tax free 20% 25% 30%	< 3,335 ($A 5,000) 3,335–10,005 (15,000) 10,005–20,010 (30,000) > 20,010 (30,000)
	CIT	Resident 20% 30% 35% Non-resident 30%	< 16,675 ($A 25,000) 16,675–33,350 (50,000) > 33,350 (50,000) All incomes
Nauru	PIT	Resident Non-RPC employees 20% RPC employees 30% Non-resident 20%/30% Non-resident independent service providers 20%	 > 1,305/week ($A 1,935); > 2,612/fortnight (3,870) > 5,670/month (8,400) >13,500 (20,000) Depends on RPC/non-RPC >13,500 (20,000)
	CIT	Non-resident company 2.5% on gross revenue 20% on taxable income 25% on taxable income 20% on interest, royalty, or insurance premium Resident individual 20%	 <168,775 ($A 250,000) 168,775–10,125,500 (250,000–15,000,000) >10,125,500 (15,000,000) >168,775 (250,000) >168,775 (250,000)
Palau	PIT	6% 12%	< 8,000 > 8,000
RMI	PIT	8% 12%	< 10,400 (deduct 1,040 from liability if income < 5,200) > 10,400
	CIT	$80 3%	< 10,000 > 10,000
Samoa	PIT	Tax free 20% 27%	< 206 (WST 576) 206–344 (962) > 344 (962)
	CIT	Tax free 20% 27%	< 5,365 (WST 15,000) 5,365–8,942 (25,000) > 8,942 (25,000)

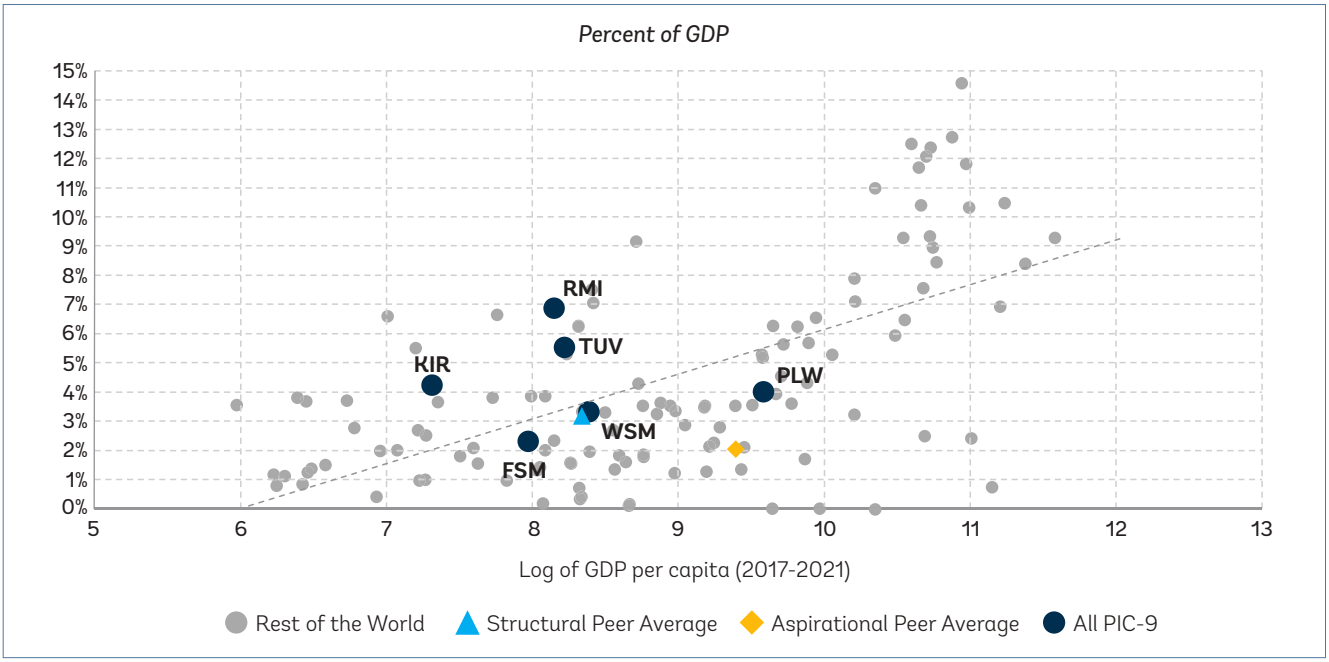
(continued on next page)

Country	Base	Rate (%)	Thresholds (USD, annual unless stated)
Tonga	PIT	Tax free 10% 15% 20% 25%	< 5,160 (12,000) 5,160–12,900 (30,000) 12,900–21,500 (50,000) 21,500–30,100 (70,000) > 30,100 (70,000)
	CIT	25%	All incomes
Tuvalu	PIT Withholding	Tax free 15% 30% 15%	< 6,670 (TVD 10,000) 6,670–9,338 (14,000) > 9,338 (14,000)
	CIT	Non-resident (40%) Resident (30%)	All incomes All incomes
Vanuatu	No income taxes		

2.4.2 Payroll taxes generate the biggest share of direct tax revenue in most of the PIC-9s, and generally benefit from high productivity

Payroll taxes are the main direct tax instrument within the PIC-9 in terms of raising revenue, with RMI, Tuvalu, and Kiribati performance particularly strong. As a share of GDP, many of the PIC-9 collect a substantial amount of revenue from PIT relative to peers, with RMI, Tuvalu, and Kiribati collecting more than international benchmarks given their levels of economic development (Figure 2.22) or against select peers (Figure 2.23). Palau and Samoa collect under this international trendline, yet both nevertheless collect higher than the average for upper-middle-income economies and Palau performs in-line with the average for higher-income economies.

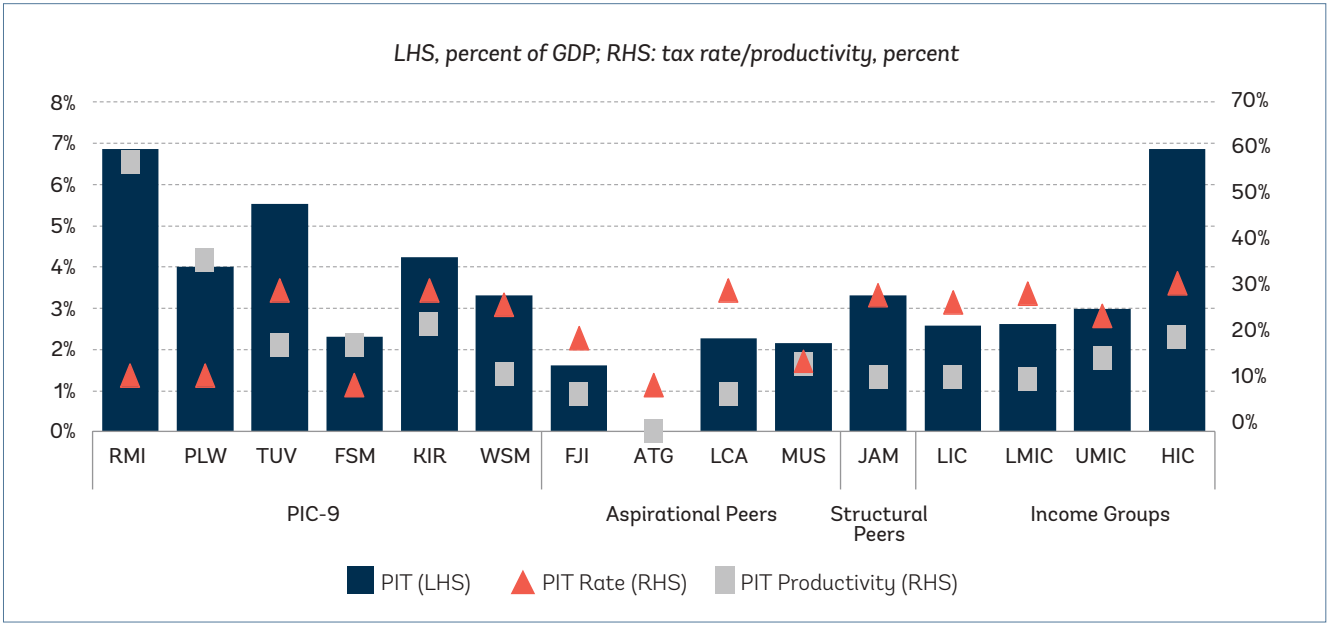
Figure 2.22: Several of the PIC-9 collect relatively high amounts of PIT revenue



Note: Y-axis is limited to 15 percent, excluding extreme outlier points in the dataset; X-axis starts from 5 to enable chart to be read more easily.
Source: Authors' analysis, PIC-9 official country data, UNU Wider.

Payroll taxes benefit from high productivity. Strong PIT revenue performance within the PIC-9 is driven by higher PIT productivity, with Tuvalu and FSM having a higher productivity than the average for upper-middle-income economies. Kiribati, RMI, and Palau have a higher productivity than the average for high-income economies, but Palau's low PIT rate is a result of overall moderate PIT revenue collection for its income level. Kiribati, Tuvalu, and FSM have a higher productivity than the average for upper-middle-income economies.

Figure 2.23: Productivity of PIT is relatively high across most of the PIC-9

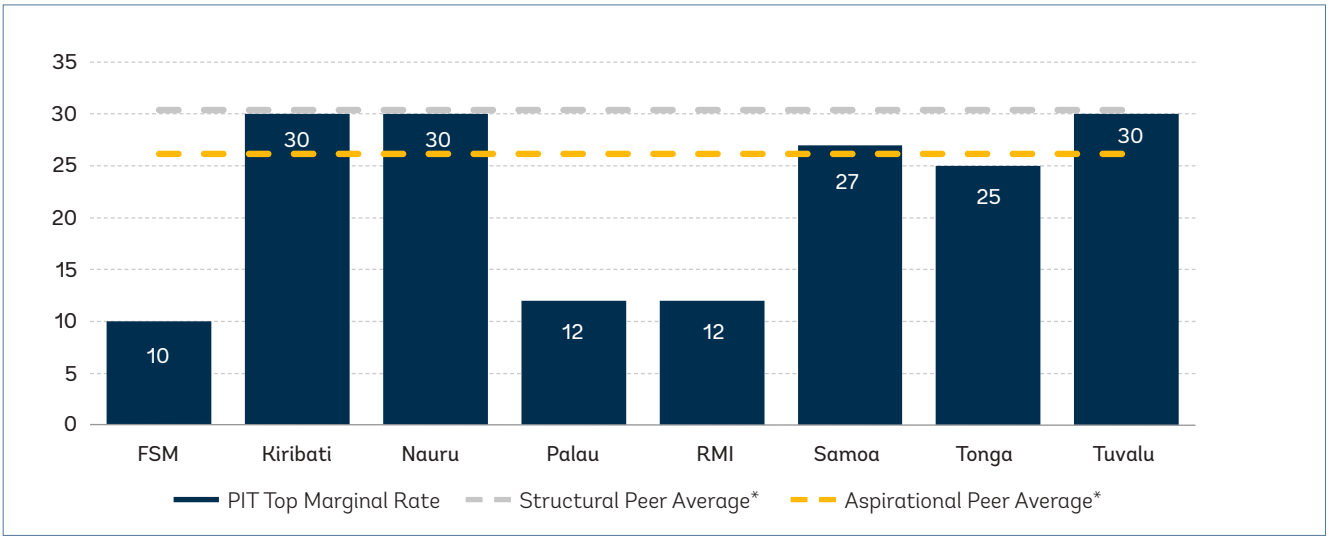


Source: Authors' analysis, UNU Wider, KPMG.

The top marginal rate bracket of payroll taxes can be increased in several PIC-9 countries in-line with peers, which will raise revenue and improve progressivity of the tax system. Looking at the PIT rate for the highest marginal rate bracket illustrates that some of the PIC-9 countries have the potential to raise even more revenue and to make their PIT system more progressive. RMI, Palau, and FSM stand out for having top rates much lower than peer averages (Figure 2.24). The level of the top marginal personal income tax rate is a key lever to ensure that the average tax rate rises with income, reducing income inequality.[23] With an effective rate of 0, by nature of having no personal income tax, Vanuatu misses out the most.

23. Other means of designing tax systems such that average rates rise with income include building complexity into the tax bracket by adding more rates and considering sources of income (example, high-income deciles tend to accrue more capital income than lower-income deciles, but this income is taxed at a lower rate than labor income). See Gerber et al., 2018.

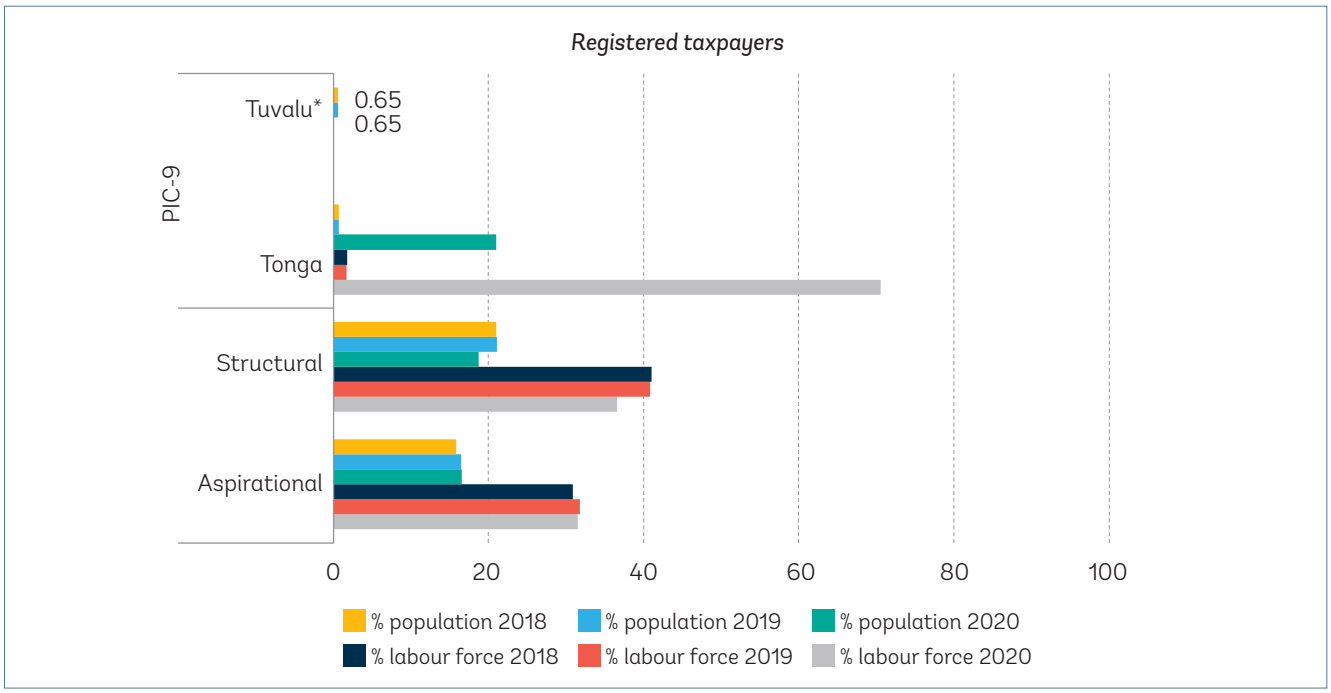
Figure 2.24: FSM, Palau, and RMI have top marginal tax rates far below those of peers



* Peer averages among countries with a personal income tax regime.
Source: Country inland revenue authority websites, tax consultancy websites.

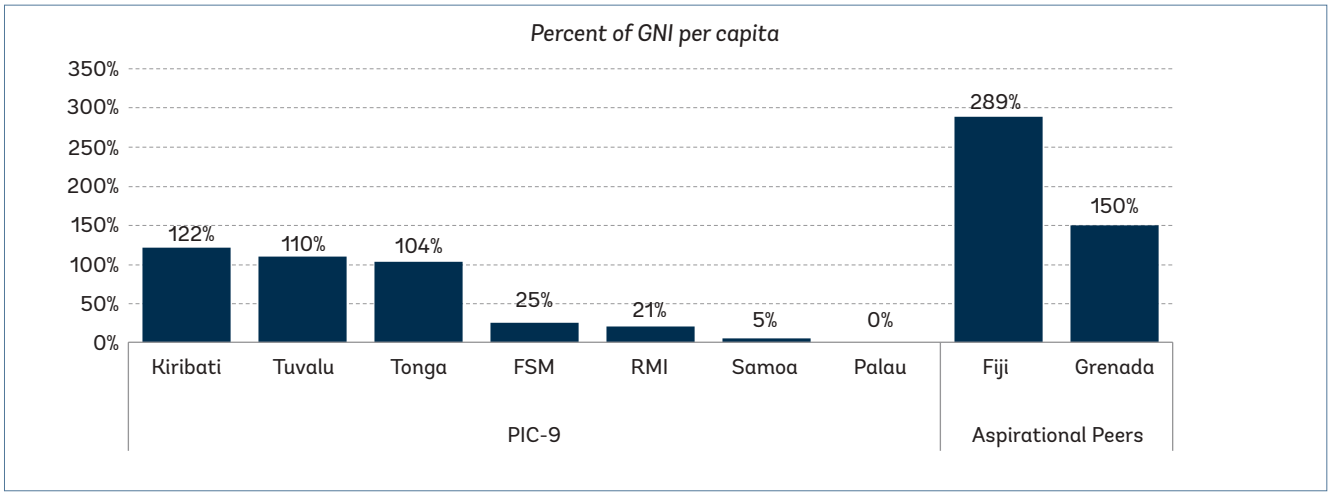
Payroll taxation in Tuvalu has an extremely narrow base, partly due to a high PIT threshold and partly due to noncompliance. Registered taxpayers expressed as a share of the population has been extremely low within the two countries of the PIC-9 for which data has been collected; just 0.68 percent in Tonga (or 1.8 percent of the labor force) and 0.65 percent in Tuvalu (Figure 2.25), although Tonga has since surged to the level of peers as a share of population and surpassed the level of peers as a share of the labor force. A high PIT threshold may explain part of the low registration. Within the PIC-9, Kiribati, Tuvalu, and Tonga stand out for having very high thresholds in their PIT regime, equivalent to more than 100 percent of their GNI per capita (Figure 2.26). This can be contrasted to a zero threshold in Palau (with all registered workers having to pay a minimum of 6 percent) and a threshold equivalent to approximately 5 percent, 21 percent, and 25 percent in Samoa, RMI, and FSM, respectively. High thresholds contribute to narrowing the base of the PIT, but they are not the only driver of low PIT registrants in Tonga and Tuvalu. Fiji and Grenada help illustrate that another dimension of the challenge is noncompliance. Although both Fiji and Grenada have substantially higher PIT thresholds as a share of GNI per capita, the ratio of PIT registrants as a share of the population is more than 10 times higher than in Tonga and Tuvalu at 7 percent in Fiji and more than 20 times higher at 15 percent in Grenada. Low PIT registration due to a high threshold and high noncompliance undermines the fairness of the PIT system. If it persists over time, noncompliance from a share of the labor force may encourage presently compliant taxpayers to similarly evade taxes, either by failing to register or by under-reporting income. Thus, without revenue administration reforms to strengthen compliance-management, noncompliance may increase over time, reducing productivity further.

Figure 2.25: Registered taxpayers are a very small share of the population in Tuvalu, but increased in Tonga in 2020 to surpass peer averages



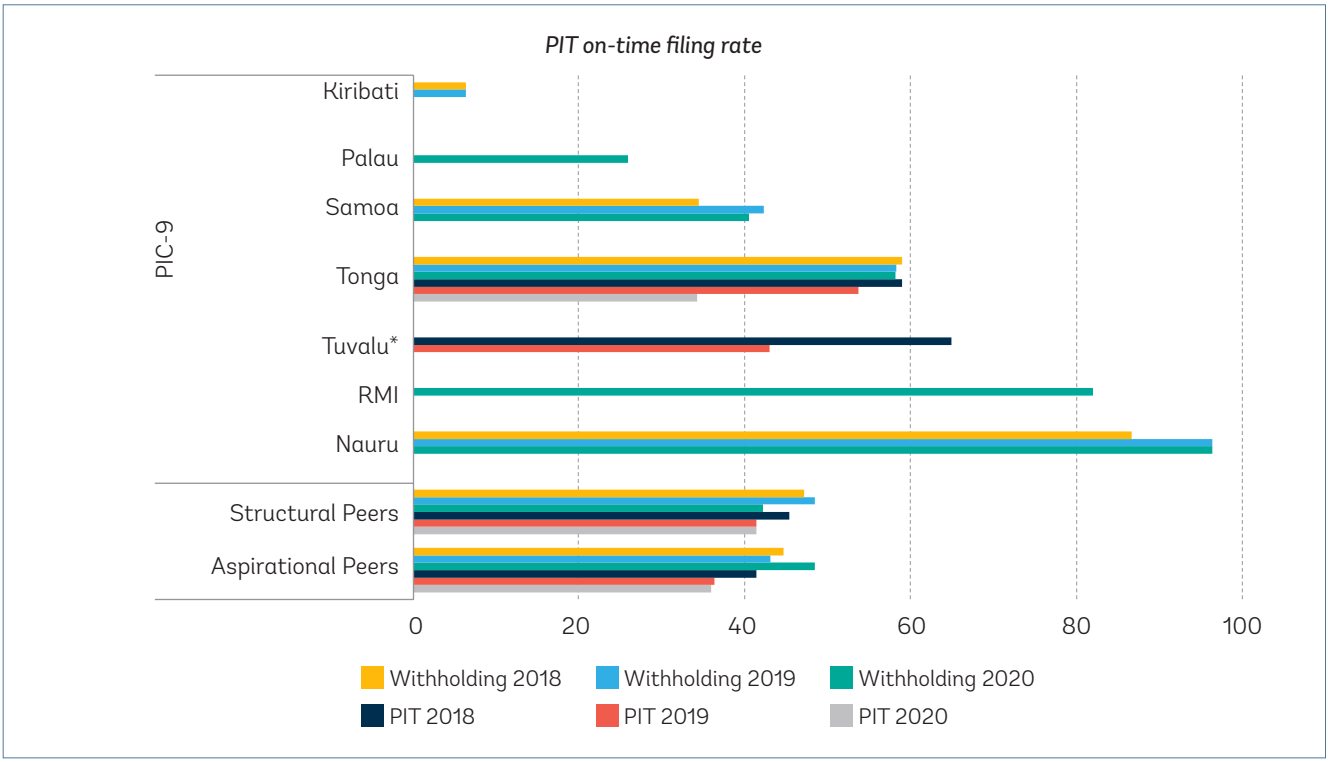
Note: Tuvalu's data cover 2020 and 2021.
Source: Country data, RA-FIT.

Figure 2.26: Kiribati, Tuvalu, and Tonga have much higher PIT thresholds than the rest of the PIC-9



Weaknesses in PIT compliance management may be linked to the withholding nature of the payroll tax regime in several of the PIC-9, which limits the data the government has at its disposal with which to assess non-compliance. A withholding regime is simple to administer and helps to explain why payroll tax payments within several of the PIC-9 countries come on time for a large share of taxpayers compared to peers (Figure 2.27). However, this simplicity comes at a high cost; it puts the weight of compliance on employers and denies the government access to individual income tax filings from all workers. Cross-checking filings from employers and employees is a means of compliance risk analysis in other countries, whose findings serve as an important input into the audit selection process.

Figure 2.27: The simple withholding tax regime in many PICs means many tax filings are timely

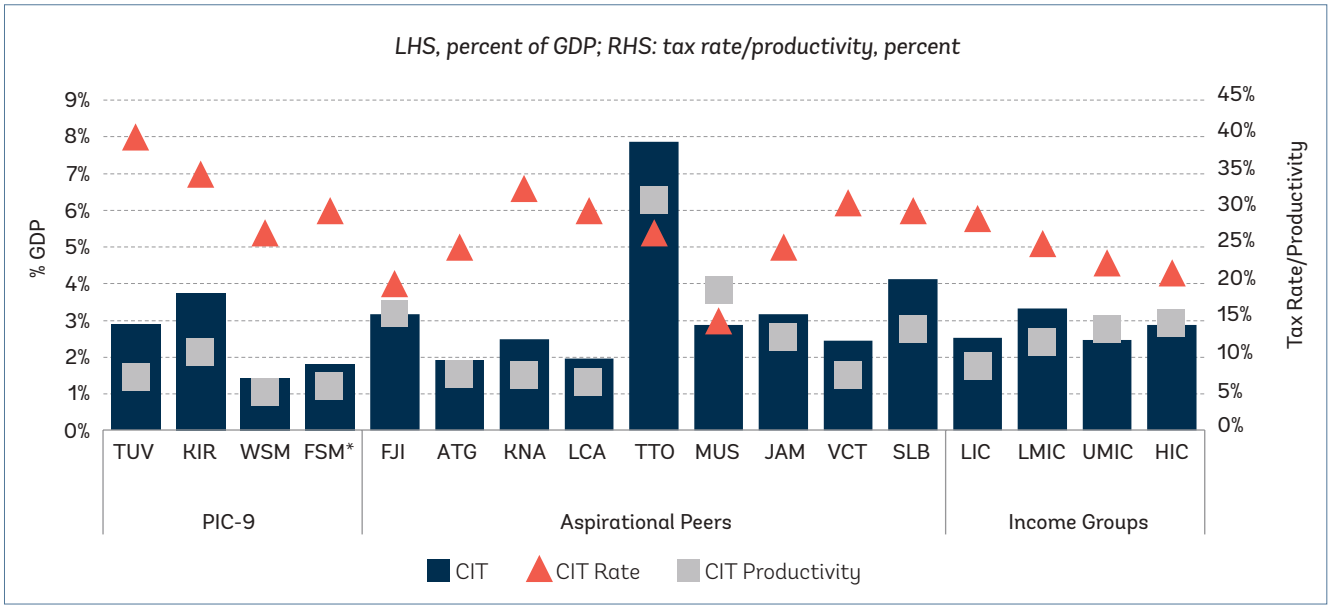


Note: Filing in Tuvalu and Tonga is the obligation of employers (on behalf of employees); in other peer countries illustrated above, the filing requirements vary. Tuvalu's data cover 2020 and 2021.
Source: Country data, RA-FIT.

2.4.3 CIT suffers from low productivity

CIT is under-utilized within the PIC-9, with low productivity contributing to relatively low revenue despite relatively high rates. In contrast to the performance of PIT, CIT in the PIC-9 suffers from a combination of relatively low revenue collection, low productivity, and high rates (Figure 2.28). Samoa is the starkest example. There, the top CIT rate is 27 percent for companies earning approximately more than US$8,900 (LCU of 25,000), compared to average rates of 25 and 23 percent for lower-middle-income and upper-middle-income economies, respectively. Yet, revenue collection and CIT productivity in Samoa are lower than all the selected comparator peers and the average for the different income country groupings.

Figure 2.28: CIT productivity is low within the PIC-9, dragging down CIT revenue collection

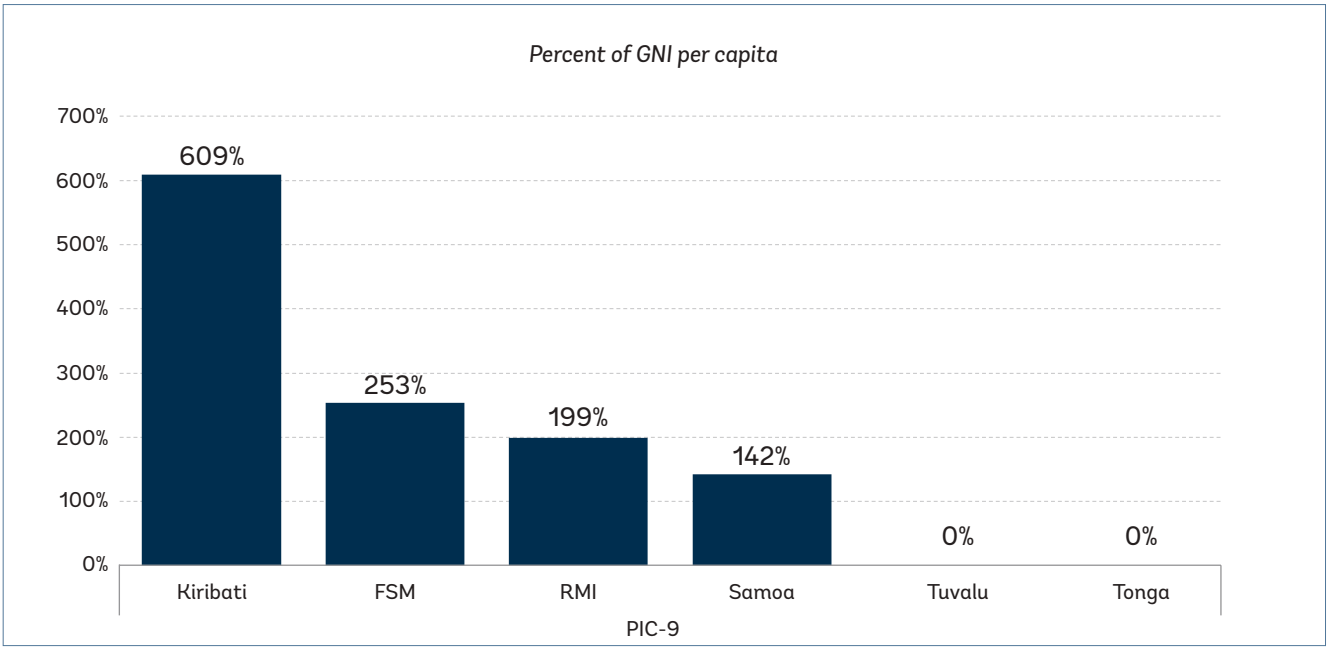


* FSM data from 2016 due to data limitations. FSM CIT applies to international firms only.
Source: Authors' analysis, UNU Wider, KPMG.

CIT thresholds are high relative to GNI per capita, but significantly lower than the VAT thresholds present in the same PIC-9 countries, creating distortions and undermining compliance-management. Part of the poor performance of the CIT regime may be due to the CIT thresholds being set at high levels relative to GNI per capita, which generates a tax policy gap (Figure 2.29). However, arguably a more significant challenge is the fact that the thresholds for CIT and VAT in each country are not the same, but rather are vastly different. For example, as can be seen by a comparison of Tables 2.1 and 2.2, the VAT threshold for Kiribati is four times that of the CIT threshold ($A 100,000 vs. $A 25,000). Meanwhile, Tonga and Tuvalu set a zero threshold for CIT but a high threshold for VAT (approx. US$43,000 and US$66,700, respectively). The rationale for such a large disparity is unclear as setting different thresholds for these two tax instruments is inconsistent with international best practice. Returning to core tax design principles, tax thresholds are typically non-zero in emerging market and developing economies

so that micro firms that lack the capacity to do proper bookkeeping are not required to file. Exempting such small firms (or placing them under a simplified tax regime) lowers the tax burden on them and reduces the costs of revenue administration for the revenue authority, which must manage taxpayers above the threshold and analyze their compliance. A firm that is considered to have grown to a size sufficient for it to meet bookkeeping requirements for CIT should be treated similarly for the VAT, and vice-versa. Critically, the revenue authority's ability to conduct compliance-risk analysis is strengthened when the thresholds are the same, as it becomes easier to cross-check filings from these two instruments when the same subset of firms are mandated to file. Thus, the divergent VAT and CIT thresholds within the PIC-9 not only result in a tax policy gap, but also likely contribute to the tax compliance gap, making it easier for taxpayers to evade paying their fair share of taxes.

Figure 2.29: CIT thresholds differ from the VAT thresholds set in the same countries



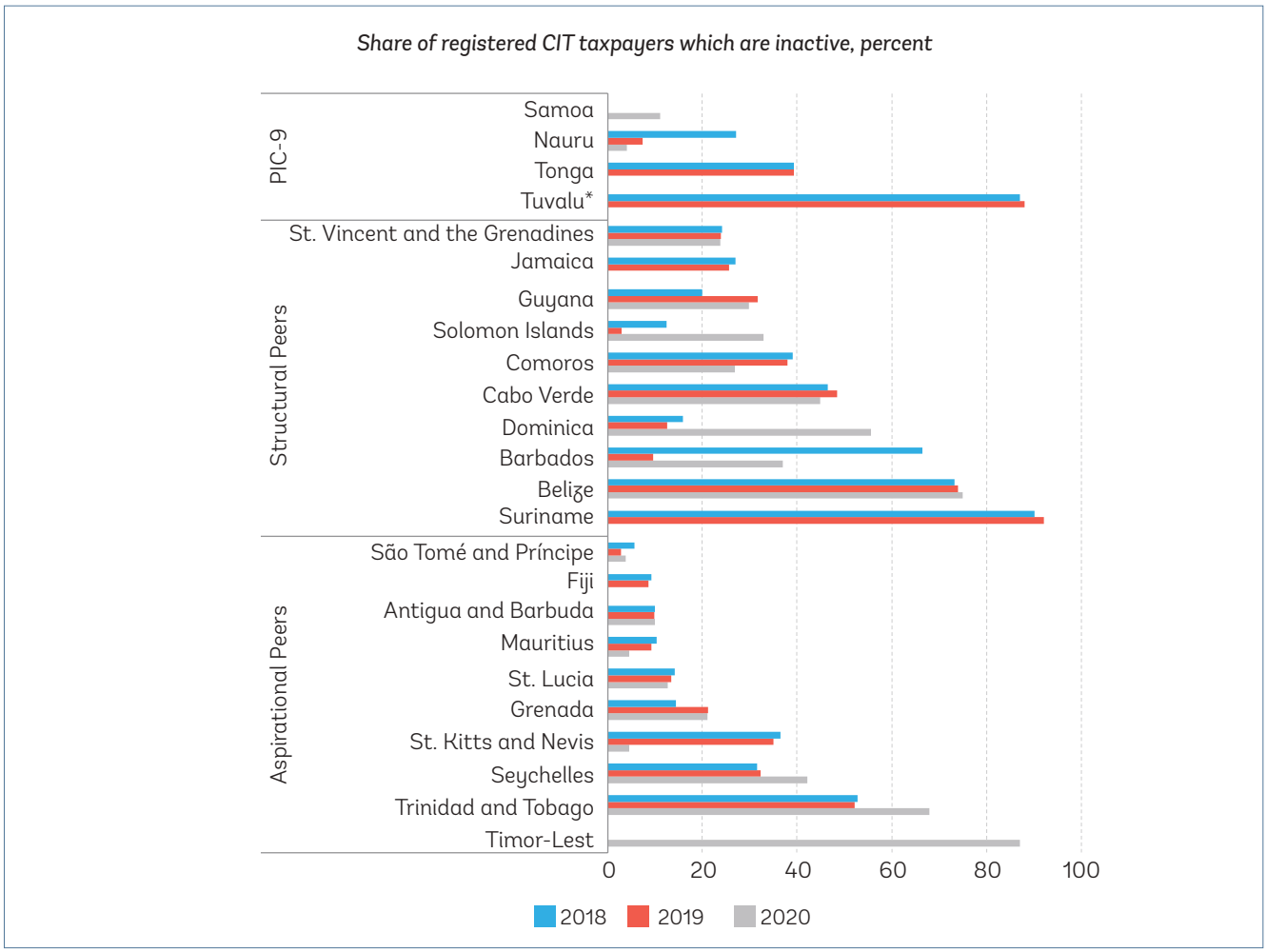
Source: Country websites, tax consultancy websites, WDI.

A high share of inactive CIT registered companies is one indicator of the presence of a substantial compliance management challenge (Figure 2.30). Many island countries struggle with having a high share of inactive companies on their CIT registry—that is, companies that do not file and thus do not pay anything. Usually, this metric is high in countries that struggle to update their tax register, their general business register, or both.[24] Outdated records undermine compliance management, as it means the revenue authority do not have updated data with which to cross-check taxpayer filings. Data on the PIC-9 for this indicator is available for Samoa,

24. Best practice would entail either having the same register (by using a unified business ID across government services), or by having separate registers that are nevertheless connected using the tax ID (by requiring that all companies that join the company register provide a valid tax ID).

Tuvalu, Tonga, and Nauru, and suggests that this challenge exists within the PIC-9. In Tuvalu, this share of inactive companies reaches a staggering 87 percent of the tax register. In contrast, Nauru reports impressive progress in tightening its CIT register, with its share of non-active companies falling from approximately 27 percent to around 7 percent in just one year (2018 to 2019), and Samoa reported low inactive shares in 2020, on par with aspirational peers.

Figure 2.30: Nauru has reduced its inactive companies, but in Tuvalu the share remains very high

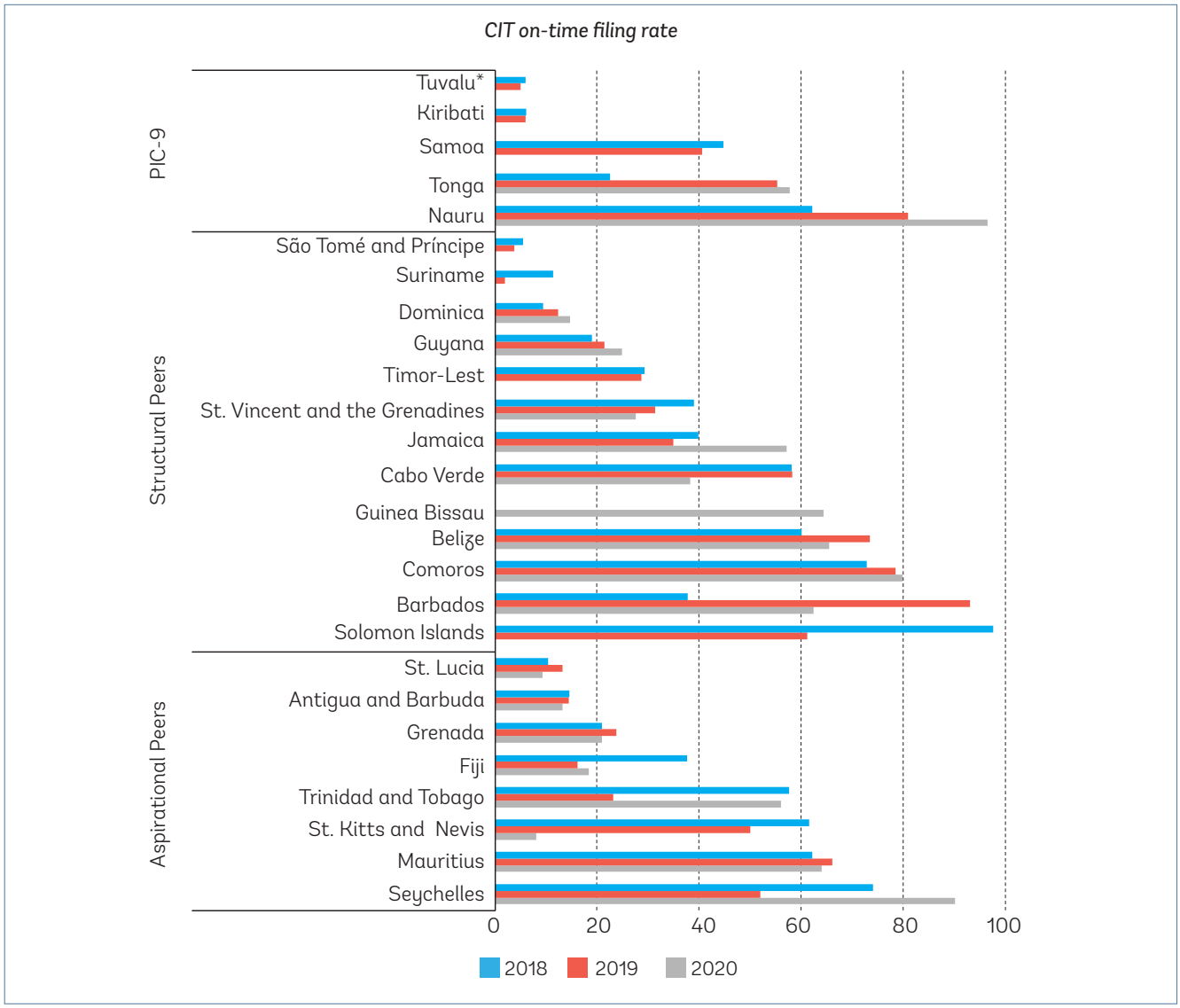


* Period for Tuvalu is 2020 and 2021. Tuvalu's inactivity measured by its filing ratio.
Source: Country data, RA-FIT.

A high share of late filing is another datum reflecting weaknesses in compliance-management. Late filing of taxes costs governments money and increases the costs of compliance-management. Moreover, in the case of VAT with its monthly filing, late filing limits the potential for tax data to be used to inform economic decision-making that requires real-time

monitoring of high-frequency data.[25] In general, a persistently high share of late filing reflects a widespread culture of noncompliance from taxpayers and weak compliance management from the revenue authority. As Figure 2.31 illustrates, many island countries suffer from a high share of late filers. However, even by this lower standard, Kiribati and Tuvalu score very poorly, with only around 6 percent of CIT filed on-time. This compares with nearly 100 percent in Nauru.[26] In Tonga, CIT on-time filing is around 55 percent, which ranks favorably in comparison with other PIC-9 countries but is poor considering Tonga's VAT on-time filing of more than 89 percent discussed earlier.

Figure 2.31: Kiribati and Tuvalu suffer more than many island countries with a high share of late filers



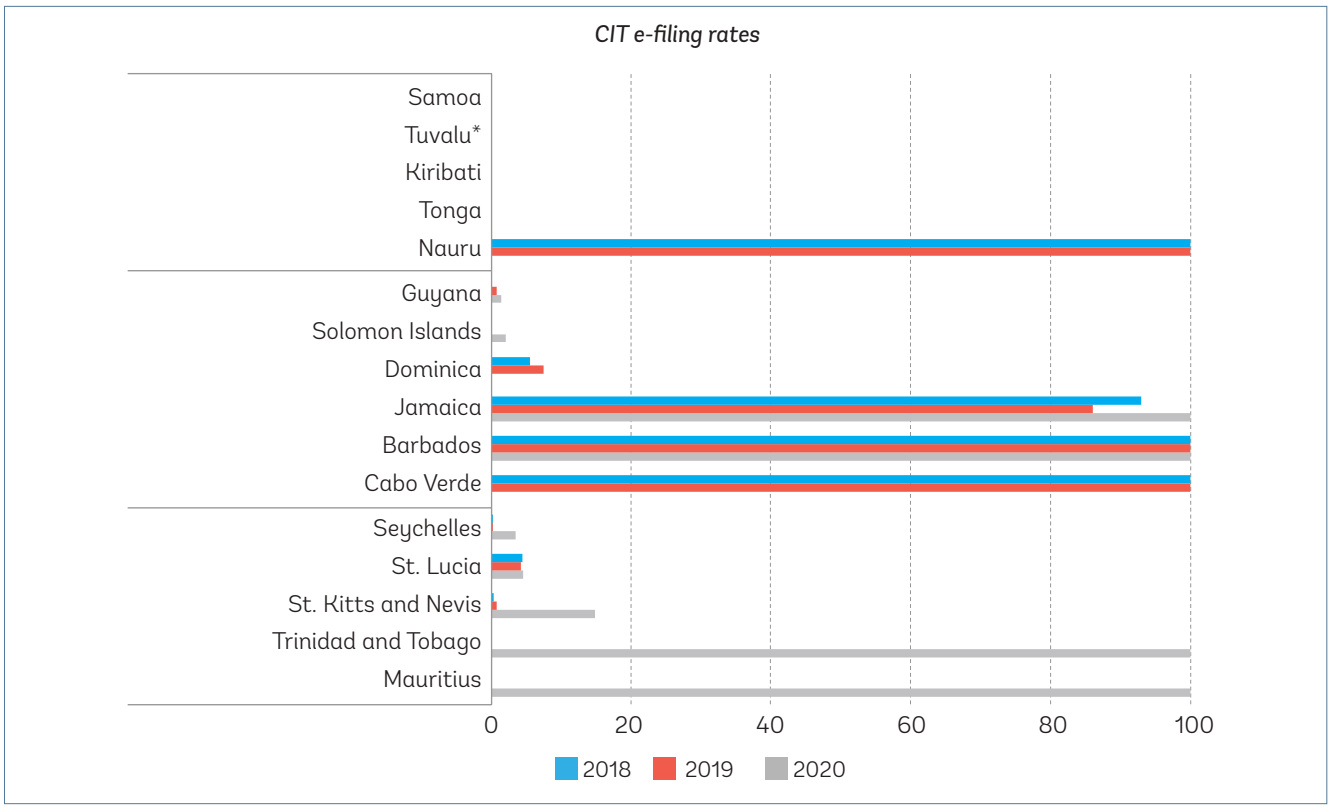
Note: Tuvalu's data cover 2020 and 2021.
Source: Country data, RA-FIT.

25. Countries with reliable monthly tax data can benefit from this in different ways to improve economic policymaking during crises. During the heights of the COVID-19 pandemic, for example, advanced economies in particular were able to draw on monthly VAT data to track the impact of the pandemic and of mobility restrictions on economic activity, which was then used to adjust mobility restrictions and/or government support measures.

26. In countries with high revenue administration capacity, the ratio of late filing is usually kept below 2–5 percent.

Rolling out e-filing as part of a broader automation of revenue administration is associated with sharp improvements in filing ratios and other core revenue administration indicators. Within the PIC-9 region, Nauru's success in rolling out e-filing for all CIT payers offers a useful case study and helps shed light on the country's strong performance with on-time filing. Among structural peers, exemplar performance can be seen in Barbados, which in 2019 recorded 100 percent e-filing and more than 93 percent on-time CIT filing (Figure 2.32). Interestingly, Barbados, Cabo Verde, and Jamaica also recorded impressive CIT e-filing at 100 percent, yet on-time CIT filing was relatively disappointing in the range of 30–60 percent (Figure 2.31). In general, factors behind late filing other than the lack of an e-filing option include an overly complex tax code and lax enforcement of filing deadlines. All these factors are worthy of investigation in the PIC-9.

Figure 2.32: **Nauru demonstrates the sub-region's capacity to achieve e-filing for all businesses**

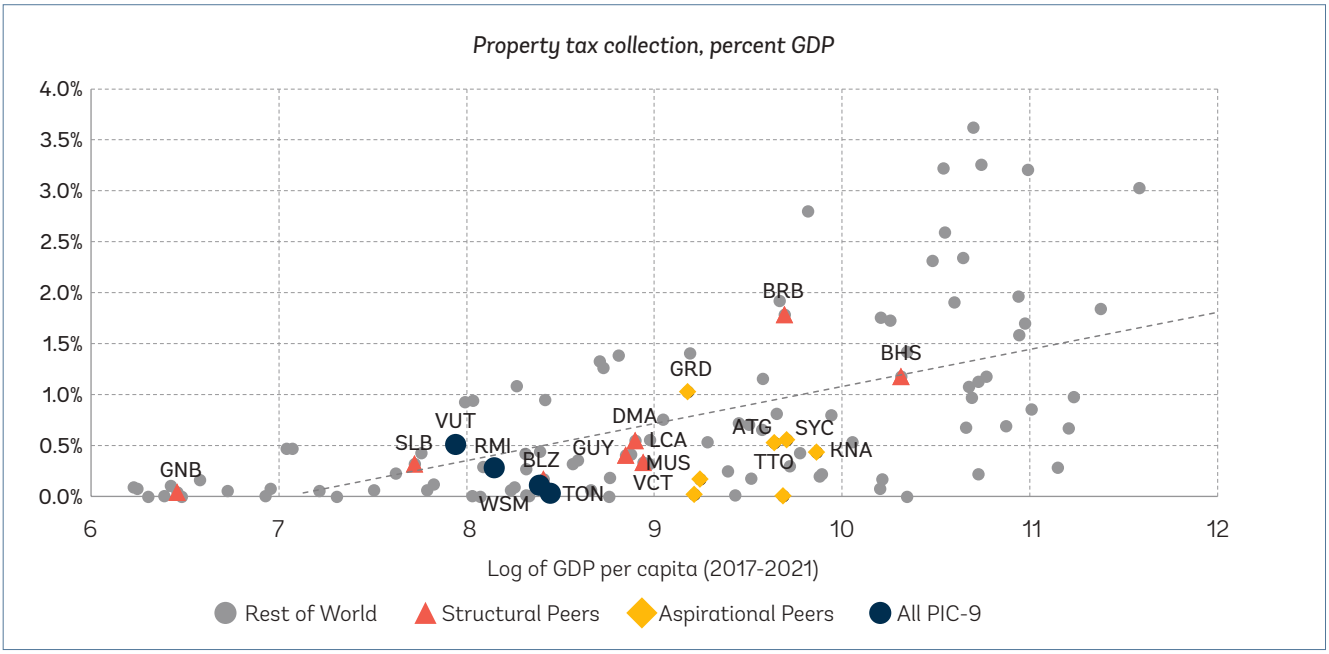


Note: Tuvalu's data cover 2020 and 2021.
Source: Country data, RA-FIT.

2.4.4 Revenue from property taxation is very low

PICs, especially Samoa and Tonga, could improve revenue and tax progressivity by collecting property taxes on par with peers at the same level of income. Property tax collection in low- and middle-income countries and small states is typically low, due to factors including incomplete property rights, low tax administration capacity, and/or concerns about fairness and reciprocity. Within the PIC-9, Tonga and Samoa property tax collection is especially low. Achieving the performance of the structural peer average would increase revenues in these two countries by about 0.5 percent of GDP. Collecting revenue via property taxes (particularly those levied on immovable property) has other advantages, including: i) lower inefficiency costs, because as a tax on wealth it does not distort economic decisions as much as taxes on productive activities; ii) progressivity, because property is generally owned by higher income deciles; iii) administrative capacity development, because innovations in record keeping tend to spill over to other administrative units; and iv) transparency and accountability, because property tax administration is highly visible to taxpayers and more easily linked to (local) government services (Ali & Fjeldstad, 2017).

Figure 2.33: **Tonga and Samoa collect less property tax revenue than peers**



Source: Country data, UNU Wider, WDI.

2.5 Sovereign rents have increased in importance

2.5.1 Recent developments

Sovereign rents have emerged as a key source of domestic revenues in the PIC-9 over the last decade (Figure 2.34 and Figure 2.35). Given limited capacity to generate domestic revenues, seven of the PIC-9 have found novel ways to generate additional revenues through sovereign rents (Samoa and Tonga are the two not benefiting from such revenues). In those seven PICs, sovereign rents—particularly fishing rents—have increased exponentially in recent years, from an average of 20 percent of revenues in 2012 to 40 percent in 2019. They were also broadly resilient to the COVID-19 shock, accounting for around one-third of total revenues in FY20–FY21. Tuvalu, RMI, and FSM have supplemented fishing revenues with other rents such as domain licensing fees for '.tv' (Tuvalu), income from offshore corporate and ship registries (RMI), and corporate income tax receipts from a captive insurance industry (FSM). Vanuatu has also generated significant rents from its Economic Citizenship Program (ECP). However, along with additional revenues, these instruments have also brought additional public financial management (PFM), Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT), reputational, and governance risks.

Figure 2.34: Sovereign rents increased significantly over the past decade…

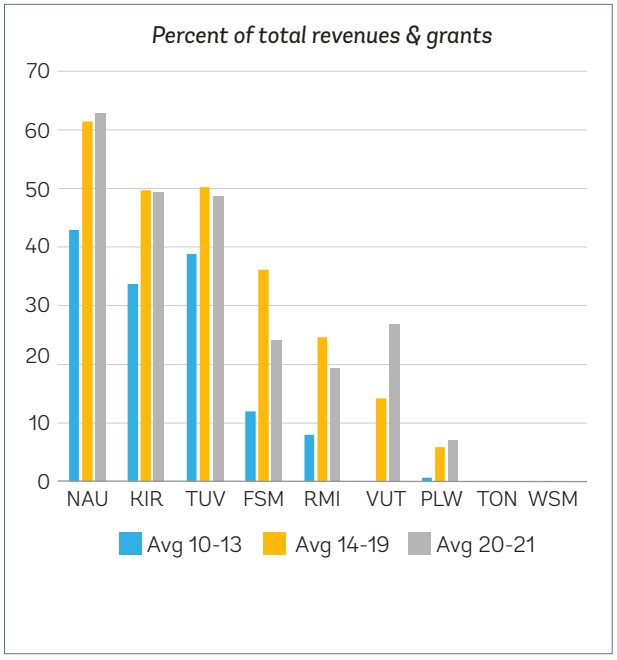
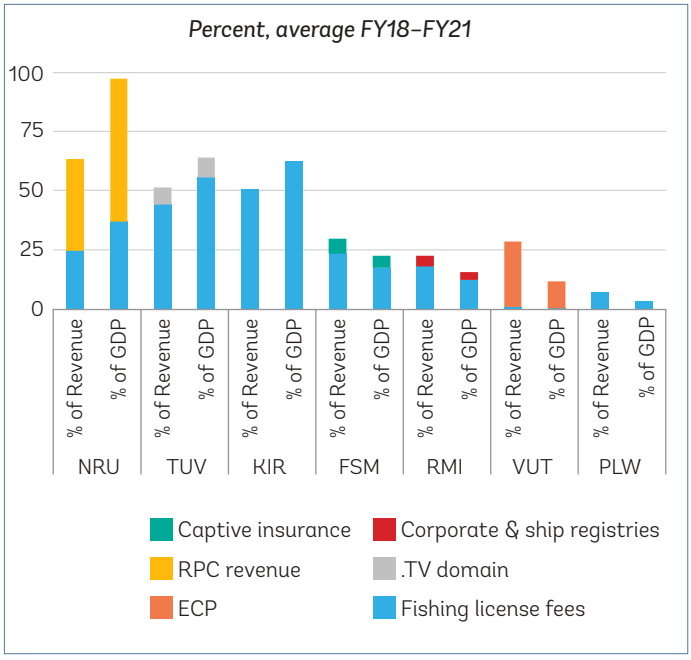


Figure 2.35: …mainly due to fishing rents, but also other country-specific novel sources



Source: IMF Article IV Staff reports, FFA Report 2021, national statistics, and World Bank staff calculations.

The fisheries sector, particularly purse seine tuna fishing in the Western and Central Pacific Ocean (WCPO), is a key driver of economic growth and a crucial source of government revenues for the PIC-9. In 1982, six of the PIC-9—FSM, Kiribati, RMI, Nauru, Palau, and Tuvalu—signed the Parties to the Nauru Agreement (PNA) under which they agreed to work together to set uniform terms and conditions for access to purse seine fishing in their exclusive economic zones (EEZs).[27] In 2007, the PNA was amended to create a cap-and-trade Vessel Day Scheme (VDS) under which these countries agreed to set a total collective limit on purse seine fishing effort, enumerated in terms of fishing days ('VDS days'), in their EEZs.[28]

Regional cooperation between PICs to limit access to their EEZs by fishing vessels has significantly enhanced their ability to capture resource rents in the form of access fees. Fishing revenues for the six PIC-9 countries involved in the PNA have increased from around US$73 million in 2011 (7.6 percent of aggregate GDP) to an average of US$325 million during 2016–2021 (peaking at US$350 million in 2019, 26 percent of aggregate GDP), with large increases in revenues for all countries. Table 2.3 shows the five-year average of the ratio of total delivered value of purse seine fishing to total fishing revenues in the six countries. On average, the region was able to extract 23 percent of the total delivered value of purse seine fishing as resource rents between 2016–2020.[29]

Table 2.3: Regional cooperation allowed PICs to extract 23 percent of total delivered value from purse seine fishing over 2016–2020

Country	Delivered value (average in US$m)	Fishing revenues (average in US$m)	Ratio of fishing revenues to delivered value
FSM	339.4	70.6	0.21
Kiribati	685.3	126.3	0.18
RMI	59.0	31.2	0.53
Nauru	194.6	58.2	0.30
Palau	11.1	8.1	0.74
Tuvalu	139.1	28.2	0.20
All countries	1428.4	322.6	0.23

Source: FFA (2021), national statistics, and World Bank staff calculations.

27. The PNA also includes Papua New Guinea and Solomon Islands.
28. Under the scheme, the countries meet every year to decide the total number of fishing days, referred to as the Total Allowable Effort (TAE), which is allocated among the countries, referred to as the Party Allowable Effort (PAEs), along with the minimum price at which fishing days (also referred to as VDS days) can be sold to avoid downward competition of prices between countries. Over the years, several different instruments for managing and using VDS days have emerged. These include: (i) the Federated States of Micronesia Arrangement (FSMA) which provides a mechanism for PNA countries' domestic vessels to access other non-home parties' waters at reduced fee rates, to support domestic industry; (ii) bilateral instruments, such as the US Treaty, which provides access to PNA waters for US fishing vessels at elevated daily rates; and (iii) multilateral instruments, which pool days across multiple countries, making them more valuable to vessel operators because of the operational flexibility it affords, generally selling for 30–40 percent more than bilateral days.
29. For Palau the data is for 2016–2019.

Aside from fishing license fees, in recent years several of the PIC-9 have found novel ways to generate additional domestic revenues. In 2016, Vanuatu launched the ECP through which non-residents can gain Vanuatuan citizenship in exchange for a specified financial investment in the country with limited residency requirements. Tuvalu has monetized its internet domain name (.tv) by charging a premium for companies in the broadcasting industry to use the domain. The Government of RMI—in a joint venture with a private firm—has expanded its offshore ship and corporate registries significantly, with over 4,500 ships and 48,000 companies registered in RMI as of 2018. FSM has developed one of the largest captive insurance industries in the world which allows a parent company to domicile a subsidiary insurance company in the FSM to underwrite its business risks (akin to self-insurance). The FSM provides a legal framework that is compliant with Japanese law but provides favorable tax conditions compared to domestic Japanese alternatives.

Non-fishing sovereign rents have increased over time and now form a significant share of government revenues for several of the PIC-9. ECP revenue in Vanuatu has increased four-fold since its launch, rising from 14 percent of revenues in FY16 to 32 percent in FY20 (from 4 to 14 percent of GDP)—although revenues fell by 37 percent in FY21. In Tuvalu, '.tv' domain licensing fees have remained steady over recent years, averaging US$7.0 million per year (10–11 percent of domestic revenues and GDP) from FY16 to FY21. Similarly, RMI has generated steady revenue from its ship and corporate registries, averaging over US$7 million per year (10 percent of domestic revenues, 3 percent of GDP) between FY16 and FY21. In FSM, the captive insurance industry has expanded since 2014, with consecutive large, one-off tax payments of US$23–77 million per year from FY17 to FY19 (18–56 percent of domestic revenues excluding captive insurance payments, 6–19 percent of GDP).

2.5.2 Challenges

Tuna stocks in the region are expected to decline and move eastwards in the coming decades due to climate change, with uneven impacts on fishing revenues across the region. Oceanographic changes linked to warming seas are predicted to alter tuna migration patterns and mortality rates. Models predict a decrease in tuna biomasses in the Pacific by 2050 and a shift of the biomasses eastward, resulting in a 9–26 percent decline in tuna biomass in the EEZ's of FSM, RMI, Palau, Tuvalu, and Nauru (Conservation International, 2018), resulting in lower fishing rents.[30] Of the PNA members, only Kiribati and the Cook Islands are expected to benefit from the shift in tuna biomass (increasing by 15 and 18 percent, respectively).

Incentives for onshore fish processing have not delivered the expected benefits in terms of domestic economic development and job creation. Over the past decade, some of the PIC-9 have provided incentives to fishing companies to base their vessels within their jurisdiction and invest in on-island processing activities via preferential access and discounted prices for VDS days, tax exemptions, and other incentives. These foregone revenues can be substantial.[31] The objective of this 'domestication' of vessels and fish processing is to catalyze broader economic development and job creation. However, evidence suggests that the expected benefits of these initiatives are not being realized. After reviewing several fish processing enterprises in the region,

30. PNA members PNG, Solomon Islands, and Tokelau are also expected to see declines in tuna biomass in their EEZs.

31. Detailed information on fiscal incentives is not public, but available information suggests that forgone public revenue in the RMI could be around US$1.8–4 million per year (2.4–5.3 percent of domestic revenues, 0.7–1.6 percent of GDP).

the Pacific Islands Forum Fisheries Agency (undated) concluded that "the weight of evidence suggests the granting of concessions to achieve domestic processing outcomes in the Pacific Islands has been largely unsuccessful".

In some cases, non-fishing sovereign rents represent considerable governance, reputational, and macroeconomic risks. The opaque management of the RMI's ship and corporate registries and Vanuatu's ECP has led to concerns regarding the extent to which adequate AML/CFT practices are being upheld. This has resulted in both nations being listed as 'non-cooperative for tax purposes' by the EU. Across the PIC-9, concern about the adequacy of AML/CFT frameworks has led to the closure of correspondent banking relationships (CBRs) as part of the global 'de-risking' phenomenon (World Bank, 2018). The closure of the few remaining CBRs across the region would significantly disrupt cross-border financial flows and increase the risk that the PIC-9 could be cut off from the international financial system. This would have significant negative impacts for macroeconomic stability and fiscal sustainability. In an extreme scenario, external aid and other foreign exchange flows could be severely disrupted, resulting in significant impacts on economic activity, service delivery, and household welfare. Finally, the registries expose RMI to reputational risks in the event of a serious environmental or diplomatic incident, such as an oil spill by an RMI-flagged ship or corporate malfeasance by an RMI-registered company.

2.6 How can the PIC-9 strengthen revenue performance?

Revenue policy and administration reform can help strengthen the quality of revenue collection and raise more revenue to help build the PIC-9's fiscal buffers. Standard benchmarking of the PIC-9's revenue collection compared to countries with similar GDP per capita does not capture the region's need for higher-than-average revenue collection. A unique set of challenges, including high climate risks, missing or incomplete markets, and high unit costs in the context of small, remote, and highly dispersed populations, means that fiscal policy has a much bigger role to play than in other countries. Revenue reforms can be organized around three broad policy objectives: (i) improving the quality of indirect taxation; (ii) increasing the use of direct taxation; and (iii) maximizing the benefits of sovereign rents.

2.6.1 Improving the quality of indirect taxation will support efficiency and fairness

Closing the VAT gap will improve VAT efficiency and fairness. The analysis in this chapter has found that broad consumption taxes are the workhorse of the tax system in most of the PIC-9. Yet, large VAT gaps persist, in part due to policy design decisions that have been assessed to be costly, distortive, and unfair. For example, at a similar level of efficiency to Vanuatu, Kiribati could be collecting an additional 6 percentage points of GDP in VAT revenue. Priority VAT reforms include:

a. ***Rationalizing VAT exemptions***. VAT expenditures have served in practice as a form of opaque, poorly-managed spending through the tax system. Most PICs have not properly costed their VAT expenditures, or rigorously assessed the cost–benefit rationale behind each incentive offered. Tonga is an exception, as it has undergone a review of its VAT exemptions, but its findings point to the need to rationalize inefficient and regressive measures, including those in the power sector. Here, Vanuatu's system of minimizing VAT exemptions and zero-rating, modeled on New Zealand, represents a gold standard within the PICs.

b. ***Lowering the VAT thresholds in-line with CIT thresholds.*** Very high VAT thresholds not only substantially lower the base for the VAT, but also create distortions in the economy, creating incentives for firms to limit growth and investment, split up into smaller sized firms, or under-report their sales. Vast differences between the VAT and CIT thresholds in Kiribati and other PICs exacerbate these distortions. Given that CIT thresholds are assessed as generous when compared to GNI per capita, a starting point for reform of tax thresholds in the PIC-9 is to lower VAT thresholds to match these CIT thresholds. This reform would indirectly support strengthened compliance management across all taxes as it would provide the revenue authorities with a wealth of new data which it can use to help cross-check filing and reporting accuracy of existing VAT and CIT filers.

c. ***Strengthening VAT administration, including through rolling out VAT e-filing and e-payment.*** Many PICs would benefit from investing in enabling technology to improve capacity of their revenue administration. Rolling out VAT e-filing and e-payment are two ways that technology can be used to reduce the administrative burden of complying with taxes, which can boost voluntary compliance. Data from monthly e-filing can also be used to enhanced risk analysis and audit selection, strengthening the revenue enforcement function.[32] Technology and data can only be effective if they are used as part of a comprehensive compliance improvement strategy that clearly identifies risks for different segments of taxpayers and implements a set of measures to mitigate these risks.

For FSM and RMI, moving from a gross-revenue regime to a VAT regime is a critical reform, which can improve horizontal and vertical equity and increase revenue. Having gross revenue, instead of value-added, as the basis for a broad consumption tax is inefficient, unfair, and often highly regressive. The effective tax burden under such a regime often varies sharply from one sector or firm to the next because of specific characteristics. For example, the trade sector may generate a lot of sales, but much of it may have limited value-added associated with it (e.g., reselling imported final goods). Similarly, micro and small enterprises may have low productivity and thus generate lower value-added. In FSM and RMI, a gross revenue-based system means such sectors and firms lose out, facing a higher effective tax rate than sectors that generate higher value-added or larger firms that are more productive. Eliminating such distortions through shifting to a VAT system with as broad a base as possible will thus improve the equity and efficiency of indirect taxation in FSM and RMI and will likely result in higher revenue over the medium-term (depending on how the statutory rate is set).

Shifting from high international trade taxes to high excises on tobacco, alcohol, and sugar-sweetened beverages can be revenue-neutral and support economic, health, and fiscal objectives over the medium term. Lowering trade taxes as part of PACER Plus will result in revenue losses in the short term, though it could support economic growth within the region over the medium term. The lost revenue can be compensated through excise reform on tobacco, alcohol, and sugar-sweetened beverages. For example, FSM, RMI, Tuvalu, and Kiribati can all raise

32. The use of electronic fiscal devices (EFDs), such as those that have are being gradually implemented in Samoa (the Tax Invoice Monitoring System) and Tonga (the Electronic Sales Register System), can also support compliance management. However, evidence from EFDs in other countries has shown that they are only effective as part of a broader compliance management strategy. For more, see Casey & Castro (2015).

their excise rates and simplify the tariff structure on cigarettes. Given the NCDs burden in the PIC-9 (Chapter 4), such a reform could result in a triple dividend: increasing revenue; reducing the costs of health expenditure needed to manage tobacco-related diseases; and improving households' welfare and human capital.

2.6.2 Increasing the use of direct taxation will increase progressivity and raise more tax revenue

Direct taxation instruments are central to improving the progressivity of tax systems but are currently under-utilized by the PICs. Vanuatu has no income taxes at all, while Palau has no corporate income tax. Most of the PIC-9 rely on personal income taxation (payroll taxes). Yet, even here, the tax net in countries like Tuvalu appears very narrow due to high thresholds and noncompliance, and the rate for the top marginal bracket is low compared to peers in several PIC-9 countries. Property taxes, which are the most efficient and progressive type of direct taxes, are also very low. Increasing the use of direct taxation within the PIC-9 can be achieved through several measures, including:

a. ***Wider use of the CIT regime.*** Introducing CIT regimes with a broad base can raise more revenue and improve the stability and fairness of revenue collection. In general, countries that rely on a larger set of tax instruments typically report lower revenue volatility and higher revenue resilience during economic shocks. Moreover, CIT is typically considered a more progressive tax instrument than VAT, though design considerations matter greatly. Minimizing CIT exemptions and strengthening anti-base erosion and profit-shifting measures are some of the ways that PICs can help make the CIT system fairer.

b. ***Broader PIT with a more progressive rate structure and individual filing.*** Several of the PICs (FSM, Palau, RMI, Samoa) have a PIT regime composed of just two marginal rate brackets, with Samoa also having a tax-free threshold at the bottom. This bracket structure reduces the progressive potential of the PIT and can contribute to a narrow PIT net (when combined with a high threshold). A broader, more progressive PIT structure may be considered with three to four marginal rate brackets, like the structure of the PIT in Kiribati, Tonga, and Tuvalu, as well as other international peers. A higher top marginal rate bracket would also increase progressivity and generate revenue, with many of the PICs currently having a lower top rate than peers. Moreover, moving from PIT based on employer withholding taxes to a system based on individual filing can contribute to higher levels of tax compliance if the reform is accompanied with complementary revenue administration reform to strengthen compliance risk management capacity.

c. ***Stronger taxation on immovable property.*** Most, if not all, of the PIC-9 can strengthen property taxes, particularly those levied on immovable property, as this is a widely under-utilized tax despite its efficiency and progressivity benefits. Achieving the performance of the structural peer average would increase property tax revenues in Tonga and Samoa by about 0.5 percent of GDP, while in RMI, it could add about 0.25 percent of GDP. Since taxes on immovable property are levied locally, strengthening them can increase accountability on local spending, which can help improve local service delivery. Depending on country context, higher collection could come from a combination of higher rates, updating the property tax cadaster, and/or improving compliance.

d. ***Dedicated focus on managing compliance of and relationships with large taxpayers.*** The PICs are small economies wherein a small number of large firms within each country dominate large swathes of the economy. This context makes it even more important and feasible for the PICs to focus on improving revenue administration capacity on large taxpayers which contribute most of the tax revenue. Dedicated large taxpayer offices (LTOs) have been established in Nauru, Samoa, Tonga, Tuvalu, and Vanuatu. But the capacity of these LTOs remains limited and is tied to broader capacity constraints of the revenue administration. Building relationships with these select taxpayers and facilitating knowledge sharing and automation of tax services, are some of the complementary measures that can be undertaken to strengthen voluntary compliance. Upskilling in areas such as anti-base erosion and profit shifting (BEPS) and anti-money-laundering is important if governments are to manage risks from tax avoidance and illicit financial flows that are more likely to be relevant to large taxpayers. Finally, gradually broadening the tax base will improve perceptions of fairness, and in turn, compliance, while reducing the fiscal risks caused by relying on highly concentrated revenue sources.

2.6.3 Maximizing the benefits of sovereign rents will help maintain high non-tax revenue

Annual volatility and the potential long-term decline in the regional tuna catch suggests that it is in the countries' benefit to pursue closer regional cooperation to maximize the long-term benefits from their jointly managed tuna resource. While the total value of the regional tuna catch has been relatively stable over the past decade, annual fish migration patterns make national tuna catch values—and national revenues—highly volatile. For example, over the past decade, annual catch values have fluctuated by 2–4 times across FSM, RMI, Kiribati, Nauru, and Tuvalu, and by up to 20 times in Palau. Revenues have also been volatile, increasing by up to 100 percent from one year to the next, complicating budget management. It is therefore in these countries' interest to seek to maximize the unit value of the VDS. Reforms to the VDS via deeper regional integration provide significant opportunities for PNA members to capture additional rents, and to smooth the volatility in annual revenues.

Reforms that provide greater flexibility and transferability of a VDS day would make the access right more valuable for fishing companies, potentially increasing the average price. Such reforms include:

a. ***Increasing 'pooling':*** Pooling of VDS days involves multiple PNA members jointly selling a portion of their VDS days and allowing the purchasing vessel to use these days in any of their EEZs. Pooled VDS days thus expand the space over which current access rights apply, increasing their value. PNA members have already begun experimenting with pooling in recent years with several lessons learned and encouraging results, with prices for pooled days much higher than the VDS minimum of US$8,000/day. Rents could be further increased by: (i) expanding the number of VDS days sold via pooling mechanisms; and (ii) increasing the number of EEZs to which pooled days apply through expanding regional cooperation.

b. ***Extending the duration of tuna fishing rights beyond one year:*** PNA members could collectively or individually begin to extend the 'life' of a VDS day that they issue (that is, the duration during which the fishing right can be utilized). For example, from the current period of one year (that is, VDS days currently expire at the end of each calendar year) to three, five, or even ten years (in the long term). This is currently under discussion in the regional discourse to 'capitalize' the VDS allocations.[33]

c. ***Allowing transferability of tuna fishing rights between authorized users:*** In practice, this involves permitting the exchange of VDS days on a secondary market. Theory and empirical research indicate that allowing transferability between users (that is, fishing companies) increases the overall economic outcomes from a fishery by creating a market mechanism to ensure that marginal benefits are realized (Aqorau et al., 2020). It allows users to restructure in response to changes in technology, markets, resource conditions, and the environment—thus making the access right more valuable.

Implementation of these reforms could lead to an annual increase in fisheries sector revenues of 8–25 percent of GDP in FSM, RMI and Kiribati; while higher revenues are also possible in Palau, Nauru, and Tuvalu (Table 2.4). Undertaking any one of these reforms would be expected to increase the value of the property right. However, implementation of all three reforms would likely unlock value that is far higher than the sum of the individual benefits. Bioeconomic modelling of the region's purse seine fishery suggests that implementation of these reforms could see average VDS prices increase to US$13,000 to US$16,500 per day (Arnason et al., 2015). For example, over the period 2016–2020, FSM's annual PAE allocation of 6,135 days translated into US$71 million in VDS access fees, equivalent to US$11,504 per vessel day.[34] An increase in the average sale price would thus have generated an additional US$9–31 million—an increase in annual revenues of 2–8 percent of GDP. For Kiribati and RMI, the benefits would have been even greater—at 9–28 percent of GDP and 5–9 percent of GDP, respectively. Palau, and Tuvalu already earn, on average, around US$16,000 per day for their VDS days, while Nauru earns over US$25,000 per day, on average.[35] Thus, this analysis does not indicate substantial gains for these countries. However, to the extent that these countries can retain the premium earned on their VDS days over and above the higher base price, then they would also be expected to gain from these reforms.

33. See for example, https://www.pnatuna.com/content/pnao-gears-vds-expansion-business-plan-development-2019
34. The PAE allocations for the countries are 2014 values which is the latest year for which data is available (Yeeting et al., 2018).
35. These very high average VDS day prices are likely due to these countries selling a high proportion of their days via bilateral and multilateral arrangements, such as the US Treaty, which are sold at a premium over the base VDS price.

Table 2.4: Potential impact of VDS reforms on revenues

Country	PAE allocation (days)	Average annual revenues, 2016–20 (US$ millions)	Potential additional revenue (US$ millions)		Potential additional revenue (% of 2021 GDP)	
			Lower estimate	Upper estimate	Lower estimate	Upper estimate
FSM	6,135	71	9.2	30.7	2.3%	7.5%
Kiribati	11,187	126	19.1	58.3	9.3%	28.3%
RMI	3,292	31	11.6	23.1	4.5%	8.9%
Nauru	2,292	58	-28.4	-20.4	-21.4%	-15.3%
Palau	510	8	-1.5	0.3	-0.7%	0.1%
Tuvalu	1,764	28	-5.3	0.9	-8.4%	1.4%
PIC-9	25,180	323	4.7	92.9	0.4%	7.2%

Source: World Bank staff calculations.

Regular cost–benefit evaluations are necessary to ensure that any financial incentives to fishing companies are achieving their desired outcome(s). Global evidence suggests that the effectiveness of incentives in attracting investments may be limited and, at best, only influence investment decisions at the margins (Echandi et al., 2015). As mentioned previously, the PIC-9's economic geography also raises costs of production and limits international competitiveness. There is thus a risk that temporary investment incentives to attract new investment may turn into permanent subsidies to retain activities that would not be competitive without such subsidies. In an extreme case, private providers may maintain 'shell' activities only to extract the financial incentives from government. Consequently, the case for new or continued investment incentives should be carefully and regularly studied to ensure that they deliver net economic and social benefits. It is also critical to assess the lifetime cost of any incentives considered. The projected benefits of such incentives should be weighed against the alternative uses of government revenues, such as via increased spending to develop the region's human capital.

The PIC-9 also need to intensify efforts to strengthen AML/CFT frameworks. Such efforts are critical to protect macroeconomic and financial stability. In RMI and Vanuatu, key actions include improving the transparency of financial flows and reporting related to the ship and corporate registries and ECP. Across the PIC-9, authorities should ensure that AML/CFT provisions in financial sector legislation are aligned with Financial Action Task Force (FATF) standards.[36] This can be supported by undertaking regular AML/CFT national risk assessments to identify key gaps. Efforts to strengthening AML/CFT supervision framework, financial transaction reporting, as well as on-site and off-site supervision of banks, are also key.

36. The FATF's 40 recommendations on money laundering and nine recommendations on terrorism financing are recognized as the relevant global standard for AML/CFT procedures. They are intended to be implemented at the national level through legislation and other legally binding measures.

2.6.4 Summary

The reforms discussed in this chapter can help the PIC-9 to raise a substantial amount of revenue, and improve the quality of revenue collection, making the system fairer and less distortive of growth. Revenue reform priorities vary by country, reflecting the PIC-9 countries' different strengths and weaknesses within their revenue systems. In fact, this review has found many informative examples of good practice among the PIC-9 themselves, suggesting considerable potential benefits from intra-region cross-support and peer-learning. The World Bank and other donors may be well placed to facilitate such collaboration. Table 2.5 lists some suggested priorities for each of the PIC-9 countries, with an approximation of the revenue impact these reforms may have. Annex A summarizes the methodology behind these estimates. Some revenue reforms that do not affect economic activity can be implemented in the short-term, including administrative reforms, and property tax reforms. Other reforms can be introduced once the economic recovery is underway, helping to finance the needed human capital spending discussed in the other chapters of this PER. These reforms should be prioritized and sequenced as part of a medium-term revenue strategy that is integrated in the medium-term fiscal strategy, in support of green, resilient, and inclusive development.

Table 2.5: Summary of revenue policy actions and potential impacts

Policy Action and Context	Sector	Potential Impact	Recommended Timing
Kiribati			
1. Close part of the VAT gap, through (i) lowering VAT threshold; (ii) rationalizing VAT exemptions; (iii) easing the VAT admin burden (e-filing, e-payment, and timely VAT refunds)	Tax	Up to US$10.7m (5.2% GDP)	*Commence admin reforms in short term, continuing policy reforms over medium term*
2. Improve CIT productivity, through a focus on compliance management, including: (i) rolling out e-filing and e-payment; (ii) enforcing on-time filing; (iii) dedicated focus on compliance management of largest businesses	Tax	Up to US$1.9m (0.9% GDP)	*Develop medium-term strategy, but begin implementing in short term*
3. Increase the VAT statutory rate in-line with peers	Tax	Up to US$1.2m (0.6% GDP) for every 1 pp increase in VAT rate	*Medium term (2–4 years)*
4. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	Fishing Revenue	US$19.1–58.3m (9.3–28.3% GDP)	*Longer term (4+ years)*

Policy Action and Context	Sector	Potential Impact	Recommended Timing
Nauru			
1. Introduce a broad consumption tax	Tax	Up to US$8.8m (6.6% GDP)	*Medium term*
2. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	Fishing Revenue	Potential positive impact	*Longer term*
RMI			
1. Strengthen tobacco taxation by raising rates and simplifying tariff structure	Tax	Raise revenue and reduce health impacts	*Short term (<2 years)*
2. Move from Gross Revenue Tax to a VAT with a broad base (low threshold and limited exemptions)	Tax	Up to US$9.3m (3.6% GDP)	*Medium term*
3. Strengthen property tax collection to the level of peers	Tax	Up to US$0.5m (0.2% of GDP)	*Medium term*
4. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	Fishing Revenue	US$11.6–23.1m (4.5–8.9% GDP)	*Longer term*
FSM			
1. Strengthen tobacco taxation by raising rates and simplifying tariff structure	Tax	Raise revenue and reduce health impacts	*Short term*
2. Collect more from PIT, through adding a new top PIT rate, rationalizing exemptions, and/or improvements in compliance management	Tax	Up to US$1.2m (0.3% GDP)	*Develop medium-term strategy, but begin implementing in short term*
3. Improve productivity of CIT, through (i) lowering CIT threshold; (ii) improving compliance management; (iii) rolling out CIT e-filing and e-payment	Tax	Up to US$2.0m (0.5% GDP)	*Commence admin reforms in short term, continuing policy reforms over medium term*
4. Move from Gross Revenue Tax to a VAT with a broad base (low threshold and limited exemptions)	Tax	Up to US$7.7m (1.9% GDP)	*Medium term*
5. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	Fishing Revenue	US$9.2–30.7m (2.3–7.5% GDP)	*Longer term*
Palau			
1. Increase the VAT statutory rate in-line with peers	Tax	Up to US$1.1m (0.5% GDP) for every 1 pp increase in VAT rate	*Medium term*
2. Introduce a CIT regime	Tax	Up to US$6.8m (3.2% GDP)	*Medium term*
3. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	Fishing Revenue	Potential positive impact	*Longer term*

(continued on next page)

Policy Action and Context	Sector	Potential Impact	Recommended Timing
Samoa			
1. Improve productivity of CIT through rationalization of CIT incentives, strengthening anti-tax avoidance measures, and improvements in compliance management	Tax	US$16.9m (2.0% GDP)	*Develop medium-term strategy, but begin implementing in short term*
2. Strengthen property tax collection to the level of peers	Tax	US$3.4m (0.4% GDP)	*Medium term*
Tonga			
1. Reduce tax exemptions and zero ratings on consumption tax, excise tax, and customs duties, particularly for SOE fuel imports	Tax	Up to US$31.0m (6.2% GDP)	*Commence in the short term, continuing over medium term*
2. Improve VAT compliance management through administrative reforms	Tax	US$16.0m (3.2% GDP)	*Develop medium-term strategy, but begin implementing in short term*
3. Strengthen property tax collection to the level of peers	Tax	US$2.0m (0.4% GDP)	*Longer term*
Tuvalu			
1. Strengthen tobacco taxation by raising rates and simplifying tariff structure	Tax	Raise revenue and reduce health impacts	Short term
2. Improve CIT efficiency, including by (i) updating the CIT register; (ii) rolling out CIT e-filing and e-payment; (iii) enforcing on-time filing	Tax	Up to US$1.5m (2.4% GDP)	Develop medium-term strategy, but begin implementing in short term
3. Increase the VAT statutory rate in-line with peers	Tax	Up to US$0.2m (0.3% GDP) for every 1 pp increase in VAT rate	Medium term
4. Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	Fishing Revenue	Up to US$0.9m (1.4% GDP)	Longer term
Vanuatu			
1. Improve VAT efficiency to the level of Samoa, focusing on improvements in compliance management	Tax	US$11.3m 1.2% GDP	Develop medium-term strategy, but begin implementing in short term
2. Introduce a PIT regime	Tax	US$24.5m 2.6% GDP	Medium term
3. Introduce a CIT regime	Tax	US$30.1m 3.2% GDP	Longer term

3. Education

3. Education

3.1 Introduction

The PIC-9 are a heterogeneous group, which differ by their size, level of development, demographic dynamics, the quality of education provided, and, as this chapter will reveal, how much they spend on education. The total population of these nine countries is below one million, with the three smallest countries—Tuvalu, Palau, and Nauru—representing less than 5 percent of the population of the group (Table 3.1). Five out of nine of these countries, mostly the smallest ones, face a declining child population between now and 2040.[1] Total enrollment in pre-university education[2] in these nine countries is only about 275,000, and most have tiny education systems, with at most a few hundred schools. Palau is the only country where education is close to developed country levels, with virtually all of its primary students acquiring foundational literacy skills. In the rest of the region, estimated interim learning poverty—an international measure of how many 10-year-olds are not proficient readers—ranges from 53 to 73 percent.[3]

Table 3.1: The education systems are small in all countries, but their size varies widely

Descriptive statistics of the countries' education systems

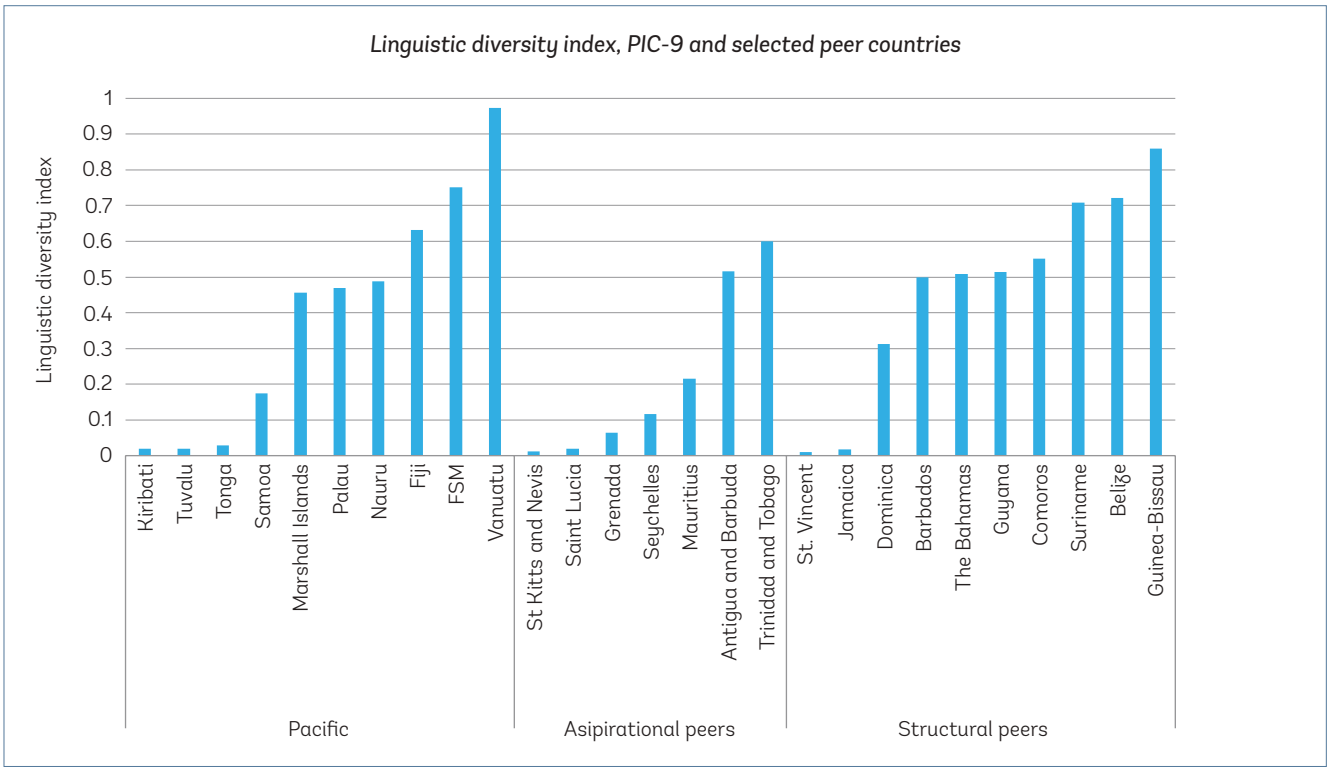
Country	Population	Per capita GDP 2020[a]	Total enrollment	Yearly growth in enrollment 2015-2019	Estimated interim learning poverty (%)
Vanuatu	307,150	2,854	92,644	3.6%	58
Samoa	198,410	6,417	64,114	0.9%	59
Kiribati	119,446	2,259	47,435	4.4%	71
FSM	115,021	3,369	23,823	-3.7%	53
Tonga	105,697	6,347	25,289	-1.9%	71
RMI	41,000	3,932	14,260	0.1%	61
Palau	18,092	15,473	3,439	-1.0%	10
Tuvalu	11,792	4,411	3,046	-0.4%	73
Nauru	10,834	13,594	3,168	-3.3%	59
Total	**927,442**	**4,441**	**276,760**	**1.6%**	**61**

Source: World Bank, National Education Digests, Census for Vanuatu.
[a] In 2017 constant international dollars based on purchasing power parity (PPP).

1. The latest household surveys in the RMI showed that enrolment rates increased while the enrolled population stalled, indicating that the children's population has been receding despite a high fertility rate, suggesting massive out-migrations of families, which is consistent with the last census results. Families of Compact of Free Association (COFA) countries can relocate freely to the US. The story is similar in Tonga, where the fertility rate is even higher, while enrolment rates have climbed and the enrolled population has dropped, also suggesting outward migrations of families.
2. Includes private and public enrolment from Early Childhood Education (ECE) to upper secondary and excluding post-secondary and tertiary enrolment.
3. See also A.2 Technical appendix. To raise more awareness about the poor quality of education, in October 2019, the World Bank introduced the concept of Learning Poverty. Learning poverty is defined as being unable to read and understand a simple text by age 10. And, by defining it this way, the learning poverty indicator brings together schooling and learning indicators; it begins with the share of children who have not achieved minimum reading proficiency (as measured in schools) and is adjusted by the proportion of children who are out of school (and are assumed not able to read proficiently).

The group of countries also differ widely in terms of their linguistic diversity. At one end, Vanuatu has one of the highest degrees of linguistic diversity in the world, while at the other end, Kiribati and Tuvalu have among the lowest levels of linguistic diversity in the world (Figure 3.1). Other things equal, countries with a higher degree of linguistic diversity face significant challenges in terms of providing quality education for all, compared to countries with lower linguistic diversity. Specifically, costs will be higher because of the need to develop learning material and instruction in more languages. Second, when assessed, on average, performance is likely to look weaker than in more homogenous countries because, inevitably, a high number of students will be assessed in a language that is not their mother tongue.

Figure 3.1: Linguistic diversity varies widely among the PIC-9



Note: Linguistic diversity index: 0 = everyone has the same mother tongue; 1 = no two people have the same mother tongue.
Source: Simons & Fennig, 2017.

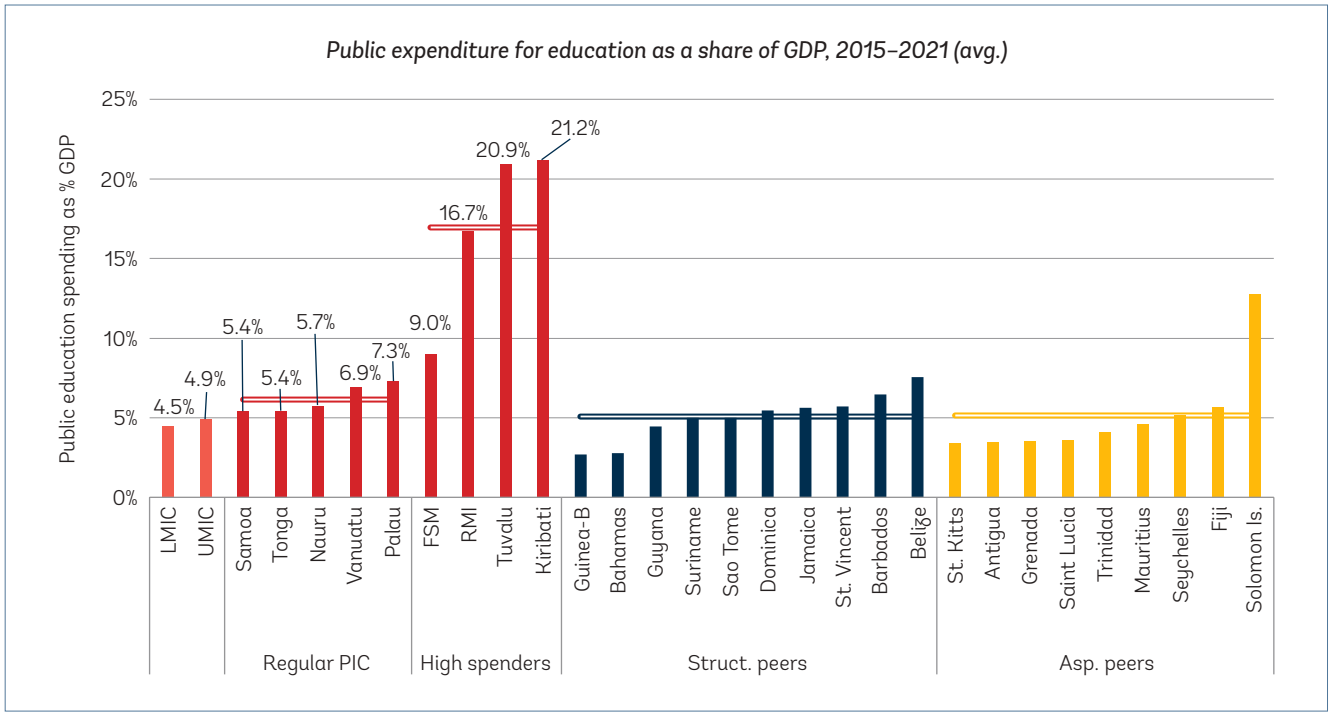
This chapter sets out to answer the following questions: How much is currently spent on education? How is education spending financed? What is the composition of that spending? How has this changed over the past decade? How does it compare to PIC-9 peers? What are PICs achieving for the money spent? Why are PIC countries not achieving more for the resources spent? And, where data allow for such analysis: Is there scope for improving the efficiency and equity of existing spending on education and, if so, how? Based on these findings, the chapter ends with policy recommendations.

3.2 In terms of public spending, how much are countries spending on education and has this changed over time?

3.2.1 The picture is mixed, with PICs falling in two groups: those which spend a lot and the others which spend like their peer countries

The PIC-9 as a group is spending more on education than their typical middle-income peers. But for half of these, spending is either similar or only slightly above peers. Public funding for education varies from 4.8 percent in Tonga to 20.7 percent of GDP in Tuvalu (Figure 3.2). Average public education spending was about 5.6 percent of GDP for the group of Tonga, Samoa, Nauru, Vanuatu, and Palau—that is 10 percent higher than structural and aspirational peers. But the actual gap is likely smaller because UNESCO Institute for Statistics (UIS) data (which has been used for peers) are not always comprehensive. In fact, when UIS data are used for the PIC-9, rather than national budget data, the gap narrows to 6 percent.

Figure 3.2: The level of spending is very high for FSM, RMI, Kiribati, and Tuvalu but on par with peers for other PIC-9



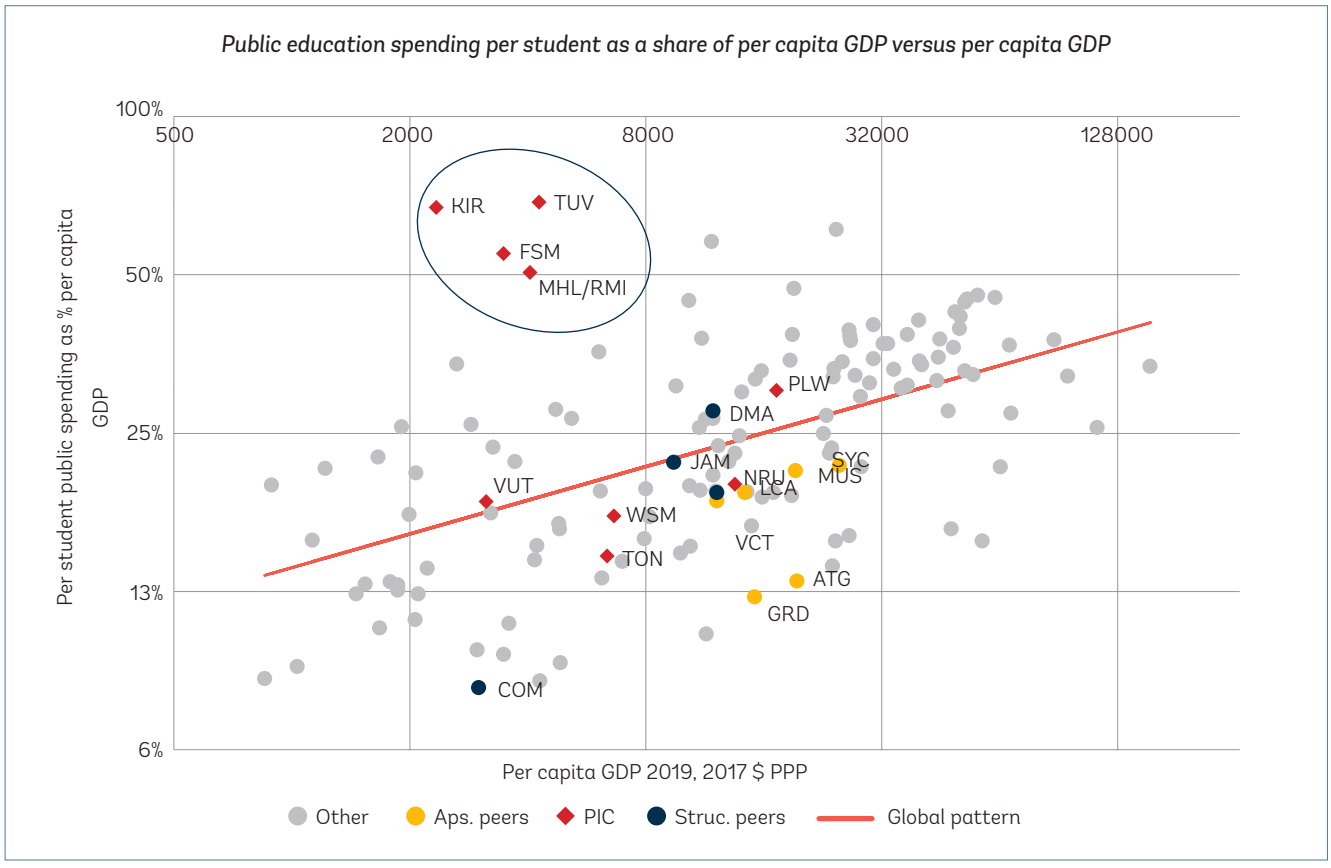
Source: Budget documentation, detailed spending data received from ministers of finance (and turned into BOOST data bases)[4] and UNESCO data.

4. Detailed spending data were obtained (and turned into a BOOST database) for Kiribati, Palau, Tuvalu, RMI, Tonga, and Samoa. National budget data was used for Vanuatu. UIS data was used for Nauru, FSM, and peers.

3.2.2 In five countries, public spending is on par with both aspirational and structural peers

In five PICs (Samoa, Tonga, Nauru, Vanuatu, and Palau), spending is similar or slightly above what is observed in peer countries. This is clear both when looking at total public spending as a share of GDP (Figure 3.2) and per student spending (or 'unit costs') relative to countries' per capita GDP (Figure 3.3). Specifically, in Samoa, Tonga, and Nauru, per student public spending is below what could be expected given their level of development (Figure 3.3). Similarly, per student public spending is only slightly above what could be expected in Palau and Vanuatu. In Tonga, Samoa, and Vanuatu, public revenues are substantially lower than in the rest of the PICs, which weighs down public education spending.

Figure 3.3: In terms of their level of spending, PICs fall into two distinct groups: high-spending countries and average spenders



Source: World Development Indicators (WDI), budget and education statistics for PIC. Data from 2019, the latest year for which enrolments are known.

3.2.3 The remaining four PICs are high-spending countries with public spending considerably above peers

Four countries benefiting from considerable public revenues can be clustered in a second group as high-spending countries (Figure 3.3). Kiribati, RMI (with the three-letter country code MHL), FSM, and Tuvalu clearly stand out, with a per student level of public spending (relative to their income level) which is above what most advanced countries can afford, but also much higher than their structural peers.[5] Per student spending ranges from 50.5 percent in RMI to 68.8 percent of per capita GDP in Tuvalu, more than twice as much as a typical country with a similar level of income.

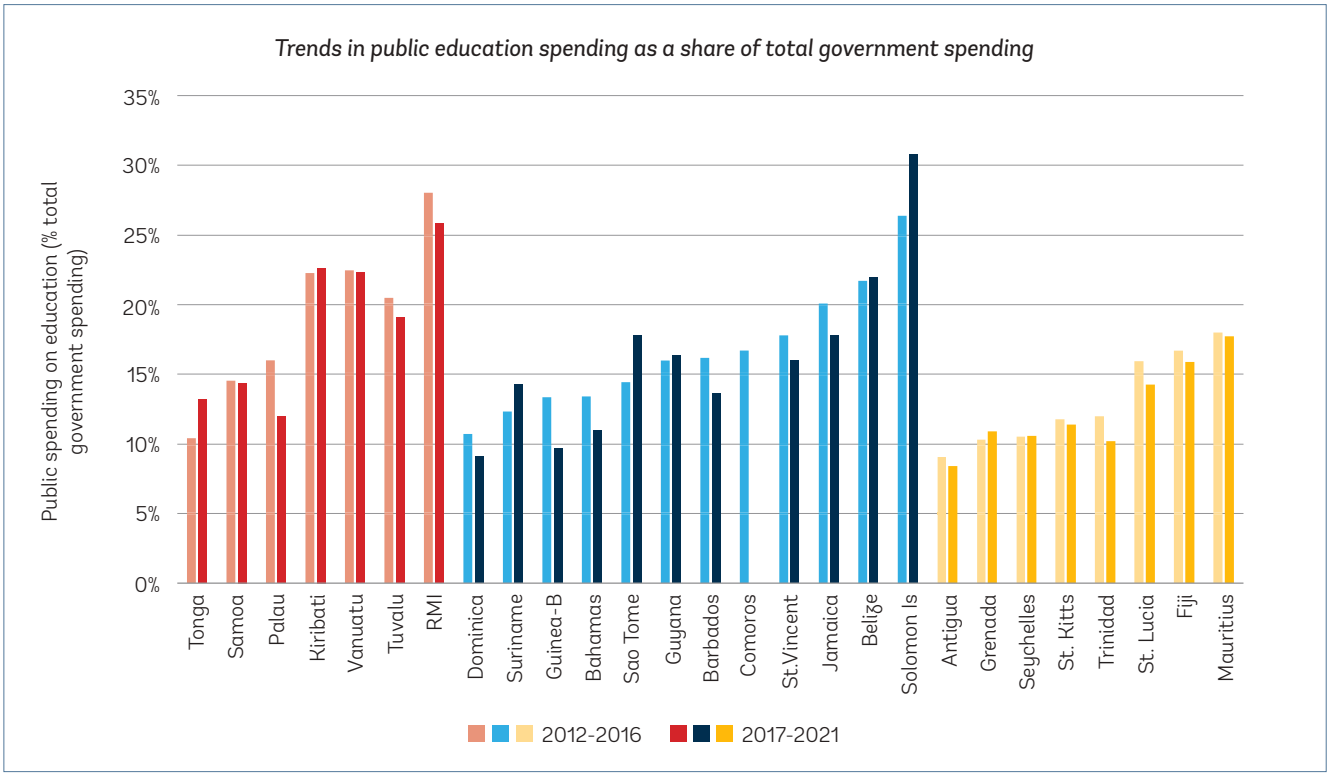
High-spending countries also all prioritize education spending relative to other sectoral priorities. Specifically, policymakers in Kiribati, RMI, and Tuvalu all allocate an unusually large share of overall public spending on education (Figure 3.4). The Compact agreements of FSM and RMI ensure that these governments spend very large shares of their budget on education, due to the earmarked nature of the US assistance.

3.2.4 The variation observed in public spending on education (measured as a share of GDP) reflects differences in priorities and in the overall size of the public sector

Countries differ in terms of how much of total government spending is allocated for education and by their size of overall government spending. Regarding the former, among the PIC-9, Tonga, Samoa, and Palau are the only ones where the share of public spending in total government expenditure is below the long-term average for middle income countries, which is about 15 percent (Figure 3.4). By contrast, among the high-spending countries and Vanuatu, a larger-than-usual share of total government spending is allocated to education. Education spending is similar to aspirational peers for Palau, Samoa, and Tonga, but much higher for the others. Public spending on education (measured as a share of GDP) also reflects large differences in the size of government; central government spending totals more than 60 percent in Marshall Islands and Kiribati but only 31 percent in Samoa.

5. For details about how per student costs were computed and the source of the data used, see A.2 Technical appendix and Table A.9.

Figure 3.4: The high-spending countries (and Vanuatu) allocate large shares of total spending on education compared to their peers and other PICs



Source: EdStats and national budget data. UNESCO data for peers.

3.3 How is overall education spending financed?

3.3.1 Donor resources are an important source of funding for the PIC-9

High-spending countries, as well as Palau and Tonga are benefiting from direct budget support to the education sector. Compact countries are funding most of their education systems from US federal grants. For instance, such grants represent about 85 percent of education spending in FSM and about half in RMI. By contrast, Kiribati has been benefiting from the long-term support of Australian aid (2011–2022), amounting to $A 91 million, representing about 20 percent of the national spending for education. On top of general budget support, Tuvalu has also received annual aid to the basic education sector from Australia amounting to $A 1.25 million a year, or 8 percent of its current education spending. Tonga has been benefiting from a steady flow of foreign support to its education sector, with aid representing 20–25 percent of planned spending, predominantly to finance capital spending. However, due to the low execution rate of capital spending (60 percent in 2019, for example), the share of foreign aid in total education spending has been lower.

Education recurrent spending is not significantly funded by foreign aid in Samoa and Vanuatu. Although Samoa is also receiving significant foreign aid from Australia, their education sector is not directly supported by Australia at the moment.[6] In the past, Samoa did benefit from the sizeable support of several donors including Australia, New-Zealand, and China to launch a school grant program, but it is now funded by the national budget. Vanuatu benefited from a $A 4 million education program in 2020 in the aftermath of the COVID-19 crisis, which represented about 4 percent of its total education expenditure. Australia and New-Zealand funded a support program between 2013 and 2018, followed by a second one from 2019, with interventions aiming to improve access and quality.

3.3.2 In most of the PIC-9, private spending is lower than in other middle-income countries (MICs)

Where such data are available, household education spending is significantly lower than in other MICs, except in Vanuatu. According to the latest available surveys, in most PICs, household spending on education is around 1 percent of GDP, with that amount accounting for 5.6–14.5 percent of all resources spent on education. Compared to other MICs, these are relatively low shares. Private spending averages 2.7 and 2.0 percent of GDP in lower- and upper-middle income countries, respectively (Table 3.2). Only in Vanuatu, a lower middle-income country, is private contribution on par with other lower-middle income countries' levels of spending.

Table 3.2: Household education spending is lower in the PIC-9 than in other middle-income countries

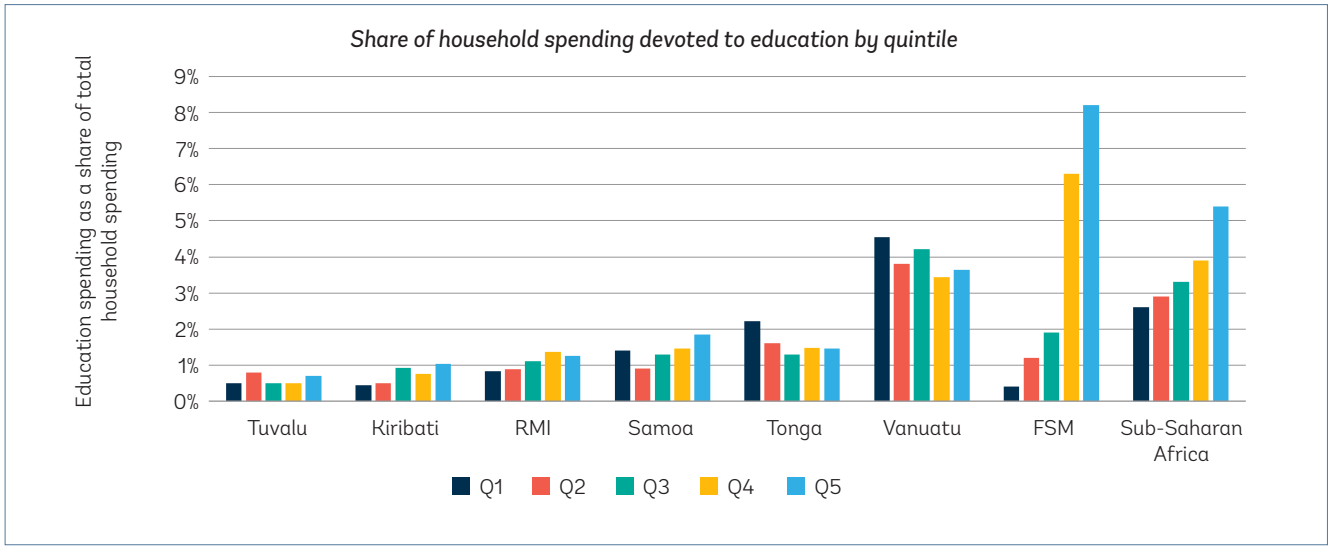
Country	WSM	TON	KIR	FSM	TUV	MHL	VUT	LMIC	UMIC
% GDP	0.8%	0.9%	0.9%	1.5%	1.1%	1.2%	2.5%	2.7%	2.0%
% Total edu. spending	14.5%	12.7%	5.6%	14.8%	7.6%	7.3%	26.6%	38.5%	30.1%

Source: Author's calculations from household surveys and World Development Indicators.

Looking across income quintiles, households' education spending is quite homogeneous across the population (Figure 3.5). In Tuvalu, Samoa, and Tonga, the share of household spending devoted to education is rather flat and even decreasing as people grow richer.[7] This suggests that even poor households may have to pay tuition fees to send their children to school. In Kiribati and FSM, two countries where public education is more heavily subsidized, education spending increases as a share of income in the top quintiles. FSM is the only country[8] where private education spending is much higher for the richest households, reaching 8 percent of total spending in the last quintile. Although detailed public budget data is not available for FSM, this suggests that pre-primary and tertiary education might not be well subsidized by the government, contrary to what can be seen in other PICs, limiting access to well-off families.

6. Neither through capital pending nor through recurrent spending.
7. This is not the case in RMI where education spending increases significantly with income.
8. Among countries for which recent household expenditure data is available.

Figure 3.5: Across all income groups, household spending on education makes up a relatively small portion of household's overall budget



Source: Author's calculations from latest household surveys. Data for Sub-Saharan Africa is the average across 15 countries in the 2000s (Borel et al., 2012).

3.4 How is public spending on education used?

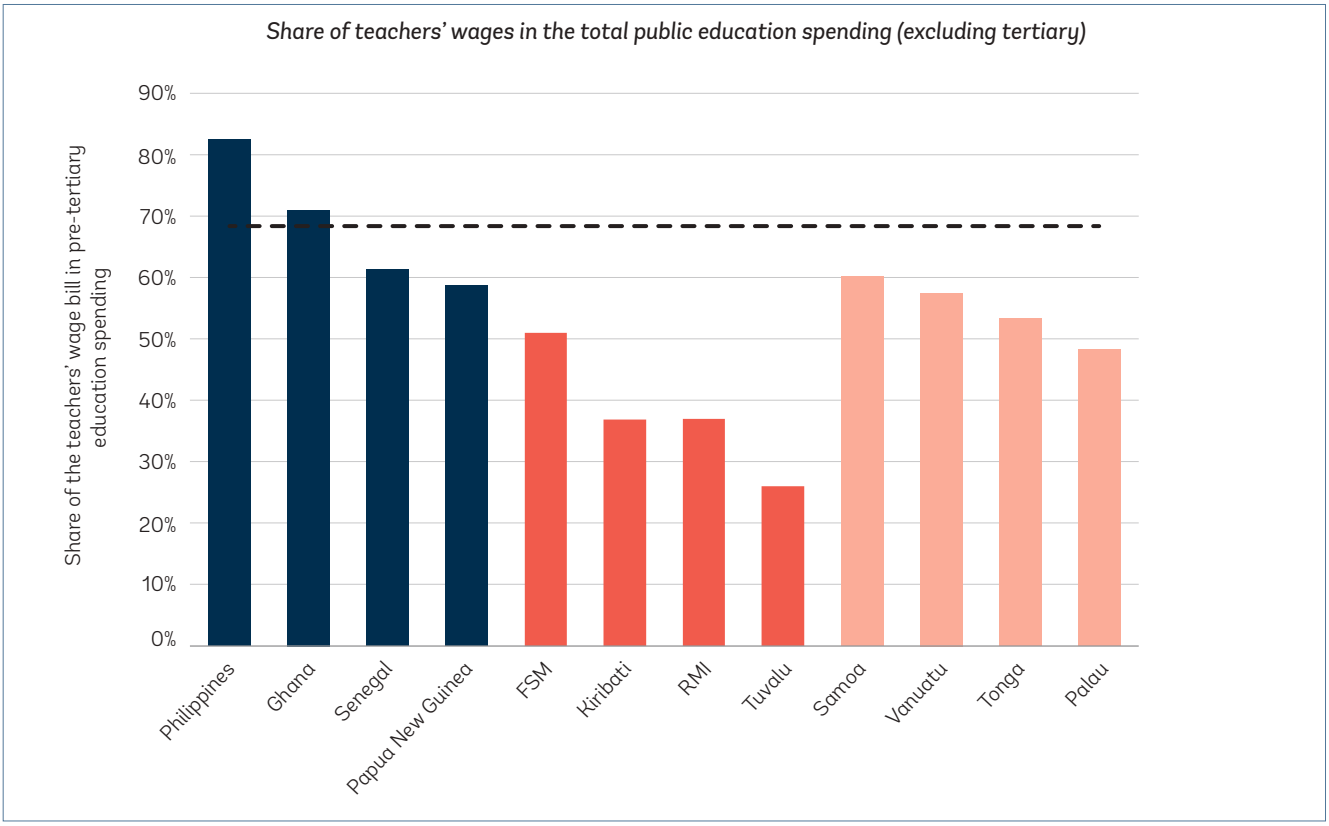
This section attempts to shed more light on how PICs are using their public resources. As will be discussed below, for several reasons, the composition of spending looks different in PICs but in one country, Tuvalu, the composition is peculiar (Box 3.1).

3.4.1 Unlike other countries, PICs spend an unusually small share on teachers' wages

The share of public education spending that goes towards public teachers' remunerations is significantly lower than in benchmark countries. In benchmark countries,[9] public teachers' wages represent around 68 percent of public education spending excluding tertiary and post-secondary spending.[10] Public teachers' remunerations are below 60 percent, on average, and are even lower in the four high-spending countries and Palau than in the other PICs (Figure 3.6). The teacher wage bill accounts for less than 20 percent of public spending on education in Tuvalu and around 40 percent in Kiribati.

9. Aspirational and structural peers are not used here due to data availability.
10. The average in OECD is about 62 percent.

Figure 3.6: PICs spend an unusually small share of overall spending on teacher salaries



Source: Authors' calculations from budget documentation and BOOST, 2020 or 2021 data.

This low level of spending is not because they offer teachers relatively low wages and/or have large average class sizes (the two primary factors that drive the size of a country's wage bill). First, comparing teachers' wages with average wages in the respective economies does not suggest that public teachers' compensations are insufficient. In fact, teachers' wages are in line with average wages in all countries, except in Samoa and Tonga, where they are about 70 percent above the average wage in the economy. Second, pupil–teacher ratios tend to be small in the region, except in Vanuatu and Samoa, where they remain below 30. In short, the reason countries spend little on teachers' wages is not because they underpay their teachers or have too few teachers relative to the number of students.[11]

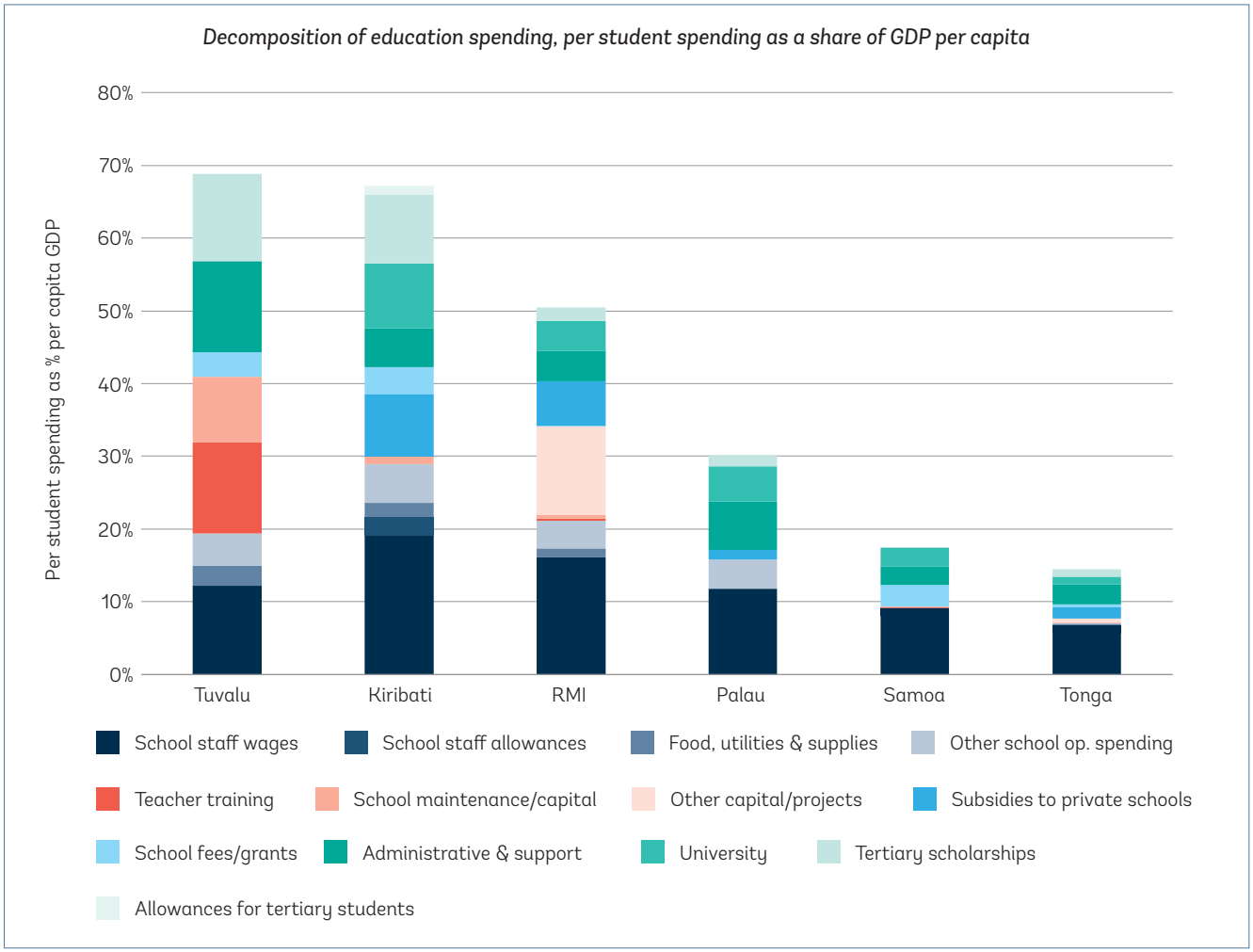
3.4.2 Instead, PICs use their education budget on larger-than-usual administrative costs, subsidies to both public and non-public institutions, and, in several countries, on allowances for tertiary education

Apart from teacher salaries, three broad categories drive the higher spending, as Figure 3.7 shows. First, funding all the usual functions of an education system (administration, assessment, training, statistics, etc.) on a small student population inflates costs beyond teaching services.

11. For details, see A.2 Technical appendix.

Second, many PICs are transferring sizeable amounts directly to schools, both to subsidize private education—especially at the ECE and upper secondary level—and to alleviate school fees. Although these funds are often used by private providers for teacher remunerations, in the budget and spending data the expenditures are recorded as transfers, not teacher salaries. Third, some governments are especially generous in overseas scholarships for students, and in Tonga and Kiribati even distribute allowances to tertiary students.

Figure 3.7: School operational spending represents a limited share of unit costs in the high-spending countries and Palau

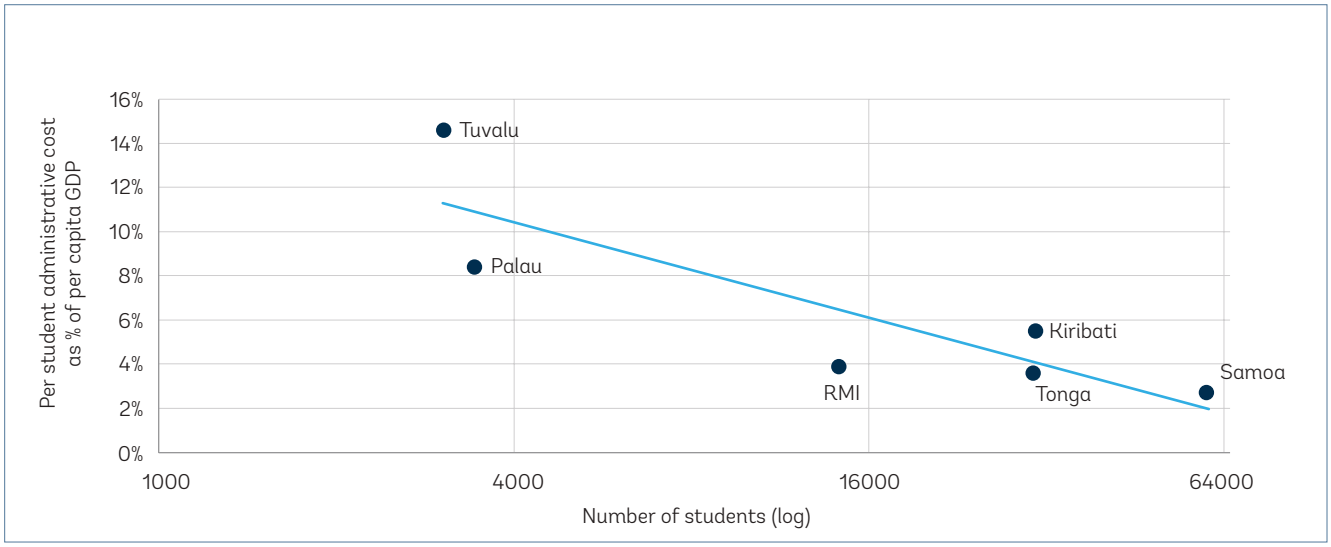


Note: Decomposition of education spending is not possible in Vanuatu, Nauru, and FSM because detailed spending data were not received. Unit costs displayed here are significantly higher than in Figure 3.2 and 3.3 for Tonga and Samoa, as spending increased sharply between 2019 and 2021.
Source: Authors' calculations from latest BOOST DATA (2021, except Samoa and Kiribati, 2020).

Administrative and support functions are especially costly—on a per student basis—in small countries

First, administrative and support functions are elevated in all the countries for which data are available. These costs range from 2.6 percent of per capita GDP in Samoa to 14.6 percent in Tuvalu. Administrative and support costs appear higher on a unit-cost basis, given the exceptionally small school systems in PICs. As Figure 3.8 shows, administrative and support costs per student decrease rapidly as the size of the education system grows. These costs are bound to be very large in tiny countries such as Tuvalu and Palau, but fall rapidly to represent less than 10 percent of total costs in Tonga and Samoa. These costs vary from one country to another but typically encompass the cost of running the Ministry of Education.

Figure 3.8: Administrative and support costs are especially large—on a per student basis—in the smallest PICs



Source: Authors' calculations from latest BOOST DATA (2021 except Kiribati and Samoa, 2020).

PICs spend an unusually large share of their budgets on transfers, both to public and non-private providers

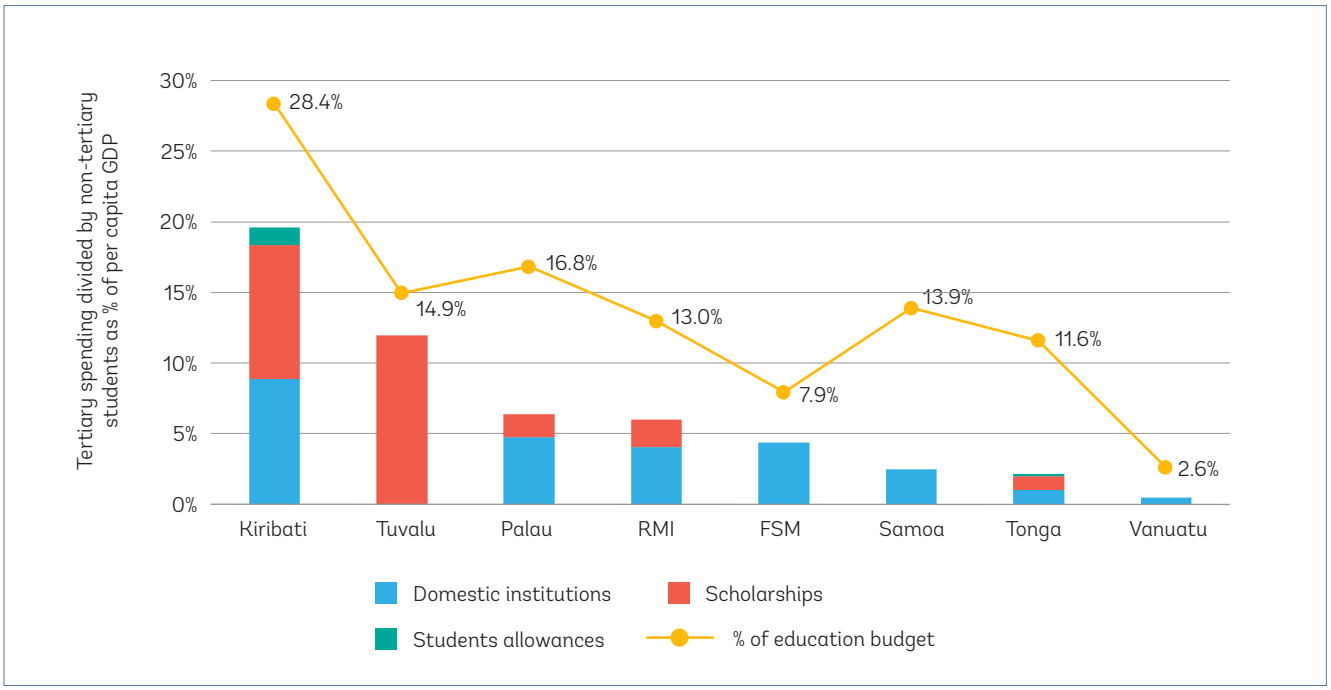
Second, PICs transfer higher-than-usual resources through school grants, both to public and non-public providers. Indeed, Samoa, Tonga, the RMI, Tuvalu, Kiribati, and Vanuatu transfer a significant share of their budget directly to schools, both public and private, through grants. School grants to public schools have been introduced in several countries as a tool to reduce tuition fees in public schools. It could be possible that some of these school grants may, in fact, be used to complement teachers' salaries (although it is officially not their purpose) but data on the use of these grants is not reported by any of the countries.

For some PICs, the higher-than-usual spending is also driven by high spending on post-secondary and tertiary education

Third, public resources spent on post-secondary and tertiary education are high in some countries, varying from only 3 percent in Vanuatu to nearly 30 percent of total education spending in Kiribati (Figure 3.9). Expressed as a share of per capita GDP, countries fall into two groups: in Kiribati, Tuvalu, FSM, RMI (all the high-spending countries) and Palau, public spending for tertiary education by non-tertiary student[12] amounts to around or no less than 5 percent of per capita GDP (Figure 3.9). In other countries, between 1 and 2 percent of per capita GDP is spent on post-secondary and tertiary levels for each student.

Large higher education spending raises both transparency and equity concerns since none of the PICs report the number of tertiary students enrolled in either domestic institutions or abroad. This lack of transparency prevents any study of the returns or the efficiency of post-secondary education. Nevertheless, youths from the wealthiest households are disproportionately more likely to benefit from scholarship and domestic enrollment, making this spending highly regressive.

Figure 3.9: Post-secondary and tertiary education spending is large among the high-spending countries



Source: Authors' calculations from budget documentation and BOOST, most recent data (2019/2020/2021).

12. For post-secondary and tertiary education, public spending has been divided by the total enrollment from ECE to upper secondary. It would be better to be able to divide the tertiary spending by the number of tertiary students, but such basic statistics are not available in the PICs. This may be due to the fact that many young people are studying abroad.

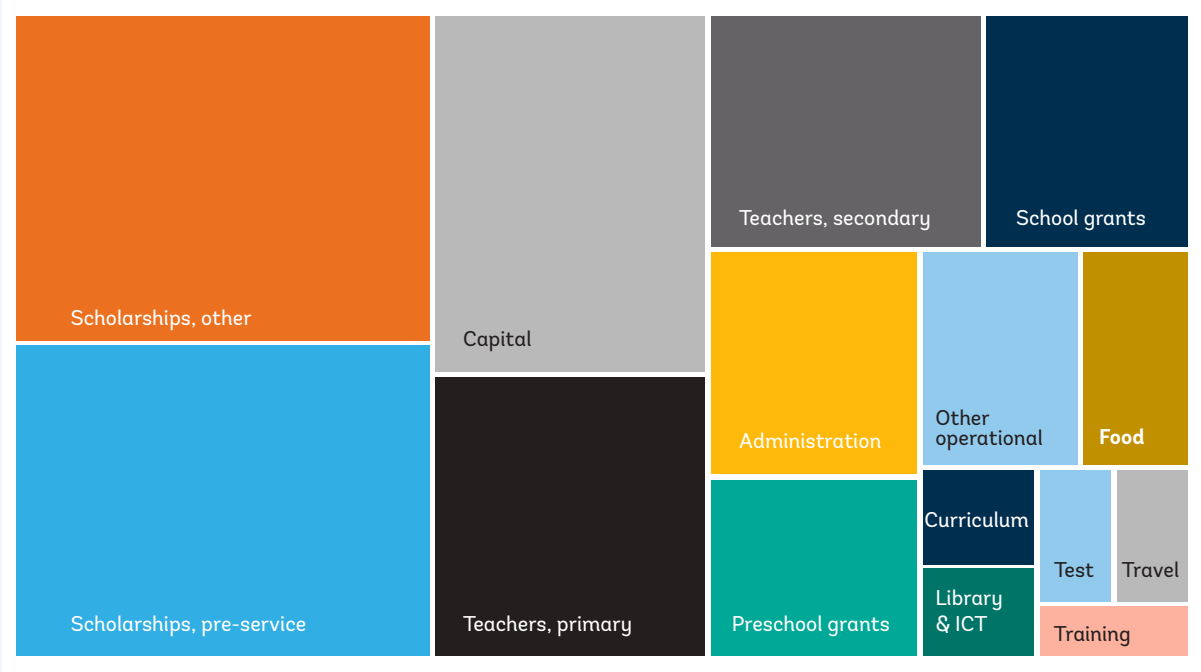
Box 3.1: The special case of Tuvalu with per student spending at 80 percent of per capita GDP

Tuvalu's unit costs are exceptionally high, driven by large transfers, capital spending and goods and services spending. In 2020, scholarships for pre-service training and Ministry staff represented 18 percent of the education public spending (Figure 3.10). Another 18 percent of the spending was allocated for overseas scholarships, including for in-service training. So, 36 percent of total education expenditure is transfers for tertiary studies abroad. Most of Early Childhood Education is supplied by private institutions but the government is subsidizing the salaries of ECE staff, with a budget line weighing 5 percent of the total budget. The total cost of the administration of the Ministry represented 5 percent of expenditure, a feature of the small size of the education system. Capital spending, as in the last decade, was substantial in 2020, reaching 13 percent of the budget. Capital expenditure has been substantial between 2015 and 2018, representing about 18 percent of education spending during the period but has receded since. Teachers' wages represented 10 percent of the expenditure for the primary level and an additional 6 percent for the secondary level. The relative weight of the teacher's wage bill remains low by international standards, even in a year where capital spending was low.

On top of funding domestic tertiary institutions and distributing scholarships for overseas training, the country also gives allowances to tertiary students, which amounts to 1.8 percent of the total education spending, matching the direct spending for the local institutions. These large resources allocated to tertiary education are likely to be quite regressive as students tend to come from the wealthiest households. However, overseas scholarships—although a big budget item—are almost fully funded by foreign aid. Therefore, its generous size inflates total education spending.

Tuvalu is the only country where teacher training expenditure is very large, as the country is sending teachers abroad, thanks to scholarships, for both pre-service and in-service training. In other countries such as Kiribati, the training of teachers constitutes the main activity of the local university. Although the country is too small to establish a fully-fledged teachers' college, opening a local training center for future and current teachers by flying-in trainers would be likely cheaper than flying out the whole teaching force.

Figure 3.10: Decomposition of executed education spending in 2020 in Tuvalu



Source: BOOST data for Tuvalu.

3.5 What are PICs achieving for the money spent?

3.5.1 Overall, the PIC-9 appear to be achieving less than aspirational peers, despite similarly high levels of spending

Does public education spending of the PIC-9 translate into desired education outcomes? This section looks at the PIC-9's performance compared to peers on two important education outcomes: (i) access: whether children are in school; and (ii) quality: whether students are acquiring foundational numeracy and literacy skills.

An important data gap makes drawing definite conclusions about PIC's spending versus outcomes difficult. International comparable data on how many students are acquiring minimum proficiency in literacy are not yet available for the PICs. What is available is the result of a regional assessment (Pacific Islands Literacy & Numeracy Assessment – PILNA) which shows

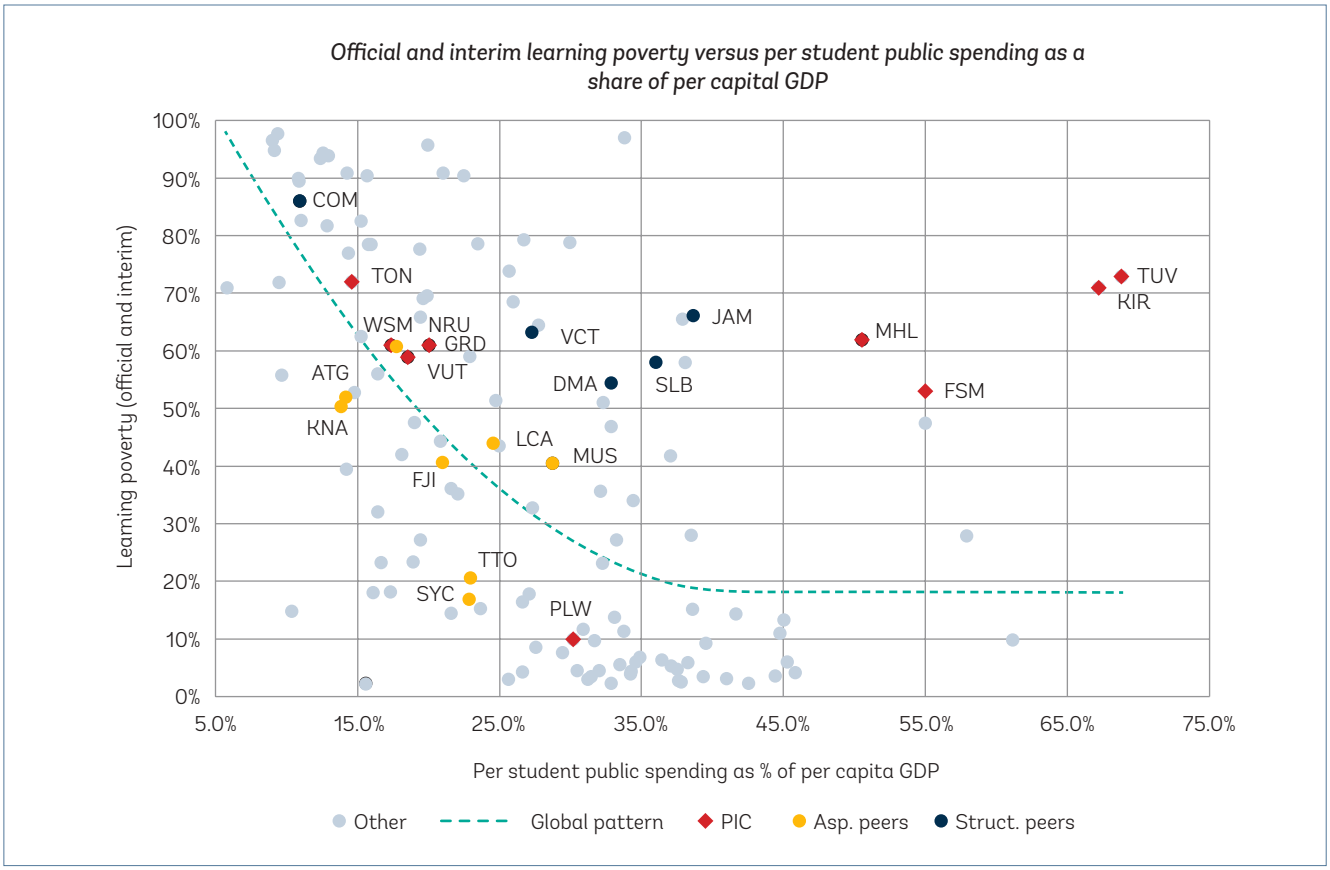
the proportion of Grade 4 and 6 students who are acquiring 'minimum proficiency' in literacy and numeracy according to the Pacific's definition. However, as is discussed in A.2 Technical appendix, World Bank analysis suggests that the Global Proficiency Framework's definition of 'minimum proficiency' may be more challenging than what is currently used in the Pacific.[13]

To fill this data gap, this chapter uses students' performance on PILNA 2018 but focuses on how many students are performing according to global reading standards (not the Pacific's standards). Specifically, it combines PILNA 2018 data with data on out-of-school children to calculate interim learning poverty estimates for the PICs. Using these data, the chapter is able to benchmark PICs to global peers.

Using these estimated interim learning poverty rates,[14] the rates are higher in the PIC-9 than in aspirational peer countries despite similar or much higher unit costs (Palau being the exception).[15] As displayed in Figure 3.11, interim learning poverty in the 'regular' PICs (Samoa, Tonga, Vanuatu, and Nauru) is higher than in aspirational peers for similar per student spending. However, learning poverty in these four PICs is similar to several structural peers, despite spending less than these peers, which indicates somewhat better performance by the education system. Here, the issue is not the spending level, which is clearly not excessive, but the lack of results. In fact, the regular PICs are closer to the regression line[16] than the structural peers, suggesting that education spending is even less efficient in the structural peers than in these four PICs.

13. The Global Proficiency Framework for Reading (also referred to as the GPF) defines the global MPLs that learners are expected to demonstrate at the end of each grade level, from Grades 1 to 9. The GPF was developed by reading educators, curriculum experts, and psychometricians with extensive experience developing and implementing reading programs in a wide range of countries and contexts. For more details, please see https://www.edu-links.org/sites/default/files/media/file/GPF-Reading-Final.pdf.
14. Learning poverty has not been officially measured in the PICs because of lack of access to data, but estimates based on correlations between learning poverty and international assessment such as PILNA and Multiple Indicator Cluster Surveys (MICS) have been computed for this PER (see Footnote 3 and A2. Technical appendix).
15. Learning poverty in the peer countries for which official data was not available have been estimated by the team (see A.2 Technical appendix on estimating learning poverty).
16. For a given spending, the gap in learning poverty between what should be expected (which is on the regression line) and what is achieved is indeed higher in Solomon Islands, Dominica, Saint Vincent, or Jamaica than in Samoa, Nauru, Vanuatu, and even Tonga.

Figure 3.11: Interim learning poverty is high in many of the PIC-9 despite large per student public spending



Source: World Bank team calculations from Harmonized Test Scores, PILNA, Multiple Indicator Cluster Surveys (MICS), learning poverty, UNESCO, and national data (see A.2 Technical appendix).

Among the high-spending countries, interim learning poverty is high while unit costs are global outliers. Tuvalu, FSM, RMI, and Kiribati appear as outliers, with elevated levels of public spending and high learning poverty, although the roots of this disconnect may vary from one country to another. In this group, both the level of spending and the outcomes are problematic.

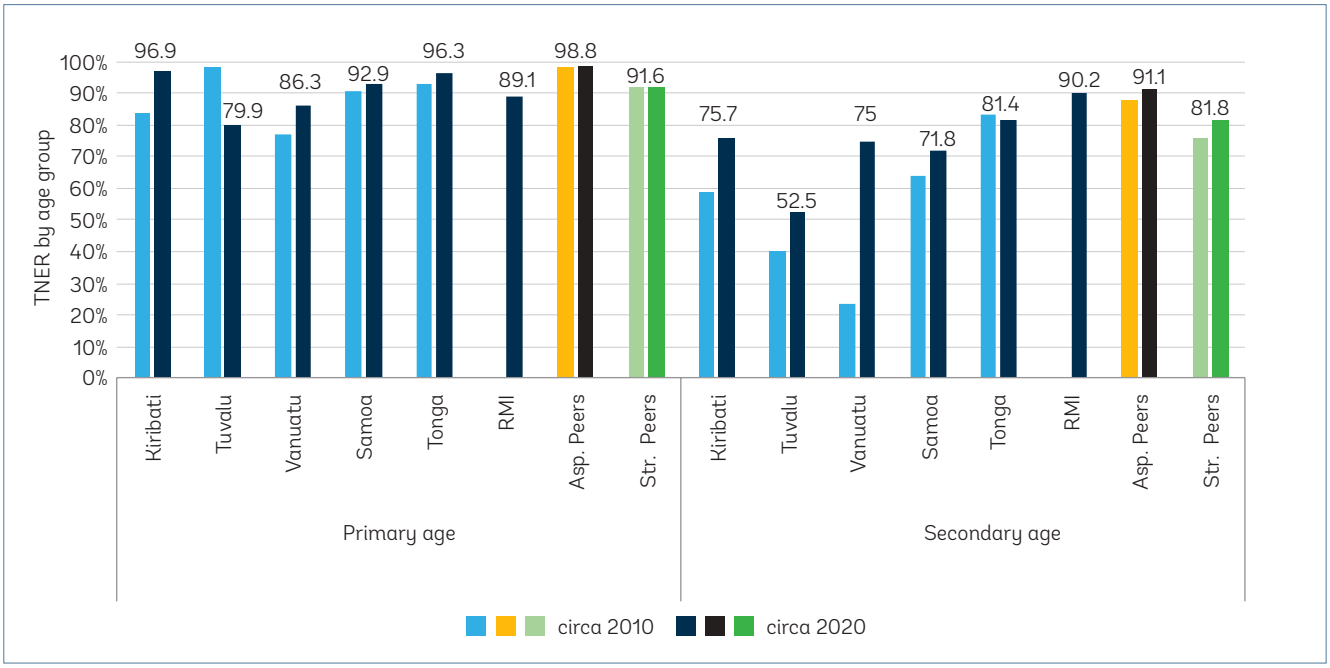
3.5.2 The picture is mixed regarding access, with primary enrollment rates slightly above structural peers and secondary enrollment rates below

As a result of large increases in primary enrollment over the past decade, primary enrollment in most PICs has caught up or exceeded rates observed in structural peers (Figure 3.12). The Total Net Enrolment Rate[17] (TNER) for primary age children was close to 90 percent in RMI, above 96 percent in Kiribati and Tonga, and at 93 percent in Samoa—at or above rates observed in structural peers (but below the rates observed in aspirational peers) before the pandemic.[18] Among the countries for which comparable data about enrollment can be computed, Tuvalu is the only one where the primary TNER has been declining. Like in PIC-9's peers, primary education is not yet universal in any of the PICs, even Palau, pushing up learning poverty.

17. The TNER measures the fraction of children in the theoretical age range for a given level of school, who are in school at any level.
18. Enrolment has not been measured since 2019 for most of the PIC-9. It may have declined since.

While secondary enrollment rates have also increased, in most PICs—and especially for two of the high-spending countries—they remain far below rates observed in peer countries. Most impressively, in Vanuatu, secondary enrollment jumped from less than 25 percent to around 75 percent over the past decade. However, secondary enrolment rates are lagging behind both types of peers in most countries, except Tonga and RMI. Total net enrollment rates for secondary age children are particularly low for high-spending Kiribati and Tuvalu—and, until the recent surge, Vanuatu.

Figure 3.12: Enrolment rates have progressed during the last decade at both the primary and secondary levels

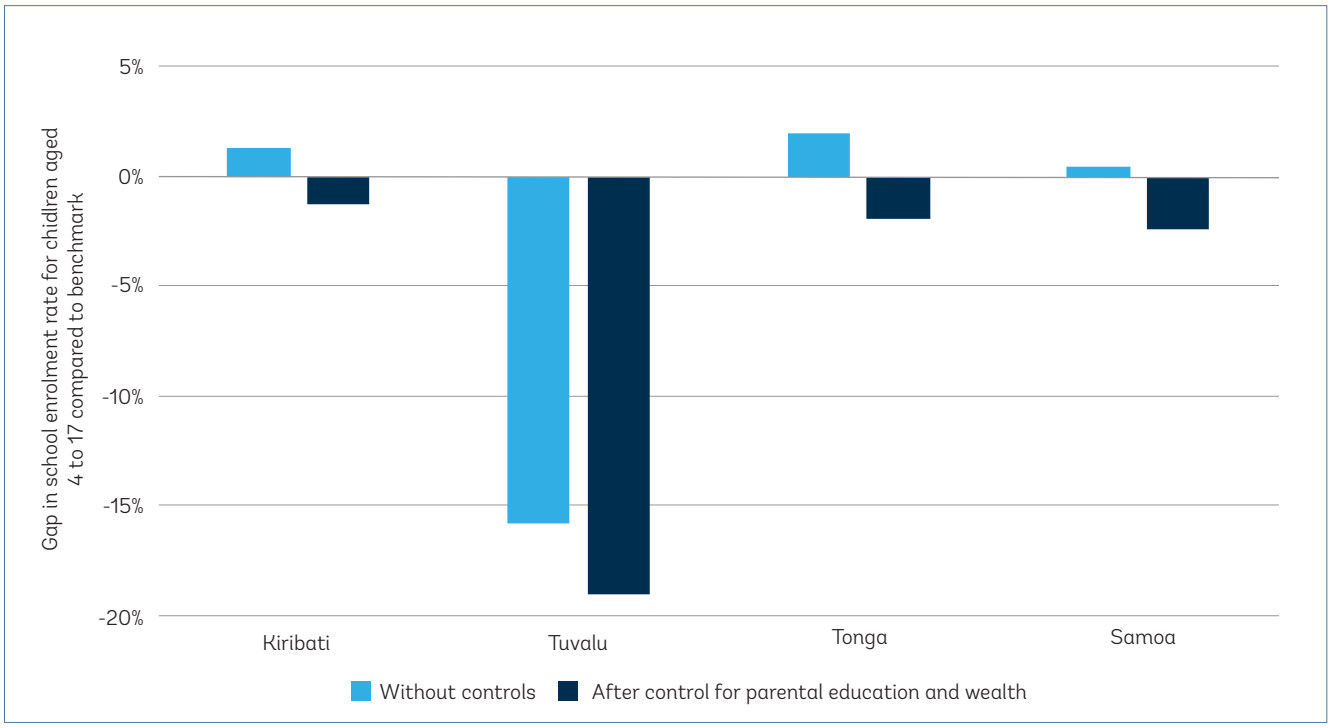


Source: Total net enrolment rates. Author's computations from DHS surveys, MICS surveys, and the Vanuatu 2019 Household Survey. Total net enrolment for peers is from EdStats.

More in-depth analysis confirms that school enrolment is structurally lower in the PIC-9 compared to peer countries. Using the latest microdata collected from the Multiple Indicator Cluster Surveys (MICS), one can model school enrolment controlling for socioeconomic determinants such as income and parental education.[19] Such analysis shows that TNERs for children aged 4 to 17 are, on average, 1–3 percentage points lower in Kiribati, Tonga, and Samoa than in comparable countries once socioeconomic factors are taken into account (Figure 3.13). This suggests that PICs are 'underperforming' in terms of enrolling children (relative to parents' socio-economic conditions). It suggests that other factors, beyond poverty, are affecting enrollment—such as school availability close to rural settlements, which could be an issue at the pre-primary and secondary levels. But poor performance and relevance of the curriculum for the labor market could also hinder teenagers' participation, especially for boys. School enrolment is especially low in Tuvalu at the secondary level.

19. For more information about MICS: https://mics.unicef.org/

Figure 3.13: Enrolment rates are lower than expected when compared to peers



Note: A negative value means that enrollment is lower in the country shown compared to the average of the benchmark countries. In Tuvalu, after controlling for parental education and wealth, the enrolment rate of children 4 to 17 is 18 percentage points lower than in the four benchmark countries.

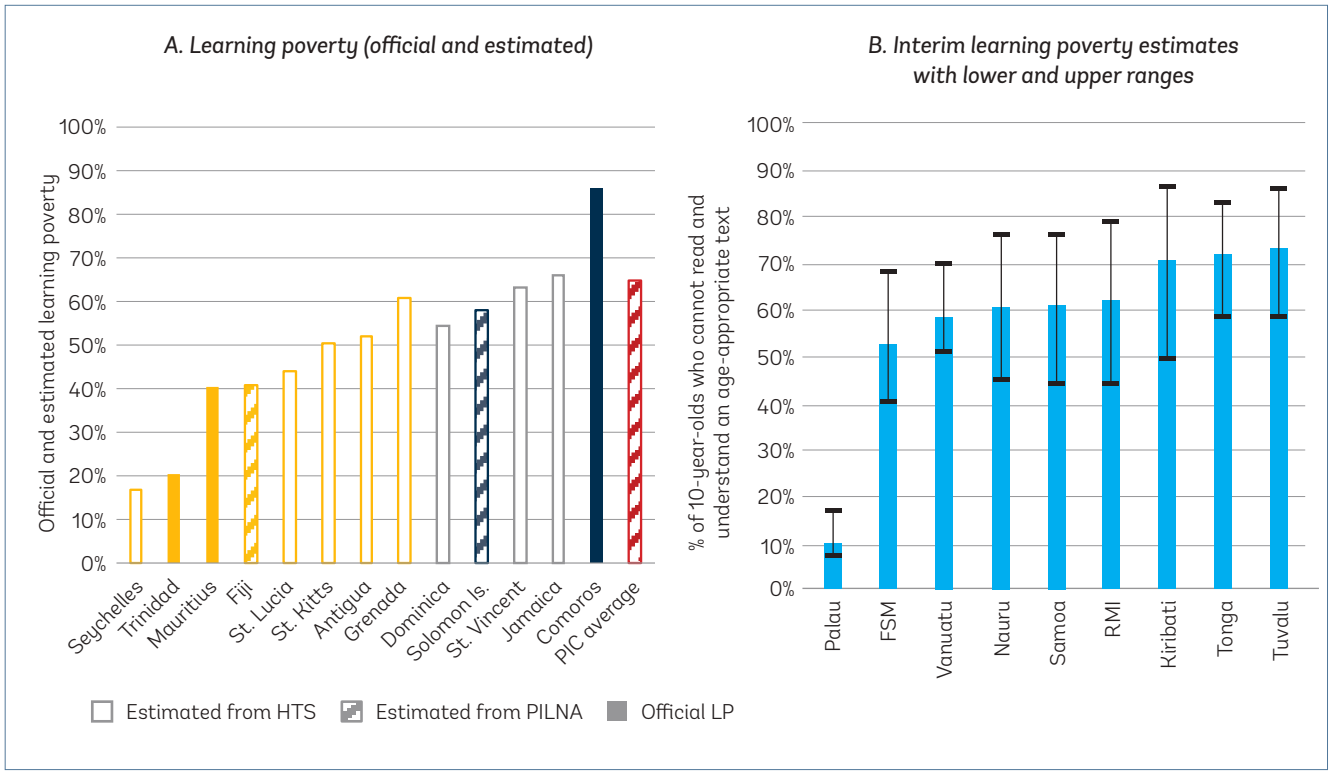
Source: Authors' calculations using MICS microdata (2019). Benchmark countries are Sao Tome and Principe, Suriname, Guyana, and Guinea-Bissau. The underlying model is a probit model, controlling for gender, age, age squared, wealth score, and parental education levels.

3.5.3 On quality, the picture is clearer, with fewer children acquiring literacy skills in PICs relative to children in peer countries—and the same may be true for math skills

The PIC-9 are slightly below structural peers and lag their aspirational peers in terms of 10-year-olds' reading skills, but results look better than in some East Asian countries. The above-mentioned interim learning poverty levels are around or above 50 percent for all PICs, except Palau (Figure 3.14). This is higher than in peer countries for which there is official data, such as Mauritius, where learning poverty reaches 41 percent, and Trinidad and Tobago where it is about 21 percent. Learning poverty is quite high in Comoros (86 percent) as well. Although official poverty numbers are not available for the other peers, one can project values from their Harmonized Test Scores (HTS)[20] or from PILNA.[21] At the same time, interim learning poverty in PICs is lower than in several nearby East Asian countries where learning poverty exceeds 90 percent in countries like Lao PDR and the Philippines (Figure 3.15).

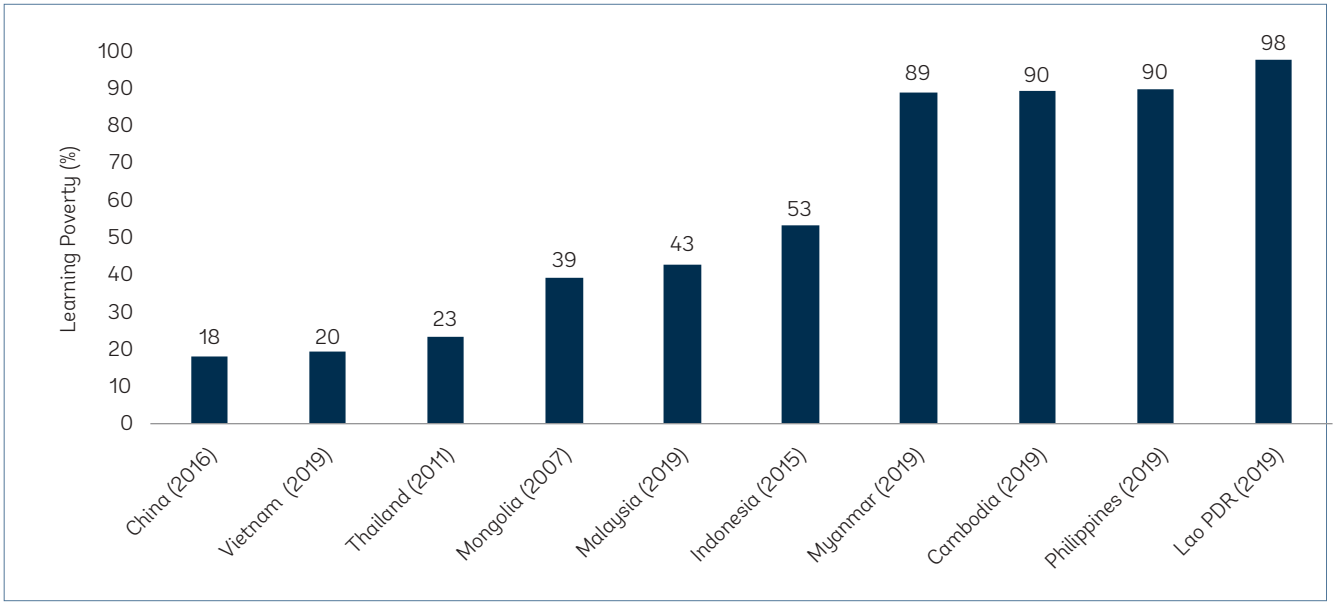
20. Although the projection from HTS is not very precise for a given country, the average over a group of countries is reliable. This clearly shows that learning poverty is much lower in the aspirational peers than in the PIC-9.
21. Learning Poverty numbers for Fiji and Solomon Islands are directly comparable to estimates for the PICs, as both the data source and the methodology are similar.

Figure 3.14: Learning poverty is higher in the PICs than in peer countries



Source: World Bank team estimates, see annex for details.

Figure 3.15: Learning poverty is higher in several East Asian countries

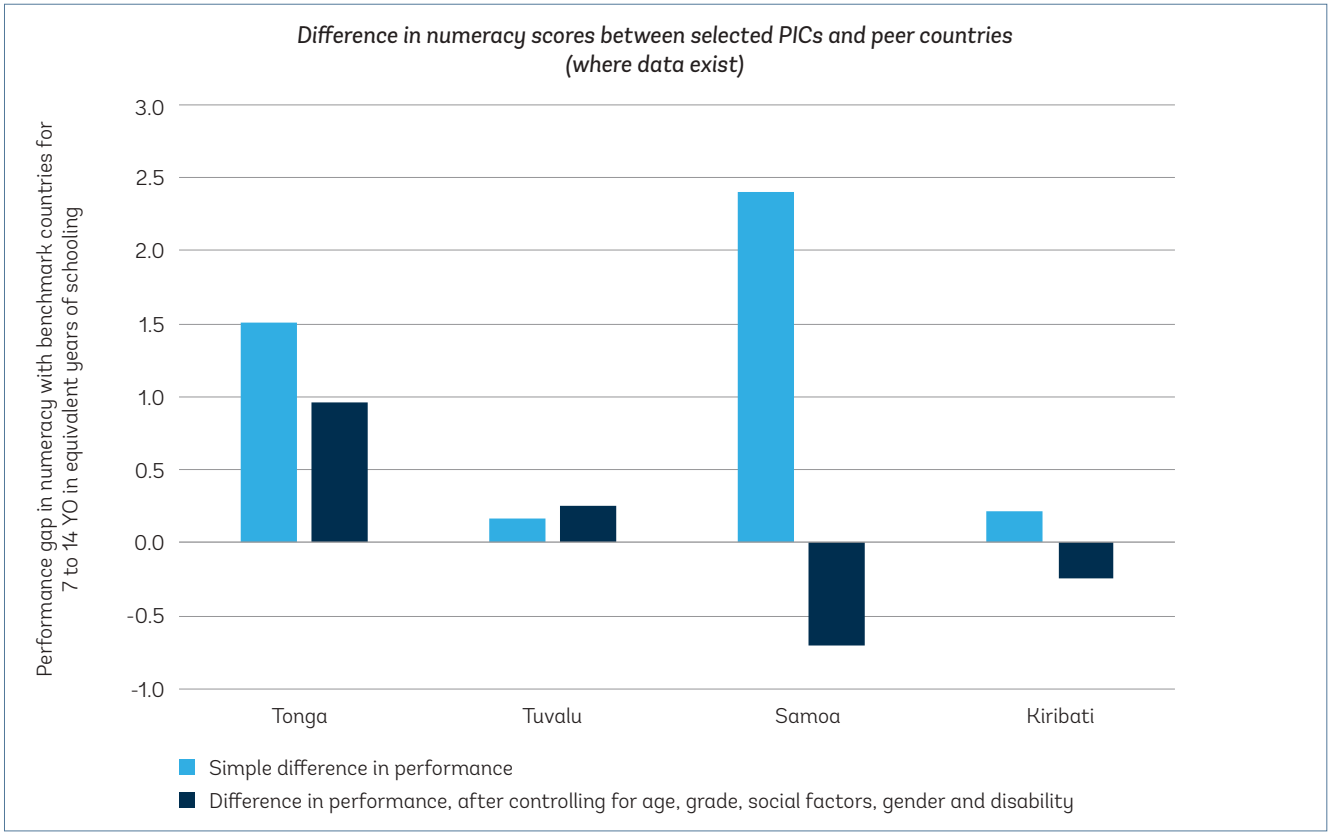


Source: World Bank Learning Poverty Database (percentage of 10-year-olds in school with learning poverty, i.e., who cannot read and understand a short age-appropriate text).

Children in PICs may be lagging in numeracy skills as well, except in Tonga. Although literacy skills in the Pacific are very low, at first sight, children surveyed in basic numeracy appear several years ahead in Tonga and Samoa from children in a number of peer countries (where data are available to allow for such comparisons).[22] However, once observable factors (such as the mother's education, level of wealth, and/or number of books at home) are accounted for, the performance of children in PICs appears less impressive. In fact, in both Kiribati and Samoa, the gap turns negative. However, Tonga stands out as an exception, with children performing far ahead of peers in other countries (Figure 3.16). This does not mean, however, that education quality is high in Tonga, as many unobserved factors such as parental skills or stimulation have a large impact on performance.

Schools may be less efficient in conveying skills to students in PICs. Refined econometric analysis from MICS indicates that on average in Tonga, Tuvalu, Samoa, and Kiribati, children tend to acquire about 10 percent less skills every year than similar children in the benchmarking group.[23] Such a gap is significant. Regardless of the actual level of skills reached (which is affected by multiple factors outside of school, including the skills already acquired prior to primary school), this suggests that education quality is lower in PICs as children progress more slowly.

Figure 3.16: Children in PICs may be lagging in numeracy skills as well, except in Tonga



Source: Authors' calculations using MICS microdata (2019).

22. Benchmark countries are Sao Tome and Principe, Suriname, Guyana, and Guinea-Bissau.
23. See Model 6 in Table A.8 in A.2 Technical appendix, where going up one additional grade brings 10 percent less skills in PICs as a group than in the benchmark group.

Because of the large number of exams administered, more evidence on the failings of the system is available from Samoa. The Samoan system is quite intensive in formal examinations. Children are going through tests at the end of each even grade. The tests that take place at Grades 2, 4 and 6 are diagnosis examinations, linked to curriculum. At Grade 2, only half of students are mastering the competencies required. At Grade 4, the share of proficient students drops to less than one-third in numeracy and English literacy and below 10 percent in Samoan literacy. Proficiency rates in English and math are even lower at Grade 6. At the end of primary, less than 10 percent of boys and 15 percent of girls sitting the test are passing in math, while only 22 percent of boys and 55 percent of girls are reaching the target level in English or Samoan, or sciences.

3.5.4 COVID-related school closures worsened education outcomes

Students' academic performance declined during the pandemic, according to newly released data on learning, based on the results on the 2021 Pacific Islands Literacy & Numeracy Assessment (PILNA) (EQAP, 2022).[24] Average performance in numeracy, reading, and writing had been rising or stable among Grade 4 and Grade 6 students since the PILNA's inception in 2012. Between 2018 and 2021, however, numeracy and reading scores declined. Average numeracy scores declined more than reading scores for both Grade 4 and Grade 6 students. The decline in Grade 4 numeracy scores was particularly striking; having increased from 486 in 2012 to 504 in 2018, average scores declined to 479 in 2021 (i.e., wiping out entirely the gain over the previous 6 years). COVID-19 outbreaks did result in schooling disruptions in several PICs, likely explaining the observed declines in numeracy and reading between 2018 and 2021. As the region is often hit by natural disasters, which also disrupt school, it is even more critical to take mitigating actions.

School closures were significant and weighed down students' performance. Although COVID-19 did not reach the PIC-9 until 2022, there were still extensive school closures. The RMI (5 days) and Nauru (no closures) are the only countries where school closures were negligible. Closures were limited in Kiribati as well (21 days) and to a lesser extent in Samoa (29 days). In the rest of the PIC-9, they were about or longer than 40 days, reaching 80 days in FSM and Palau. School closures are likely to have a noticeable impact on quality when schools were closed for 60 days or more.[25] This order of magnitude is consistent with the drop noticed in PILNA results from 2018 to 2021 and the actual extent of school closures in the PIC-9. Although attendance data during COVID-19 are not yet available, there is some evidence that school closures were compounded by a drop in attendance and an increase in school dropouts, reducing schooling beyond school closures.

24. PILNA assesses numeracy, reading, and writing capabilities of Grade 4 and Grade 6 students in 15 Pacific Island countries: Cook Islands, FSM, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, RMI, Samoa, Solomon Islands, Tuvalu, Tokelau, Tonga, and Vanuatu. At the time of writing, only Pacific-wide PILNA results were available; no country-specific results had been released. For more information, see https://pilna.eqap.spc.int/

25. Standardized assessment can indeed capture a drop in average scores of about 10 percent of a standard deviation, which represents about 30 percent of a school year, meaning 12 weeks or 60 days.

Attendance also dropped. High Frequency Phone Surveys in Tonga and Vanuatu confirm that 17 percent and 29 percent of children stopped going to school for some period during the previous 12 months and a quarter of them (4 percent and 7 percent of children) did not return to school at all (i.e., dropped out). In Tonga, nearly 90 percent of school dropouts indicated COVID-19 related reasons. Eighty-one percent of children who dropped out were from rural households. In Vanuatu, 30 percent of households also reported reducing the number of children attending school as a coping strategy since the national lockdown in March 2022. These findings are also consistent with High Frequency Phone Surveys results in other Pacific countries, such as Papua New Guinea and Solomon Islands.

3.5.5 In summary, education outcomes are not yet at desired levels

Both in terms of access and quality, education outcomes in PICs are not yet at desired levels, and below what is observed in peer countries (Table 3.3, Figure 3.17). With Palau being the exception, interim learning poverty rates—combining a measure of both quality and access—are high in all countries, suggesting that less than half of children (age 10) are reading at global benchmarks.

Table 3.3: Summary of education inputs and outcomes

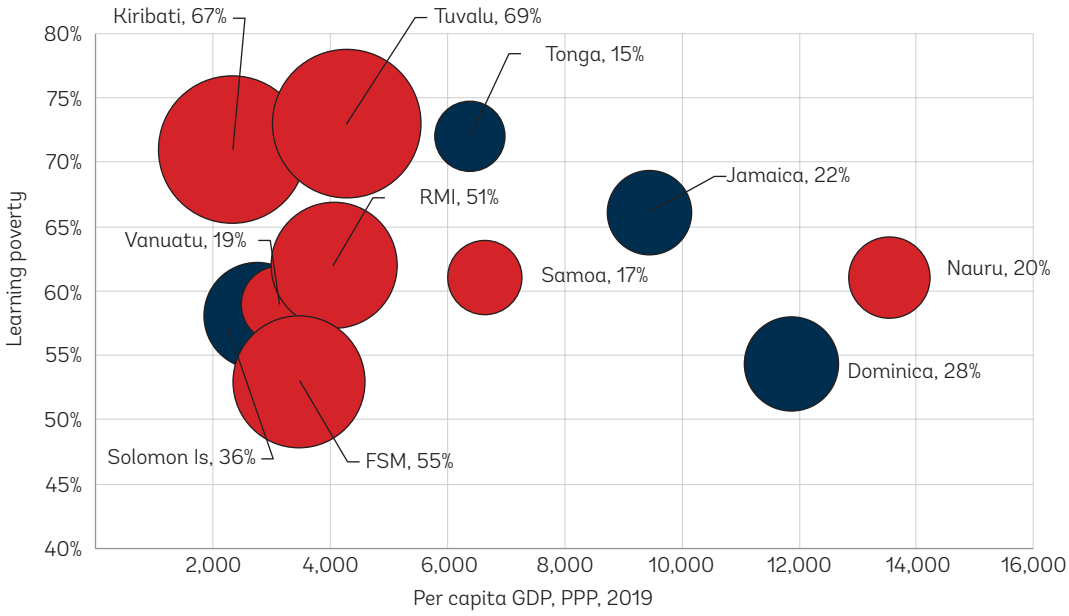
Countries		GDP per capita	Spending (% GDP), avg 2017-21	Interim learning poverty	Math (performance gap in years of schooling)	Primary TNER	Secondary TNER	Struct. enroll. gap
High-spending countries	FSM	3,369	9.7%	53%		89.7		
	RMI	3,932	16.6%	61%		89.1	90.2	
	KIR	2,259	16.9%	71%	-0.3	96.9	75.7	-1.3
	TUV	4,411	20.7%	73%	0.2	79.9	52.5	-19.0
Regular PICs	NRU	13,594	5.9%	59%		99.3		
	PLW	15,473	6.2%	10%		95.3		
	WSM	6,417	5.0%	59%	-0.7	92.9	71.8	-2.4
	TON	6,347	4.8%	72%	1.0	96.3	81.4	-2.0
	VUT	2,854	6.3%	58%		86.3	75.0	

Source: BOOST data or national budget document, MICS surveys, WDI, and learning poverty estimates. The color coding indicates to which extent the inputs and outcomes are **very positive**, **somewhat positive**, **could be improved**, **concerning**, or **very concerning**.

The single peer at similar level of per capita GDP, Solomon Islands, is slightly more efficient than the high-spending PICs but not the regular PICs. Interim learning poverty is overall lower in Solomon Islands than in Vanuatu, Kiribati, Tuvalu, Tonga, Samoa, and RMI, while GDP per capita is either similar or lower and unit costs are lower (Figure 3.17). But the level of unit costs in Solomon Islands is almost double the regular PICs, similar to Kiribati, and lower than FSM, Tuvalu, and RMI.

There is no example of a similar country achieving better outcomes than the regular PICs while spending significantly less. Learning poverty is lower in Dominica than in Nauru despite having lower per capita GDP, but public spending per capita on education is almost 50 percent higher. Learning poverty is also slightly lower in Jamaica than in Tonga, but Jamaica's level of development and per student spending is also 50 percent higher. Interim learning poverty is also slightly higher in Vanuatu than in Solomon Islands but per student spending is also 50 percent higher.

Figure 3.17: There is no example of a structural peer outperforming the PIC-9 without spending significantly more on education



Source: Authors' calculations. Bullet sizes are proportional to public spending per student as a share of per capita GDP (unit costs).

Most of the PIC-9 should be able to do more with their current level of resources through more efficient allocation, especially in the high-spending countries. To identify areas where such efficiencies could be generated in the next section, we explore why PICs are not achieving more for the resources spent.

3.6 Why are the PIC-9 not yet achieving desired education outcomes for the resources spent?

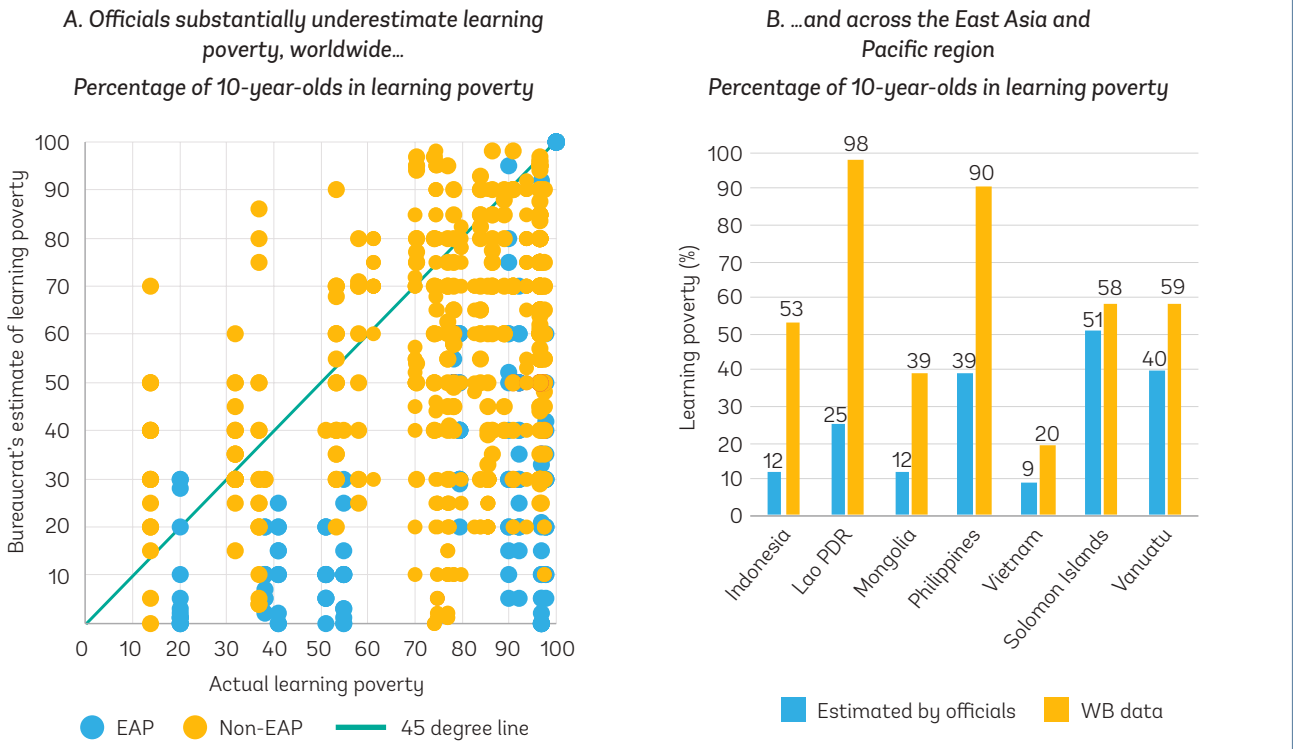
The PIC-9 include high-spending countries that spend a lot more than their peers, yet achieve worse outcomes, as well as a set of countries that spend about the same as their aspirational peers but achieve worse outcomes. What explains this underperformance? Are the countries 'inefficient', or are there factors beyond the control of policymakers that explain the higher costs and/or the poorer performance?

3.6.1 Policymakers may not be paying enough attention to the problem of children not learning to read (World Bank, forthcoming)

Surveys of senior government officials suggest they are not aware of—or choose not to see—the magnitude of their countries' learning deficits. A recent survey of over 900 senior government officials working on education in 35 low- and middle-income countries, including two Pacific Island countries, found that most policymakers underestimate the magnitude of their

countries' learning deficits (Crawfurd et al., 2021). The survey, implemented by the Center for Global Development (CGD), asked officials to estimate the share of 10-year-old students in their countries who can read. These estimates were then compared to the actual share of students who can read, based on World Bank data on learning poverty. Officials systematically, and in some cases substantially, overestimated student learning outcomes (Figure 3.18a). Overall, 80 percent of officials surveyed provided estimates that exceeded actual literacy rates. A follow-up survey, focused specifically on the region, carried out jointly by CGD and the World Bank found similar gaps between policymakers' perceptions and measured literacy levels. In six of the seven East Asian and Pacific countries for which surveys were carried out—Indonesia, Lao PDR, Mongolia, the Philippines, Solomon Islands, and Vanuatu—policymakers' estimates of 10-year-olds' literacy levels exceeded the evidence by significant margins (Figure 3.18b).

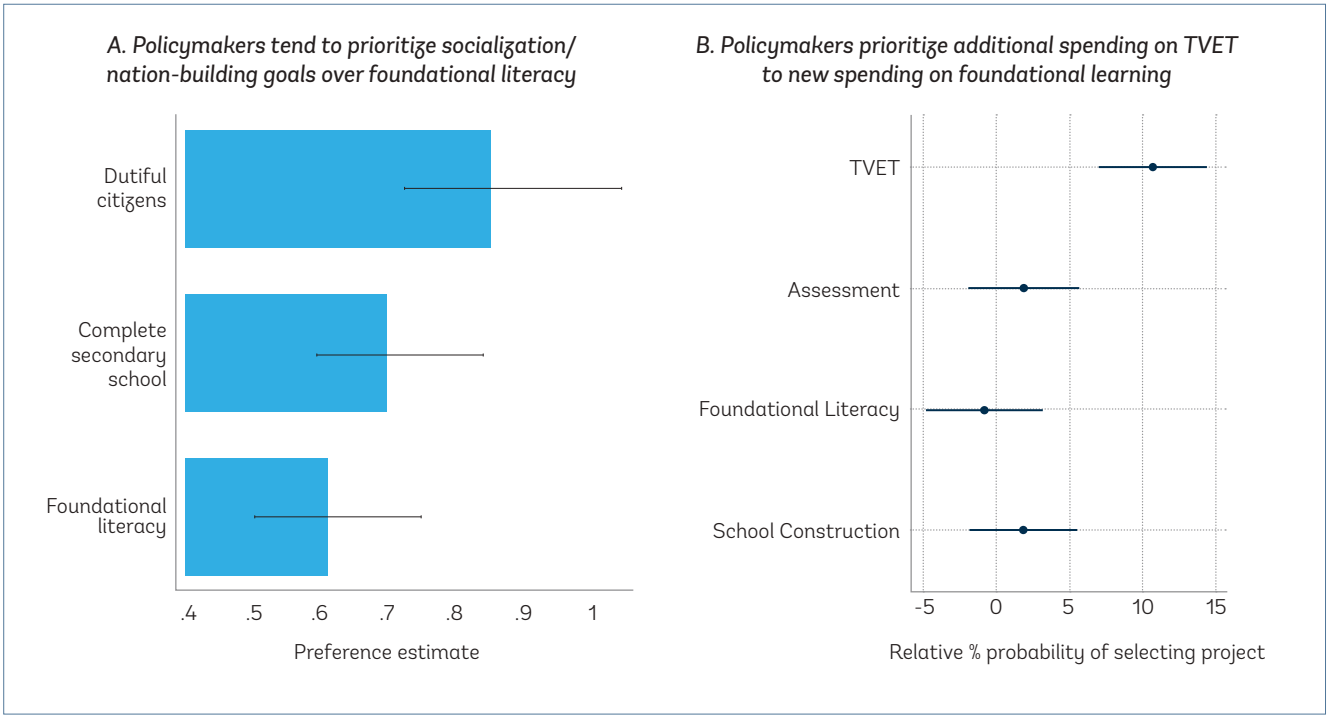
Figure 3.18: Policymakers do not appear to recognize the magnitude of their countries' learning deficits



Source: Left panel, Crawfurd et al., 2021; right panel, World Bank staff calculations, based on Afkar et al., 2023.

Policymakers may also have other education sector priorities. For example, senior officials tend to prioritize socialization and nation-building goals for education over building foundational literacy (Crawfurd et al., 2021) (Figure 3.19a). In addition, when faced with a hypothetical choice between different types of education projects, policymakers expressed a preference for investing in technical and vocational education and training (TVET) projects over projects to support increased foundational literacy (Figure 3.19b). The lack of a sense of 'crisis' with respect to basic learning outcomes, combined with a focus on other priorities, have likely served to dilute policymakers' focus on strengthening basic learning outcomes.

Figure 3.19: Policymakers do not appear to prioritize foundational learning

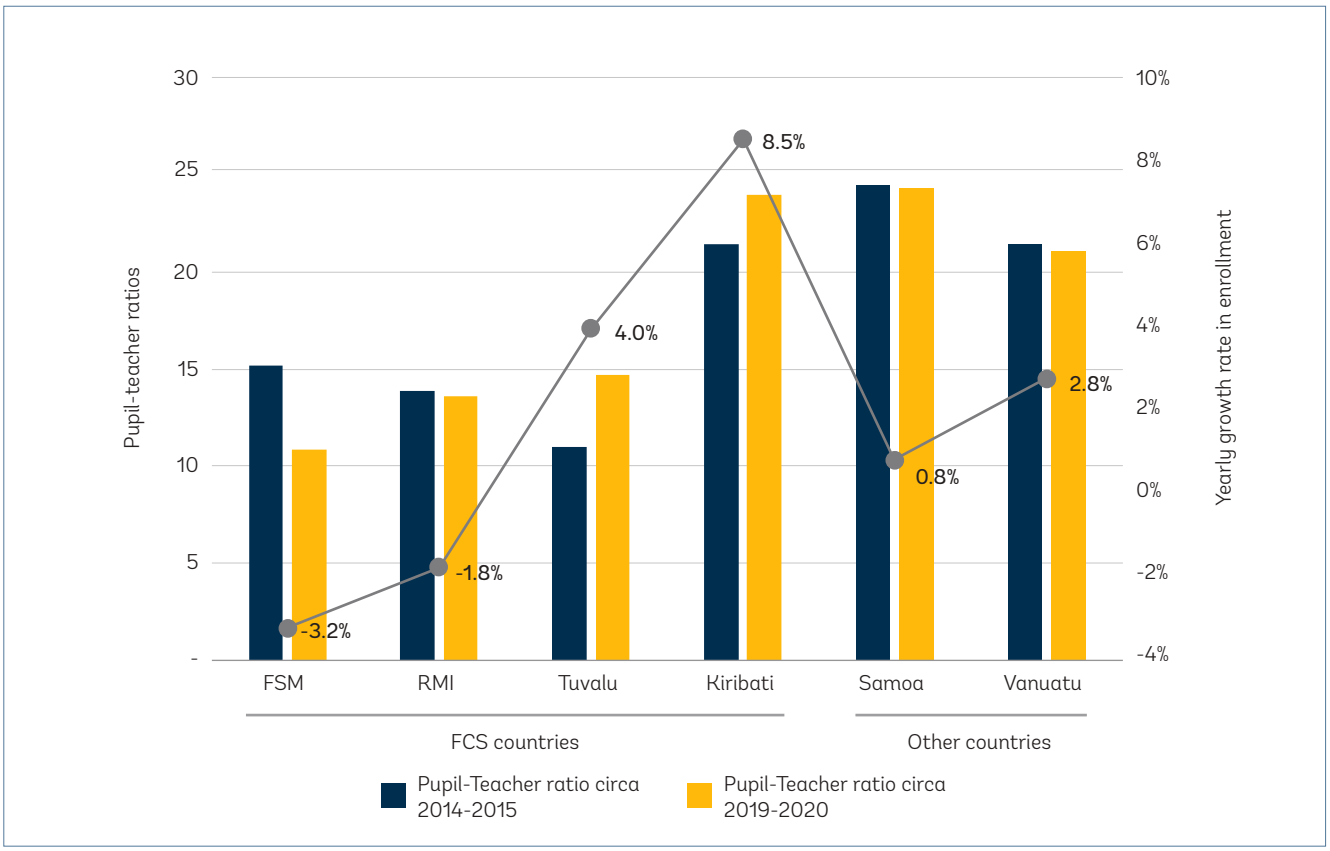


Source: Crawfurd et al., 2021.

3.6.2 Strong population dynamics create challenges for the sector

Demographics are either booming or receding due to massive migration. This makes the sector particularly challenging for policymakers to manage. Total enrollment has been booming in Kiribati, increasing by 9 percent between 2014 and 2019, driven by strong demographic growth but also a rapid development of Early Childhood Education (Figure 3.20). Total enrollment grew by 50 percent during this period, making it challenging for policymakers to recruit and train quality teachers to meet such a rapid increase in demand. While more teachers were hired, it was not enough, resulting in an increase in pupil–teacher ratios by 11 percent, rising to 24 students per teacher. Similarly, enrollment also increased dramatically in Tuvalu, by 4 percent a year between 2013 and 2019. However, compared to Kiribati, Tuvalu started with a more favorable student–teacher ratio (at only 11 in 2013), allowing it to accommodate the additional students by having each teacher teach up to 15 students, on average. In other countries, enrollment shrank, forcing countries to either downsize their teacher workforce or concede lower student–teacher ratios (and, thus, higher costs on a per student basis). In RMI, enrollment decreased by 1.8 percent a year, but the number of teaching positions was cut proportionately. Finally, in FSM, the enrolled population slumped by 3.2 percent a year while the number of teachers increased significantly. The pupil–teacher ratio is now very low, below 11.

Figure 3.20: School enrolment is either booming or receding fast



Source: Author's calculations from education digest. Statistics are not available for Tonga. Teacher–pupil ratios are computed over pre-primary to secondary considering both public and private enrollment.

3.6.3 PICs' small size and high dispersion necessitate higher levels of spending which do not necessarily translate into better outcomes

After accounting for population size and dispersion, education unit costs are still larger than expected in the high-spending countries, slightly lower than expected in Nauru and Palau but significantly lower than expected in the other countries. Across the globe, public education spending per student as a share of per capita GDP tends to increase as the total enrolled population declines, (Table 3.4), reflecting the importance of structural costs. Once per capita GDP and population dispersion is accounted for, unit costs tend to decrease by 7.6 percent when the student population doubles. Given their small size, the PIC-9 are likely to sustain larger education unit costs than typical countries. But population dispersion is also quite limited in some of them, as most people are clustered on the larger islands. Cross-country analysis confirms that a limited part of the large unit costs witnessed in countries with large public revenues are only explained by the profusion of public funding and earmarking of foreign aid to the education sector. In other countries however, unit costs may be lower than what could be needed given the distribution of the population (Figure 3.21). This is consistent with high pupil–teacher ratios found in some provinces of Vanuatu and in Samoa especially.

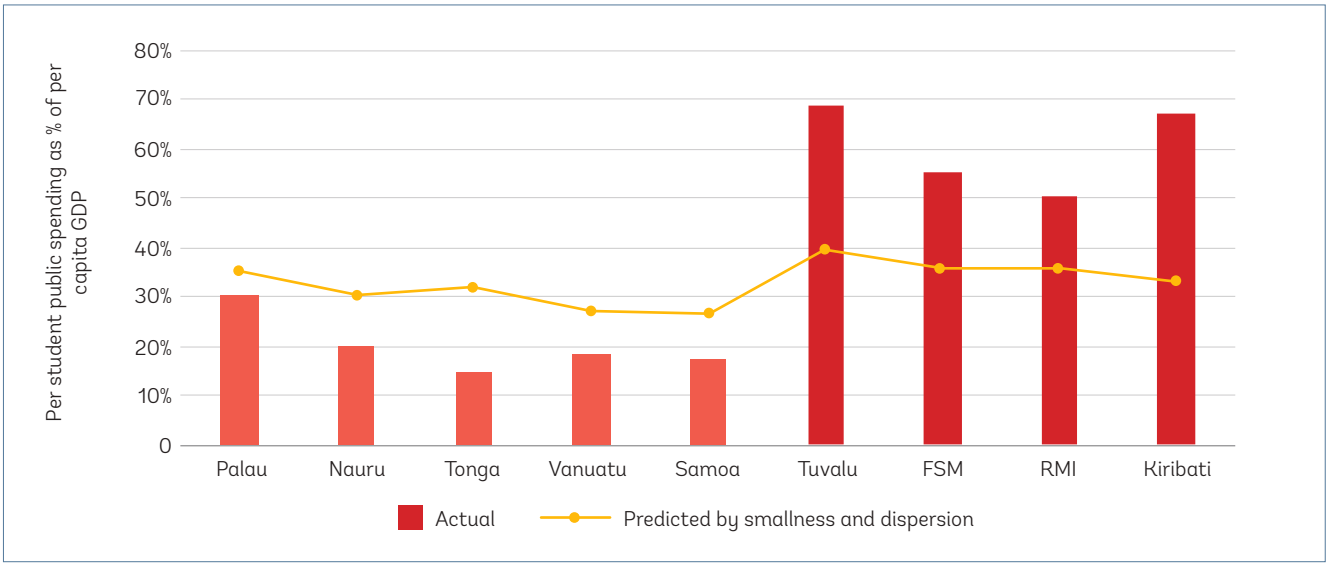
Table 3.4: Global data indicates that spending per student is higher in smaller education systems

Ordinary Least Squares (OLS) regression of the public spending per student as a share of per capita GDP in log, latest available data

	Estimate	Std. error
Per capita GDP PPP, log	0.16	(0.04)
Population dispersion, log	0.11	(0.05)
Total enrolled population, log	-0.11	(0.02)
Intercept	-1.96	(0.44)
# Countries		77
Adj. R2		0.26

Source: Author's calculations from household surveys and World Development Indicators.

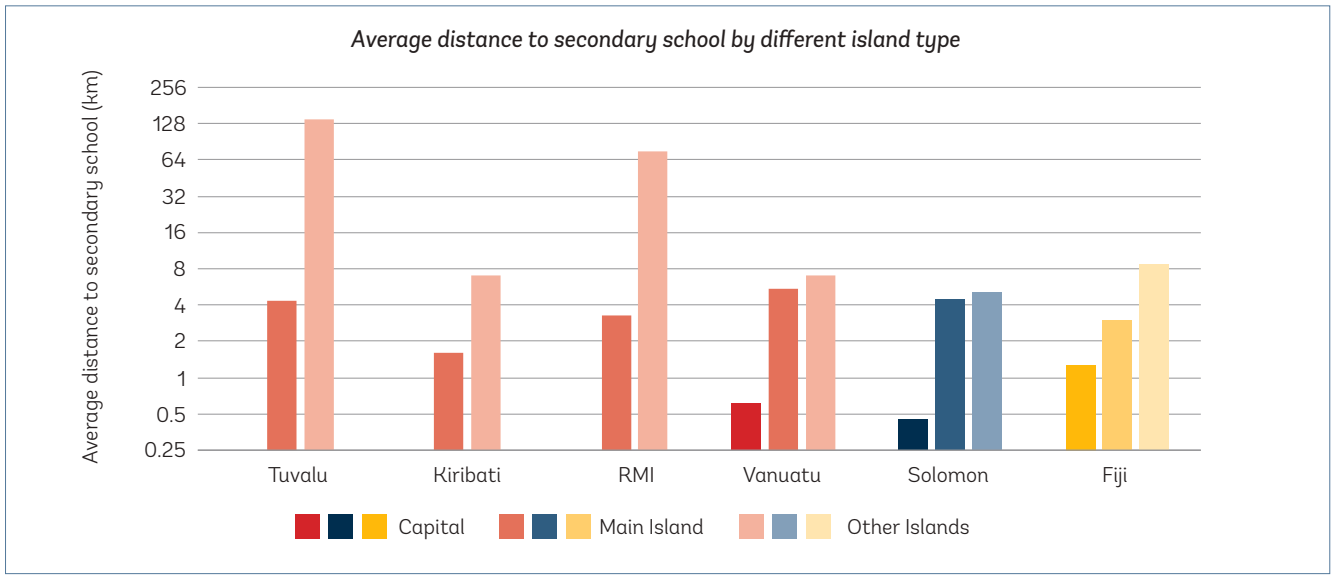
Figure 3.21: Unit costs are smaller than expected given smallness, population dispersion, and level of development in the regular peers but much higher than expected in the high-spending countries



Source: Authors' calculations using EdStats data and national budget data for the PIC countries. OLS regression using latest data available.

The distribution of schools may hamper participation, especially at the upper secondary level. In the high-spending countries such as Tuvalu, Kiribati, and RMI, the average distance to secondary school prevents students to travel daily to it outside of the main islands (Figure 3.22). Countries will need to experiment with different approaches to ensure that children are not dropping out because of lack of access to education, carefully exploring which approach is more acceptable to parents and students while delivering quality education for a reasonable cost. At the extremes, countries will need to find a balance between offering secondary education on main islands (while offering housing and food) versus expanding access to secondary education in the more remote locations. Regarding the latter, extending the services of primary schools by adding secondary grades on the same sites and using the same teaching force could allow a continuity of enrolment in primary in the more remote islands and rural areas. In FSM, most secondary schools host children from kindergarten to Grade 12. In the 1980s, Thailand took a similar approach to expanding secondary enrollment. Specifically, in 1987, the Educational Opportunity Expansion School program was established to add lower secondary classes to existing rural primary schools, without charging tuition fees. Within eight years, the total number of these schools increased to around 6,600, accommodating 21 percent of lower secondary students (Varavarn, 2006). Although these schools tended to be less well equipped and staffed, Thailand's push for expanded secondary enrollment has had long-lasting benefits. Nearly 40 years later, adults who benefited from this push for lower secondary participation were assessed as having stronger cognitive skills than their slightly older peers (who did not benefit from the push to expand secondary education) (World Bank, 2015).

Figure 3.22: Outside of capital cities and the main island, youth need to travel very far to reach their secondary school

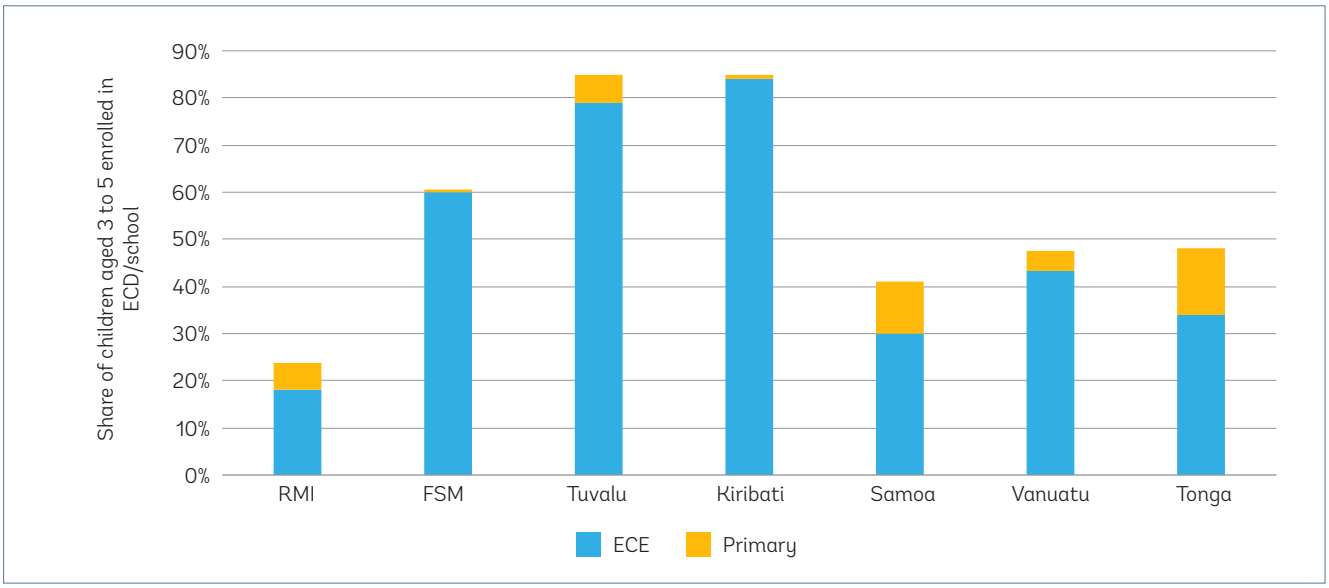


Source: Utz, 2021

3.6.4 Children entering primary school may not be sufficiently prepared

Enrollment in early childhood education is not yet at desired levels, especially in the countries whose fiscal resources are limited (Figure 3.23). Although in Vanuatu a little bit more than half of children aged three to five are enrolled, this share is only about one-third in Tonga and about 22 percent in Samoa. In Samoa, the lack of public supply may be a severe constraint, given that preschool is totally private. Half of surveyed families whose child are not enrolled in ECE[26] justify it by a lack of nearby facilities. Therefore, inequalities of access are significant, as 38 percent of young children in the richest quintile are enrolled in ECE or primary school versus 25 percent in the poorest one. In Tonga, about half of the children aged three to five are enrolled, whatever their quintile. But while the richest tend to go to kindergarten, the poorest start primary education before the official age. This is detrimental to their learning, as they are not 'school ready'. Attendance in Tuvalu and Kiribati is high, as these countries have fiscal resources to subsidize it.

Figure 3.23: Preschool coverage is high in Tuvalu, Kiribati, and FSM but limited elsewhere



Source: MICS 2019 (Tuvalu, Kiribati, Samoa, Tonga), Household Surveys Vanuatu (2019), RMI (2020) Education Digest 2020 (MFSM).

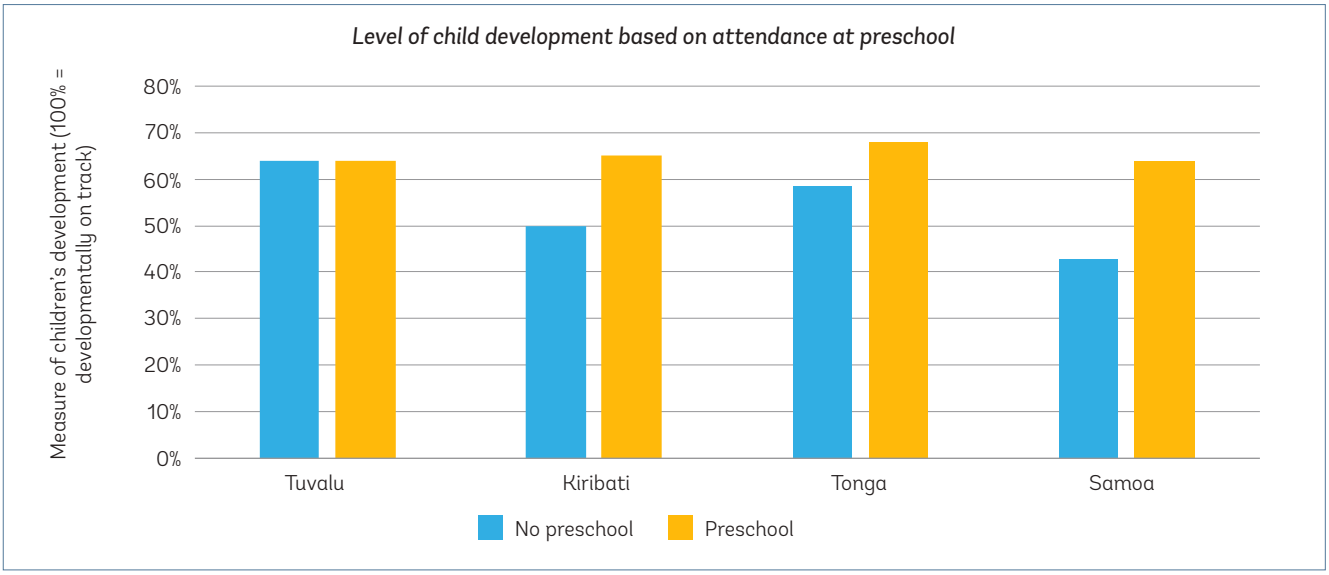
Moreover, there appears room to strengthen the quality of early childhood education further. Tests carried out in several PICs[27] show that most children are behind across several domains—especially perseverance, pre-literacy, and pre-numeracy skills. This is especially the case in Tuvalu, where despite large public spending, children who attend preschool are not developmentally more likely to be on track than their peers who are not in preschool (Figure 3.24). Although most children are suffering from similar developmental issues in the other countries surveyed, preschool attendance is somewhat effective in mitigating part of the effects of poverty in Kiribati, Tonga, and Samoa.

26. Or about one-third of the eligible population.

27. Early Human Capability Index surveys were conducted in Samoa, Tuvalu, Kiribati, and Tonga. It is a holistic measure intended to capture locally relevant early child development across diverse cultures and contexts. Unfortunately, it was only used outside of the Pacific area in India and Tajikistan, so no benchmark for the region can be drawn from that small sample.

In some countries, stunting and insufficient nutrition is negatively affecting children's development. Specifically, it remains a major issue in Kiribati, where 47 percent of children are undernourished, and in Tuvalu, where malnutrition affects 52 percent of young children.

Figure 3.24: Children are not learning much from preschool, with those who enrolled not scoring much higher than those who did not attend



Source: Early Human Capability Index reports. Beyond the gap between students who attended preschool or not, the fact that less than two-thirds of children who were enrolled in preschool are developmentally on track suggests that there are issues about the quality of the preschool education which is provided.

The quality of ECE may be limited by a lack of relevant learning materials and insufficient learning in vernacular language. In FSM, ECE centers are lacking relevant materials and teachers are almost never certified in Chuuk and Yap, while only one-third of ECE teachers in Pohnpei are. Across the PICs, preschool teachers tend to be less qualified and less remunerated. Early grade assessments organized in 2014 and 2015 in Samoa, thanks to an ADB project, demonstrated that students' performance in English and vernacular language were highly correlated. They also showed that while children may read fluently and write, many are still struggling with basic skills such as alphabetical principles, phonological awareness, and phonics. These findings suggest that learning in primary school can be enhanced by teaching pre-literacy and pre-numeracy skills in the vernacular language.

Parental involvement in learning activities with young children (singing songs, naming objects, reading stories, etc.) is limited in the region, which hinders children's development. In Kiribati, only 15 percent of children have age-appropriate books at home. In Tonga, Samoa, and Tuvalu, about half of parents are not reading books to their children. In Kiribati, it is about 60 percent according to the latest MICS results. But econometric analysis[28] indicates that this type of parental stimulation has a sizeable impact on the child's achievement. Children who are read stories score about half a year ahead in numeracy of those who are not. This comes on top of a

28. See A.2 Technical appendix for details.

general exposure to children's books. Children living in households with five children's books are also scoring half a year ahead in numeracy of those without any. Exposure to books and stories explains half of the numeracy gap in Kiribati. This suggests that pre-primary curricula should be specifically designed to counteract household poverty and lack of early stimulation.

Children underperform when not being taught to read in their mother tongue. Econometric analysis of numeracy skills using the latest MICS data shows that children who are taught in the language they are speaking at home perform on average about 0.7 years ahead of those who are not. Such an effect is quite large and contributes significantly to poor numeracy in Kiribati and Tuvalu where more than 30 percent of children are not taught in their vernacular tongue from Grade 4. In fact, once this factor is accounted for, learning is no longer progressing more slowly in the PIC-9 than in the benchmark countries.

3.6.5 Better teaching practices are needed, and, in some countries, more teachers are needed

Samoa is suffering from a lack of public teachers. In Samoa, the maximum pupil–teacher ratio in primary public schools is formally about 30. However, in 2019, only 47 percent of government schools were meeting this target. Class size has been increasing in the last 5 years, along with primary enrolment. About 14 percent of public primary schools had classes of more than 40 children. Using statistical data from the Ministry, one can simulate the number of teachers necessary to meet the class size target in all public schools. The simulation reveals at least 33 percent more primary teachers would be needed.[29] Although containing costs could be a factor as well, the Ministry underlines that the major impediment to adequate class size is the reluctance of teachers to live in rural remote areas.

Many teachers are still lacking qualifications. In Kiribati, only 60 percent of upper secondary school teachers are certified. Moreover, teachers are not allocated efficiently, as many schools match their best teachers with their most proficient students, while struggling kids are grouped together with uncertified and contract teachers. Lack of practical skills also affects most severely children with disabilities. In FSM, almost all teachers hold the necessary degree, but a large majority are not certified—about 72 percent at the ECE level, 63 percent at primary school level, and 68 percent at secondary level. In Tuvalu, all preschool teachers are certified but 40 percent of secondary school teachers are not. In Samoa, according to the Ministry's standards, only 44 percent of teachers appraised in 2018 met the required standards. Teachers who fail benefit from retraining and are re-appraised for a second or third time, if needed. In 2018, half the teachers were deemed proficient after their second appraisal. In Vanuatu, the proportion of qualified teachers has been decreasing overtime. In reaction, the Ministry has recently piloted in-service teacher training programs (the Vanuatu School-Based In-Service Teacher Training) to improve existing teaching practices.

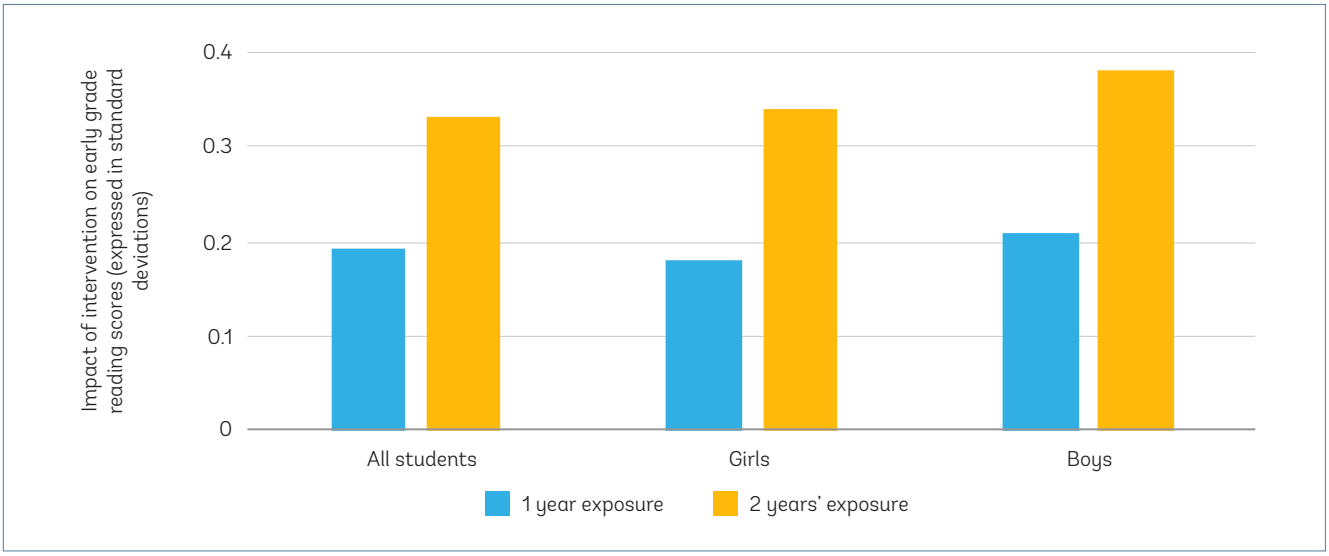
29. This simulation assumes that two adjacent grades could be taught simultaneously by the same teacher, which is a situation encountered in many small schools.

Teaching in English may be hindering performance. In many PICs, including Kiribati, Samoa, and Tonga, many teachers may not be proficient enough in English to deliver their lessons effectively. In parallel, students are not always proficient enough themselves to follow the lessons in English. Therefore, official curricula, which provide for hours of learning in both vernacular and English, are not always followed. As official requirements and actual practices are not always consistent, teachers and students are not supplied with the relevant learning materials, hindering learning further.

Teacher training may not be sufficient and not always relevant. In Tuvalu, only 17 teachers out of 230 attended in-service training in 2016. In Samoa, resources for teacher training represent only 1.3 percent of the Ministry's budget, which may be too limited given the number of new teachers to train and the assessed needs for retraining. Although teaching practices have not been systematically assessed yet thanks to classroom observations or teachers' surveys, poor learning outcomes and the large share of teachers with tertiary education can hardly be reconciled without questioning teaching practices. A survey of in-service teaching practices in nine East Asian countries in 2022 revealed that large training programs in these countries included few of the key features of successful training programs. For instance, the amount of time spent practicing what was taught during the training—a key feature of successful training program—is well below best practice and likely too little to have much impact on teachers' classroom skills (World Bank, forthcoming). Conducting a similar assessment of the in-service training programs conducted in PICs would fill in an important knowledge gap.

Global evidence, including from PICs, suggests that interventions focused on improving teaching quality could have a large impact on student learning. For instance, an ADB project in FSM in 2014–2015 put in place a limited intervention by supplying learning materials to a set of primary schools and undertaking limited teacher training. After one year, the share of proficient students increased by about 20 percent both in reading and literacy. Similarly, Tonga's Come Let's Read and Write (CLRW) program provided training focused on content, instructional materials, and coaching on a new reading method. The program improved average reading scores by 0.19 standard deviations (SDs) after one year and 0.33 SDs after two years of the intervention (Figure 3.25), increasing the proportion of Grade 2 students who could read from 18 to 29 percent. Effects for girls and boys were similar. The CLRW program provided follow-up in the form of regular coaching focused on subject content. The intervention was implemented at an annual recurrent cost of US$62.57 per student, or approximately 7 percent of what is currently spent on a per student basis in Tonga.

Figure 3.25: In Tonga, rigorous impact evaluations of in-service teacher training programs in the region show that better training can lead to better learning outcomes[30]



Source: Macdonald et al., 2018.

3.6.6 Better governance and increased transparency can reduce inefficiencies

Governance is not necessarily an issue in all the PIC-9, but lack of transparency is clearly an issue in some countries. In Vanuatu, all public and private schools are receiving a grant from the government which is based on the level of education and strictly proportional to the number of students enrolled. The main objective of the grant is to replace or reduce school fees to allow universal enrollment. The amount transferred to the school is published on a dedicated website, ensuring maximum transparency. The use of the grant is regulated and is supporting a school improvement plan, voted by the school council, which must include representatives of teachers and parents. Schools also have monitoring requirements. Following the implementation of this system, enrolment in Vanuatu progressed rapidly (EEIP, 2017). Samoa also implemented a universal school grant, but it is less transparent, although the amount is also related to the enrolled population and the funds are managed by school principals. As noted by a preliminary evaluation by Australian Aid (Catherwood, 2016), the effectiveness of school grants in Samoa has been disappointing, with little effects on participation for a cost which has ballooned to represent 14 percent of total education spending in the country.

30. The figures shown here are from Table 9 of Macdonald et al., (2018). It shows the effect of CLRW on average Early Grade Reading scores (expressed in standard deviations). Calculating the effect of the intervention is possible in this case because communities that benefitted from the intervention were randomly selected, allowing for comparison of a treatment and a control group.

The actual use of education spending remains unknown in FSM, limiting identification and correction of inefficiencies. In FSM, the states are managing the money, most of which comes from US grants. The duplication of administrative structures is likely a major source of inefficiency, but the use of education spending is not made public.

Although there is no evidence of major governance issues, there appears to be scope for strengthening the way teacher absenteeism is monitored. There is no evidence of massive corruption in the region.[31] Monitoring indicators are nevertheless lacking. Teacher absenteeism is not publicly tracked and published, while recruiting, retention, and deployment of teachers—especially to remote islands and rural areas—is an acknowledged issue for the PIC-9. As teachers' wages are competitive and classes can be small, the wage bill is significant across the region.[32] But little learning is happening in the classroom and education authorities need to ensure that the most obvious explanation (that teachers are not showing up as frequently as they should) is ruled out in all cases.

3.7 How can the PIC-9 improve education performance and spending efficiency?

3.7.1 Actions

Reflecting on the analysis presented above, the chapter provides the following recommendations to accelerate learning for all children and get more value for the money spent on education. Country-specific recommendations are also included in Table 3.5.

Short-term actions

First, an essential condition for progress is the political commitment to substantially accelerate learning of foundational skills. Making improved learning outcomes for all children a clear and urgent national, political priority should include:

- Reaffirming national commitment to achieving Sustainable Development Goal (SDG) 4.1[33] and initiating public discussion on achieving critical education outcomes
- Developing and then launching a costed plan for accelerating learning, using evidence-informed strategies and interventions. The World Bank and several other partnerships have prepared the RAPID framework to support countries in identifying such strategies and interventions[34]
- Engaging all partners involved in education, including parents, in a national movement to achieve SDG 4 benchmarks on foundational learning.

31. The Australian evaluation of the first stages of the school grant program in Samoa noted that mismanagement of school funds by principals was not uncommon (Catherworth, 2016).
32. The level of the wage bill is rather about or above international standards in the PICs. Wages account for a rather small part of education spending because other types of education spending are much larger than in other countries, not because the wage bill is too low.
33. SDG target 4.1 is 'By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.'
34. For more details on RAPID framework: https://thedocs.worldbank.org/en/doc/e52f55322528903b27f1b7e61238e416-0200022022/related/Guide-for-Learning-Recovery-and-Acceleration-06-23.pdf

Second, as part of the costed, evidence-informed plan for accelerating learning, the following strategies and interventions are likely to be especially important, given available evidence in PICs:

- Aligning instruction with learning needs through approaches such as targeted instruction, structured pedagogy, tutoring, and self-guided learning.[35] To guide what will work best in different country circumstances, there is a need to gather more information about teachers' subject knowledge and current teaching practices. Classroom observations may help shed some light on how teaching practices may not be contributing as much as they should to students' learning. Having such information would allow for more targeted support to teachers. There are already rigorously evaluated interventions (e.g., the CLRW program in Tonga) that could be scaled up, and likely replicated in other countries
- Reinforcing learning in vernacular language, especially in primary school, by adapting curriculum, developing materials, and related assessment.

Third, more and better data are needed to guide decisions (Box 3.2), including the following:

- Make public the information collected from PILNA and use these data to better understand the underlying drivers of poor performance
- Gather data on teachers' content knowledge and current teaching practices to help design what training (and what amount) is needed; and track whether such training is having an impact
- Report on a yearly basis the number of tertiary students and beneficiaries of overseas scholarships to ensure that economic returns and equity can be assessed. Review the effectiveness of overseas scholarship with the development partners which contribute to their funding
- Ensure regular data collection (especially enrolment numbers) to inform the distribution of school grants, deployment of teachers, and development of plans to increase enrolment
- Fill large knowledge gaps in public accounting of education spending and how decentralized funding is used, both at the local and the school level when applicable. Conducting Public Expenditure Tracking Surveys on particularly large grant programs would be important
- Build capacities in ministries of finance and education to engage in more evidence-based and strategic discussions around spending relative to the results the education sector is achieving.

Fourth, explore ways of reducing 'overhead' costs, including through enhanced regional cooperation, focusing on which functions could be delivered better through cooperation (Box 3.3). For example, on curriculum design, defining and monitoring teacher standards, and more pooling of budget resources to expand a regional university system.

Medium-term actions

Improve children's readiness for school by widening access to Early Childhood Education from the age of three, through local centers close to the population settlements. While such expansion would require substantial additional resources, statistical analysis suggests that this is likely the easiest way to improve overall poor outcomes.

35. Ibid.

Use a range of different policy instruments to expand access to secondary schools for children residing in the most remote areas, experimenting with different modalities to expand access while rigorously monitoring the costs of such modalities and their impact. Above all, the focus should be on people rather than places. For example, this could involve supporting outer island students to access secondary schooling in urban centers, by providing subsidies for transport and the cost of living away from home. Alternatively, countries could consider adding additional grades to existing primary schools in the most remote areas to allow students to continue to study (beyond their primary grades) in nearby schools. Allowing such an expansion would likely be cheaper than the boarding option, relying on continuing enrolment at the secondary level while benefiting from the existing teaching force and infrastructure to lower unit costs. Such decisions should also consider the relative quality of learning in the urban secondary schools compared to outer island schools.

Box 3.2: Data challenges in the education sector in the PIC-9

- Monitoring actual participation rates is challenging in the context of rapidly evolving demographics, as outward migrations are accelerating, and fertility is declining.
- The quality of national standardized tests may be uneven, especially in vernacular languages. National test results are not necessarily consistent with regional (PILNA) or UNICEF evidence. Given the number of resources needed to support such assessment and the elevated level of technical qualification required, this is typically an area where countries could improve the quality of service while lowering costs by pooling resources together at the regional level. Coupling PILNA with region-wide classroom observations for instance, could allow for the identification of teacher training gaps.
- Evidence on teaching practices and time on tasks (i.e., the amount of time students spend being actively involved in the learning process) is still missing in most countries.
- Further reporting and analysis is needed in relation to school grants, which absorb a large share of public education spending.
- Detailed breakdowns of education spending might be difficult to get because in some countries international grants are transferred through to schools (like some of the Compact Funds) or public funding is decentralized (in FSM and Vanuatu). The government may require international funders to report their grants to public schools.

3.7.2 How can development partners help?

Development partners should continue to finance activities aimed at improving long-term sustainability and efficiency of the education sector, while also helping to build capacity for strategic decision making. The role of development partners has been highly beneficial when helping to establish and fund regional institutions, such as the University of the South Pacific and the Pacific Data Hub. Ongoing support for regional efforts to improve teaching practices, training, and management should also continue, as these can help to share experiences, develop common standards, and reduce costs. Despite significant donor engagement in the education sector in several PICs, many countries still lack critical educational materials, including textbooks in vernacular languages, which clearly slows down student performance. Additional investments to expand access to Early Childhood Education could also have large returns. Development partners could play an important role in addressing these gaps. In all cases, financial support should go through national systems and governance structures—which can also be enhanced with donor technical support. Finally, development partners could also help build capacity in ministries of finance and education to have more strategic discussions around education spending and education performance, using data and evidence as inputs into budget discussions.

Box 3.3: Are there any quick fixes for education spending in the PIC-9?

- **Is there scope for reducing spending on the wage bill through more modest wage increases in the future?** This is unlikely. Teachers' wages are in line with market wages in the region. Teachers' wage premia are higher in Samoa and Tonga. In Tonga, the number of teachers is only one-third of the number of adults with tertiary education, which may explain the premium.[36] In Samoa, 17 percent of adults have tertiary education, but 10 percent of adults with a tertiary degree are already teachers.
- **With private spending lower than in other MICs, is there room to increase private spending without hurting access to education?** Possibly, to some limited extent, but any such moves would need to carefully consider the impact of such increases on especially poor households' ability to send their children to school.
- **Is there scope for finding savings elsewhere?** Possibly, especially in the high-spending countries, through rationalization of support services and a dedicated review of the effectiveness of tertiary spending. Non-wage expenditures are exceptionally high in PICs, but it is unclear to what extent they contribute to education outcomes. As the enrolled population is small, maintaining all necessary functions of a fully-fledged education system in each country is costly. Given that many of the PIC-9 share the same

36. Best practice is for schools to be staffed by tertiary-educated teachers. This requires offering wage premia to teachers, as the demand of tertiary educated workers from other parts of the economy is also very high.

challenges—teacher training; assessment; curriculum and learning material design; teachers' qualifications; and data collection and analysis—there may be room for consolidation by pooling resources and capacities at a regional level. This could include, for instance, closer alignment of curricula within the region, strengthening of regional cooperation for defining and monitoring teacher standards, and more pooling of budget resources to expand a regional university system.

- **Is there scope for reducing spending by reducing the number of education staff?** Possibly in some countries but not in all. More data would be needed to check whether schools and classes could be merged without impairing access. Pupil–teacher ratios are already low among the high-spending PICs, and sometimes declining, like in FSM. But given that schools tend to be small as the population is scattered, the room for consolidation is limited. In Samoa, simulations indicate on the contrary, that additional classes should be opened to accommodate a growing population and reduce frequent overcrowding.

Table 3.5: Spending efficiency and quality measures by country

Country	Spending Efficiency Measures	Quality Measures
Kiribati	***Recommended Timing: Complete detailed studies in the short term, reform in the medium to longer term*** • Based on Kiribati's smallness and dispersion, unit costs could be expected to be reduced by at least 13 percent, amounting to 2.8 percent GDP or US$5.8 million • Review the effectiveness of overseas scholarships. These could be cut significantly by organizing training in the country. A 50 percent decrease would free 1.8 percent of GDP • Review the effectiveness of private subsidies and school grants. A 20 percent cut would free 0.6 percent of GDP • Operational costs of schools are very high, more than five times as large than in Samoa or Tonga. A 25 percent cut would free 0.5 percent of GDP	***Recommended Timing: Short term*** • Publish yearly statistics on enrollment in public and private schools • Collect classroom data on teaching practices ***Recommended Timing: Medium term*** • Consider extending teaching in vernacular language at least until the end of primary school to help reduce learning poverty
Nauru	***Recommended Timing: Medium to longer term*** • No detailed data is available but teaching remunerations seem high and class sizes are declining fast, so rationalization might be needed in the decade to come • Limited overall savings could be attained now given that unit costs are in line with international benchmarks and participation is still not universal	***Recommended Timing: Short term*** • Conduct a yearly school census to monitor closely total enrolment in a context of rapid demographic decline • Increase practical training for teachers • Collect classroom data on teaching practices
RMI	***Recommended Timing: Complete detailed studies in the short term, reform in the medium to longer term*** • Based on RMI size and population dispersion, unit costs could be expected to be 14 percent lower, which would represent savings amounting to 2.2 percent GDP or US$5.7 million • Development projects account for a large part of total spending. Unit costs beyond these are only 15 percent above developed countries • Operational costs of schools are extremely high (five times as high as in Samoa or Tonga). A 50 percent cut would free 0.6 percent of GDP	***Recommended Timing: Short term*** • Conduct a yearly school census to monitor closely total enrolment in a context of rapid demographic decline • Release to the public a yearly detailed budget of how education spending is spent • Conduct a review of the effectiveness of development projects for the quality of learning ***Recommended Timing: Medium term*** • Increase spending in Early Childhood Education to expand access (currently 18 percent of children aged 3–5 years)
FSM	***Recommended Timing: Complete detailed studies in the short term (<2 years), reform in the medium (2–4 years) to longer (4+ years) term*** • Based on FSM size and population dispersion, unit costs could be expected to be 14 percent lower, which would represent savings amounting to 1.3 percent GDP or US$5.3 million. However, realizing any meaningful savings in the current decentralized setting, where many administrative costs are duplicated at the federal and state level, appears challenging • Unit costs are already significantly higher than in developed countries and falling enrollment may increase them significantly in the years to come	***Recommended Timing: Short term*** • Conduct a yearly school census to monitor closely total enrolment in a context of demographic change • Collect classroom data on teaching practices

Country	Spending Efficiency Measures	Quality Measures
Palau	***Recommended Timing: Complete detailed studies in the short term, reform in the medium to longer term*** • Unit costs are already significantly higher than in developed countries and falling enrollment may increase them significantly in the years to come. But given the country's smallness and dispersion, it might be difficult to reduce them significantly. Operational costs of schools are nevertheless very high, five times as high as in Tonga and Samoa. A 50 percent cut would free 0.5 percent of GDP or US$1.1 million	***Recommended Timing: Short term*** • Conduct a yearly school census to monitor closely total enrolment in a context of rapid demographic decline

Samoa	***Recommended Timing: Complete detailed studies in the short term, reform in the medium term***
	• Unit costs are in line with international benchmarks but:
	  ◦ Additional classrooms are needed
	  ◦ Large subsidies to private schools and school grants make teacher remunerations not transparent. They should be phased out while training spending should be increased
		Recommended Timing: Short term
		• Increase practical training for teachers
		• Lower official expectations in formal examination
		• Collect classroom data on teaching practices and materials
		
		Recommended Timing: Medium term
		• Increase spending in Early Childhood Education to expand access (currently 30 percent of children aged 3–5 years)
		• Consider extending teaching in vernacular language at least until the end of primary school to help reduce learning poverty

Tonga	***Recommended Timing: Complete detailed studies in the short term, reform in the medium term*** • Unit costs are in line with developed countries,[37] but large subsidies to private schools and school grants reduce the transparency of teacher remunerations and are inefficient. They should be reviewed and connected more strongly with actual enrollments (which do not seem to be tracked now) in a context where the demographic decline may induce falling pupil–teacher ratios and smaller classes	***Recommended Timing: Short term*** • Conduct a yearly school census to monitor closely total enrolment in a context of rapid demographic decline • Conduct a review of the effectiveness of school grants and private school subsidies • Collect classroom data on teaching practices and materials ***Recommended Timing: Medium term*** • Increase spending in Early Childhood Education to expand access (currently 34 percent of children aged 3–5 years) • Consider extending teaching in vernacular language at least until the end of primary school to help reduce learning poverty

37. Real unit costs are likely to match what can be seen in developed countries as some development funds have not yet been reported in the BOOST data.

Country	Spending Efficiency Measures	Quality Measures
Tuvalu	***Recommended Timing: Complete detailed studies in the short term, reform in the medium to longer term*** • Unit costs are excessive. Based on smallness and dispersion, they could be 23 percent lower (which represents 4.8 percent of GDP or US$3 million) • Review the effectiveness of overseas scholarships. These could be cut significantly by flying in educators. A 50 percent cut in this alone would free 2.6 percent of GDP • Operational costs of schools are extremely high, around five times as high as in Tonga or Samoa. A 50 percent cut would free 0.7 percent of GDP	***Recommended Timing: Short term*** • Publish on a yearly basis the number of beneficiaries of overseas scholarships ***Recommended Timing: Medium term*** • Consider extending teaching in vernacular language at least until the end of primary school to help reduce learning poverty • Increase practical training for teachers
Vanuatu	***Recommended Timing: Short term*** • Unit costs are in line with international benchmark. BOOST data not available. Administrative costs are contained. Although school grants are large, they are transparent and have been reviewed as effective. But a recent household survey indicates that parents, even the poorest ones, are still paying considerable amounts to schools to cover costs which should be paid for by the school grants. These school fees should be formally eliminated, and this should be enforced by the government, or the actual usefulness of school fees should be questioned	***Recommended Timing: Short term*** • Increase practical training for teachers • Collect classroom data on teaching practices and materials • Conduct a school census to assess the adequacy of school infrastructure which has been stretched by the recent rapid demographic growth ***Recommended Timing: Medium term*** • Consider extending teaching in vernacular language at least until the end of primary school to help reduce learning poverty • Increase spending in Early Childhood Education to expand access (currently 43 percent of children aged 3–5 years)

4. Health

4. Health

4.1 Introduction

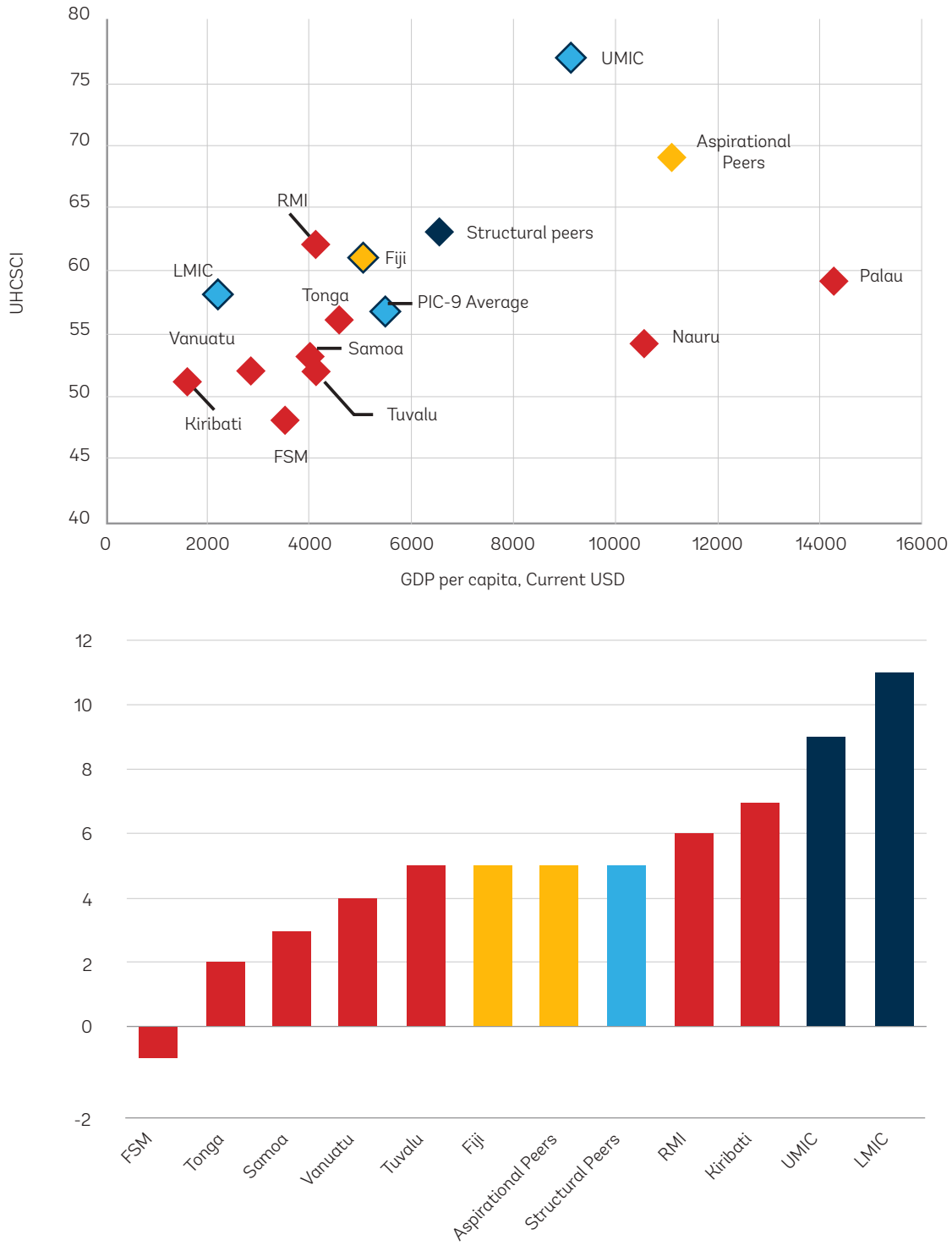
The PIC-9 face unique logistical, geographical, governance, and financial challenges in planning, designing, and delivering health care to a highly dispersed population. The impact of the COVID-19 pandemic has further highlighted these challenges (Box 4.4). Health care services across the PIC-9 are largely government delivered and funded. The ministries of health (MOHs) are the governments' main arm for managing and coordinating the provision of health services. The MOHs function as central administrator, funder, regulator, policymaker, and provider of almost all health services. Health services are largely offered free of charge to citizens and residents through a network of hospitals, lower-level facilities (LLFs), and public health programs. The private sector plays a minimal role, with limited private practices providing services in larger urban centers and in some hospitals. Faith-based and civil society organizations provide some public health services but have relatively limited engagement and integration with MOHs. Most of the PIC-9 are unable to offer specialist diagnostic or therapeutic services, so domestic health services are supplemented by Visiting Specialist Medical Teams (VSMT) and frequent and expensive overseas medical referrals (OMR). Medical conditions requiring escalated care through VSMT or OMR vary greatly across the PIC-9 and largely depend on the availability of local specialists and/or necessary facilities.[1]

Despite substantial public spending, PIC-9 progress towards Universal Health Coverage[2] (UHC) has been slow compared to peers and countries with similar levels of income. Over the past decade, public spending on health was high in the PIC-9 relative to peers and relative to the PIC-9's level of income, both as a share of GDP and as a share of total government spending. Despite this sustained high level of spending, the PIC-9 have lower UHC Service Coverage Index (SCI) scores than their aspirational and structural peers, as well as their lower-middle income and upper-middle income country counterparts. Most of the PIC-9 have also registered smaller increases in UHC SCI scores between 2010 to 2019 than lower-middle income countries (LMIC), upper-middle income countries (UMIC) and aspirational and structural peers (Figure 4.1).[3] The average sub-index[4] on infectious diseases has seen the biggest improvement since 2010, while the average sub-index score on NCDs has decreased, with NCDs accounting for around 75 percent of all deaths in the Pacific. Many of these NCD-related deaths are premature (before 70 years) and are preventable (48 percent of NCD deaths in LMIC are estimated to be premature) (Reeve et al., 2022), and most PICs have rates of premature deaths much higher than the rest of the world. The NCDs burden thus directly contributes to lower HCI score across the PIC-9.

1. Apart from therapeutic services such as definitive surgeries, patients from several PIC-9 are also being referred abroad for diagnostic services e.g., magnetic resonance imaging.
2. UHC means that all people have access to the full range of quality health services they need, when and where they need them, without financial hardship. It covers the full continuum of essential health services including health promotion, prevention, treatment, rehabilitation, and palliative care.
3. The largest improvement on UHC SCI since 2010 was seen in Kiribati (16 percent increase) while Tonga reported the smallest improvement (4 percent). In 2019, Vanuatu reported the lowest UHC SCI (48) while RMI reported the highest (67).
4. The UHC SCI is composed of four sub-indexes on infectious disease, non-communicable diseases, on reproductive, maternal, newborn and child health, and on service capacity and access (WHO GHO).

Figure 4.1: Estimated progress in UHC is lagging across the PIC-9

UHC service coverage index vs GDP per capita, 2019 (top), and index point change, 2010 to 2019 (bottom)



Note: The UHC SCI ranges from 0 to 100 (100 being the highest possible score).
Source: WHO GHO.

This chapter sets out to answer the following questions: How much is currently spent on public health? Who funds that spending? What is the composition of that spending? How has this changed over the past decade? How does it compare to PIC-9's peers? What have PIC-9 achieved in terms of health outcomes? And is there scope for improving the efficiency of existing spending on health?

4.2 What are the key structural factors that define PIC-9 health systems?

National Health Strategic Plans (NHSP) are the overarching health framework that provide the overall strategic directions for MOHs to progress UHC. Furthermore, several countries have developed explicit Role Delineation Policies (RDP) or Packages of Essential Health Services (PEHS) that define the minimum package of services to be offered through all levels of health facilities (Box 4.1). Monitoring progress on NHSP and on the implementation of RDPs/PEHS is weak in most countries.

Box 4.1: PIC-9 Health sector strategies to progress UHC

Kiribati	NHSP 2020–2023 & RDP
Tuvalu	NHSP 2020–2024 & RDP
Tonga	NHSP 2020–2030 drafting was put on hold when the Pandemic hit. MOH is relying on its FY20–FY22 Corporate Plan and budget. PEHS
Samoa	Health Sector Plan 2019/20–2029/30
Vanuatu	National Health Sector Strategy 2021–2030 & RDP
FSM	Framework for Sustainable Health Development in the Federated States of Micronesia: 2014–2024
RMI	Ministry of Health and Human Services Strategic Plan 2022–2030
Palau	NHSP 2016–2020 (more recent not available)
Nauru	NHSP 2016–2020 (more recent not available)

Note: Many of the NHSPs have lapsed since 2020, with COVID-19 delaying the revisions of existing policies; rollout and implementation of PEHS/RDPs remains slow.

Expenditure on health is mostly public, funded by the government (from a combination of domestic revenue and varying but relatively high levels of external financing) and, to a lesser extent, through social health insurance (SHI) in the three COFA countries (FSM, RMI, and Palau). Out of pocket (OOP)[5] payments are low, but do not account for the high costs associated with travel and missed work. MOHs consistently spend a high proportion of total government expenditure, and this has been maintained throughout the pandemic. Public spending on health is important for health outcomes of the whole population, and in particularly for the poor and vulnerable, as they are more likely to obtain health care from largely free-of-charge publicly funded facilities.

Health sector governance and management are weak across the region, with limited oversight of how resources are allocated and used, and what health outcomes are achieved. Governance mechanisms are underdeveloped and limit capacity to implement joint action across sectors and stakeholders (particularly citizens) to improve health outcomes. Many countries do not hold regular management meetings to monitor health service outcomes against annual workplans and budget implementation. MOHs and ministries of finance (MOFs) are challenged to coordinate, plan, implement and systematically track the various contributions to the health sector, particularly in-kind contributions from development partners (DPs). Poor governance and management lead to human resource vacancies not being filled, poor performance management and supervision, facility closures, medicine stockouts, etc. This leads to inefficient spending (i.e., on procurement, see Section 4.6.3) and underspending of budget allocations (particularly of DP support). The lack of evidence of results and persistent underspending make it difficult for MOHs to make the case to MOFs for additional funding for new programs. Supportive supervision, monitoring of staff attendance, and maintenance of facilities and equipment are infrequent or non-existent. Health information is vital for informing planning and decision-making; however, health information is often outdated or incomplete. Where available, digital health information systems (HIS) are often fragmented and not interoperable, although several PIC-9 nations are improving or implementing new HIS which should be functional in coming years. Being able to respond to health emergencies requires, among other things, timely quality HIS such as digitized individualized health and immunization registers, and pharmaceutical and vaccine logistics systems.

The dispersion of PIC-9 populations over many remote and small islands poses challenges for an equitable and efficient delivery of health services. This dispersion is reflected in spatial inequalities in access to health services, with MOHs constantly facing the tradeoff between equity, efficiency, and other objectives that characterize the delivery of UHC to a small population dispersed over large, difficult to access geographies. Specialist and hospital-based care is centralized in higher population urban centers, exacerbating health care access inequality. Patients often travel long distances at great cost to receive the medical care that they need. Access to basic health care, as assessed by outpatient visits, is higher in urban compared to rural settings (World Bank, 2022c; Samoa MOH, 2019; World Bank, 2018; World Bank, 2020c).[6] In this context, delivering complex clinical care on a permanent basis to citizens in rural and remote areas

5. OOP payments remain low in most PIC-9 because most services are provided by the government free of charge at the point of service—a characteristic PIC-9 should seek to maintain. Small populations in most PIC-9 deter the development of private health facilities.
6. Outpatient visits per capita per year was 4.7 before 2020 and reduced to 3.8 in 2020 in Kiribati, 1.2 in Samoa, 3.7 in Tonga and 0.6 in Vanuatu.

is difficult because capacity must be sustained on an ongoing basis even if these services are not used regularly. From a cost and quality perspective this is not viable. When specialized services are available, they are often underutilized (small populations thus small number of patient cases). While improving access to health services remains important, quality of care (which is often poorly tracked) has a bigger impact on health outcomes and mortality as it reduces quality of life, wastes considerable resources, and damages human capital and productivity (Kruk, 2018).[7] The COVID-19 pandemic has reinforced that adequate quality of care is fundamental for health security and for providing effective frontline services.

4.3 How are health services financed?

This section summarizes the key sources of health sector financing, highlighting the critical role of the public sector. Obtaining a complete picture of health system financing requires an analysis of spending from both the public and private sectors, and both domestic and external financing sources. This section first considers total health expenditure (both public and private) and then focuses on public expenditure (Box 4.2).

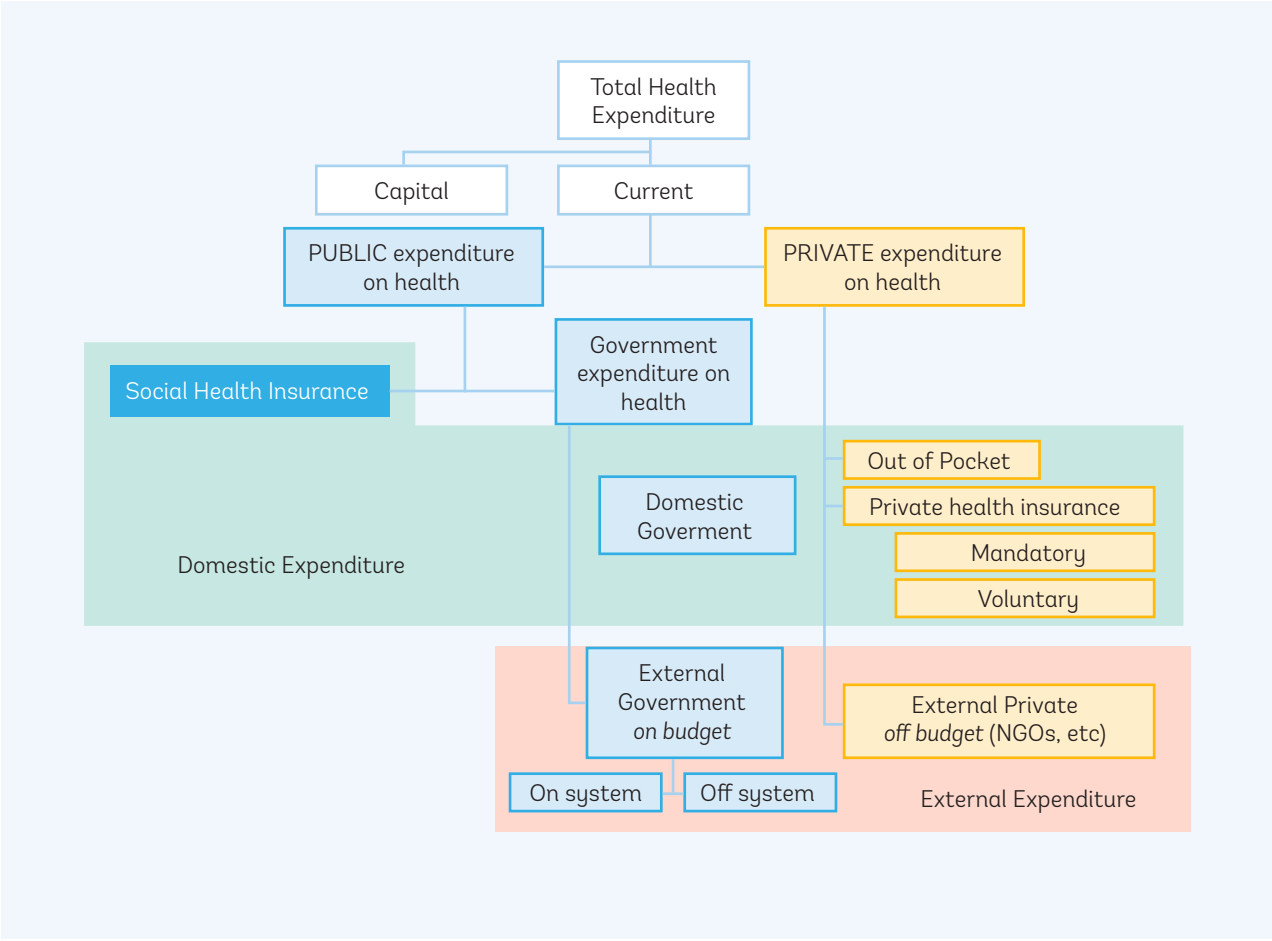
Box 4.2: Composition of total health expenditure

Total health expenditure (THE) includes capital expenditure and current health expenditure (CHE), with the latter including expenditure made by both the private and the public sectors.

Public expenditure on health (PEH) includes government financing and compulsory financing schemes such as SHI. Government financing includes the domestic contribution of governments, raised through general consolidated revenue collection and on-budget external financing—both on and off system.

Private health expenditure can also be split between domestic and external financing, and includes OOP payments, private external expenditure, and private health insurance.

7. Poor quality health care is now a bigger cause of mortality than lack of access to health care globally; an estimated 60 percent of deaths that could have been avoided are a result of poor-quality care, compared to 40 percent of total deaths owing to lack of access to health care.

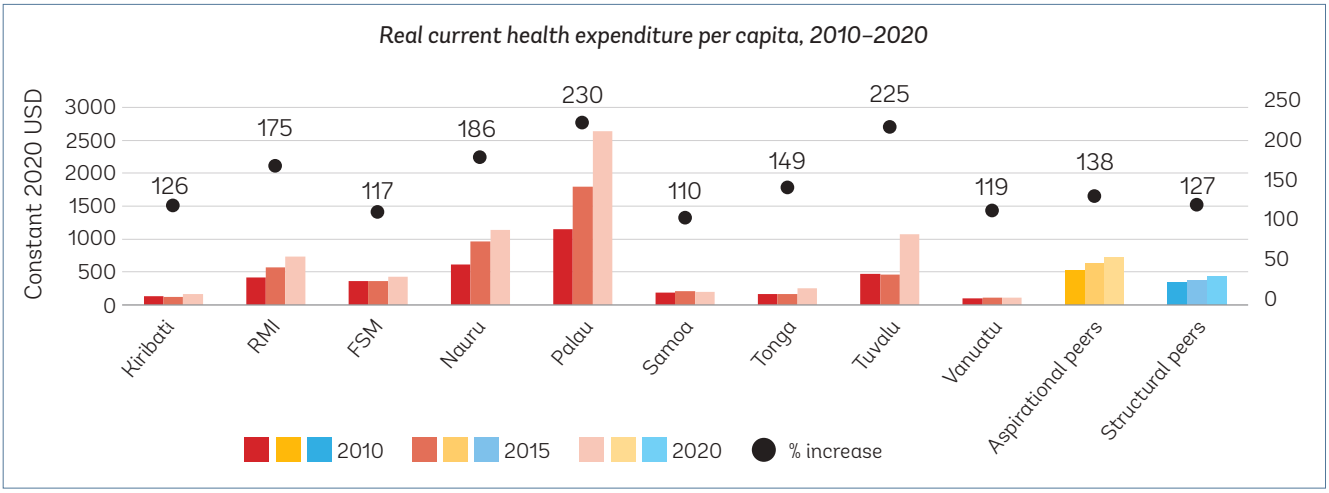


4.3.1 Health services are largely public, financed by governments through domestic and external revenue, with households and private insurance playing a minor role

Real CHE almost doubled on average across the PIC-9 in the last decade, rising in some countries much faster than in aspirational and structural peers (Figure 4.2).[8] Despite the faster increase, the level of CHE per capita in the PIC-9 paints a mixed picture compared to peers. Kiribati, Samoa, Tonga, and Vanuatu spend less per capita than peers; RMI, FSM and Tuvalu about the same; and Nauru and Palau much more. Nevertheless, CHE as a share of GDP remained higher in the PIC-9 than in structural and aspirational peers over the decade to 2020 (Figure 4.3). According to the WHO Global Health Expenditure Database (GHED), capital expenditure in health represented less than 1 percent of GDP in all PIC-9 in 2020 (similar to aspirational and structural peers) and was largely domestically financed by the public sector. In reality, however, large health sector capital projects in the PIC-9 tend to be funded by external partners and financed off-system, leading to a lack of data on capital expenditure. Furthermore, smaller capital expenditures (both domestically and externally funded) are often included in CHE data because of national budget structures.

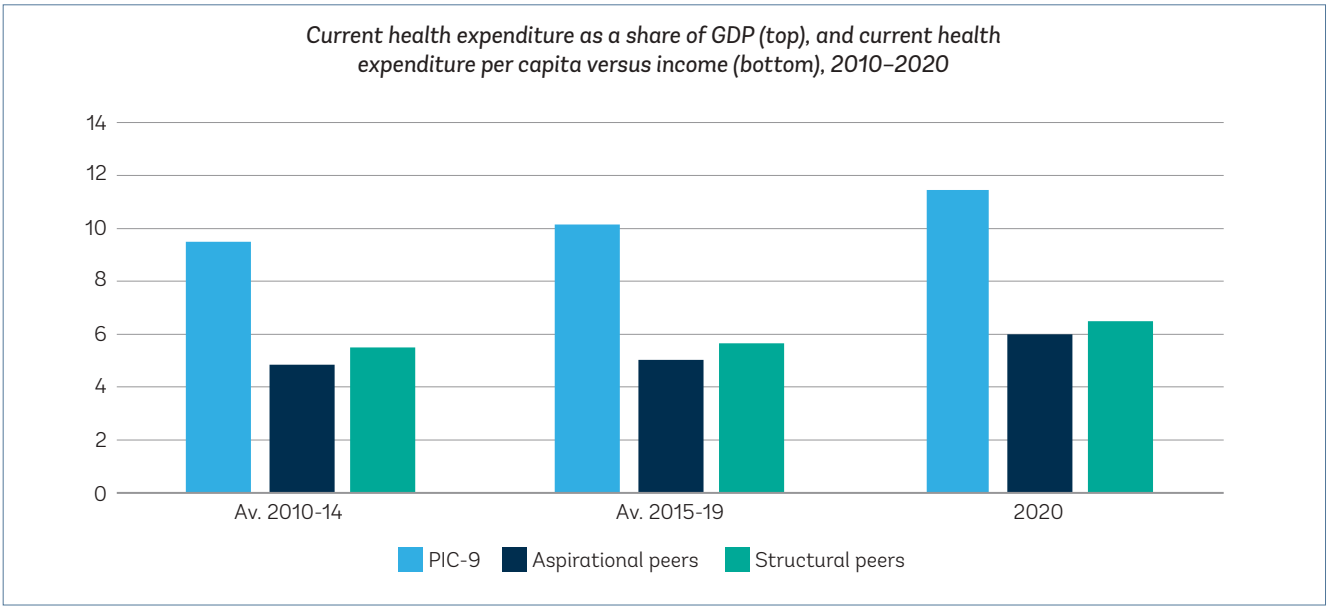
8. Using constant 2020 USD. Latest data available in international databases is 2020, which are used to allow country and global comparison.

Figure 4.2: **Spending per person is increasing faster in most of the PIC-9 compared to peers**

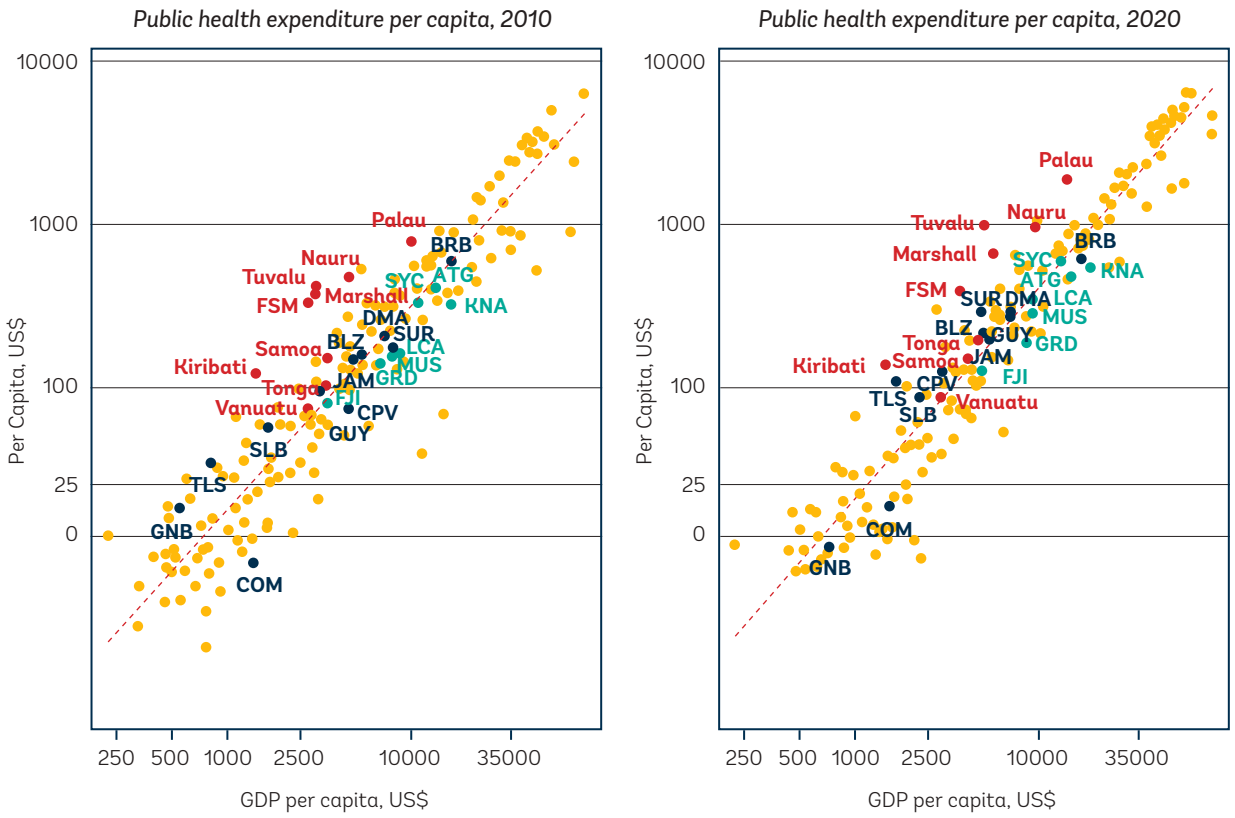


Source: WHO GHED.

Figure 4.3: **Health spending in the PIC-9 is high compared to peers and other countries with similar levels of income**



Current health expenditure as a share of GDP (left), and current health expenditure per capita versus income (right), 2010–2020



Source: WHO, GHED & World Bank, WDI.

CHE is predominantly financed by government revenues including external financing, and, to a lesser extent, by SHI in the three COFA countries (Table 4.1). In 2020, an average of 85 percent of CHE was publicly funded across the PIC-9, up from an average of 83 percent in 2010. The balance was privately funded, including through OOP. Private expenditure on health averaged 15 percent of CHE in 2019, compared to 43 percent in aspirational peers and 37 percent in structural peers. OOP as a share of CHE in the PIC-9 decreased between 2010 and 2020, to average 4.2 percent in 2020, much lower than global levels and compared to peers (35 percent in aspirational peers and 28 percent in structural peers).[9] Reliance on external financing (both public and private) varies greatly between countries (from 15 percent of CHE in Samoa to 73 percent of CHE in FSM in 2020). The composition of health financing among the PICs is unique compared to other countries with similar levels of income, because of their low private health expenditure, very low OOP payment, and high external share of funding. Low OOP payments is a feature that the PIC-9 should actively seek to maintain. International evidence shows that OOP payments contribute to increasing health inequality as they link health care access to ability to pay and can deter or delay utilization of needed health services.

9. Across PIC-9, five countries had OOP rates of 3 percent or less (Kiribati, RMI, FSM, Nauru, and Tuvalu). Nevertheless, financial barriers can occur for households seeking specialty care or in remote areas. Indeed, costs such as travel, accommodation, and forgone wages, are not included in formal OOP estimations and these support costs can be considerable.

Table 4.1: Health Expenditure in the PIC-9 is largely public, with low OOP and relatively high external support

Selected health expenditure indicators in the Pacific and peers

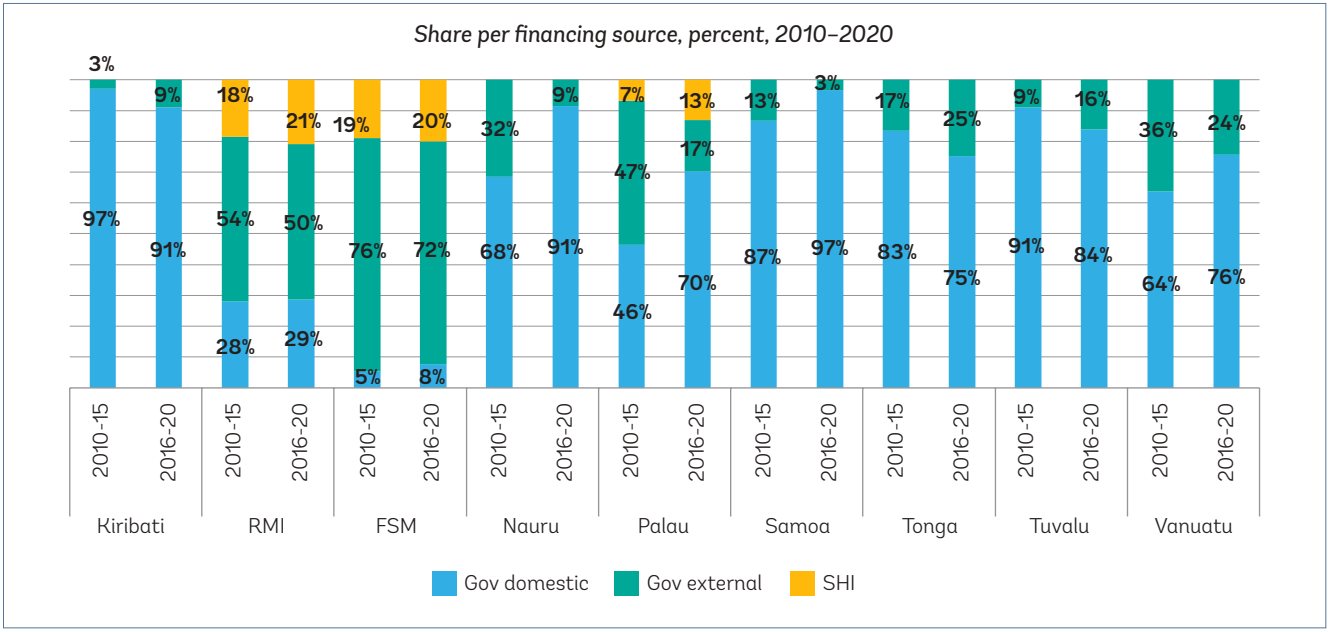
Country	CHE per capita (USD)	CHE as a % of GDP	As % of current health expenditure					Government spending on health (% total government spending)	GDP per capita (USD)
			Public	Private (excl. OOP)	OOP	Domestically funded	Externally funded		
Kiribati	167	12	85	15	0	83	17	9	1,431
RMI	731	13	93	6	1	55	45	16	5,620
FSM	425	12	95	3	2	27	73	14	3,675
Nauru	1,144	12	86	13	1	78	22	8	9,556
Palau	2,640	18	81	8	11	100*	0	21	14,356
Samoa	202	5	75	14	11	85	15	12	3,801
Tonga	248	5	81	14	5	66	34	11	4,665
Tuvalu	1,071	22	93	7	0	86	14	18	4,974
Vanuatu	114	4	77	16	7	76	24	7	2,877
Aspirational peers	721	6	57	8	35	98	2	9	11,462
Structural peers	426	6.5	63	9	28	89	11	10	6,452

Source: WHO, GHED & World Bank, WDI.
Note: Palau domestic share of CHE was 74 percent in 2019 (26 percent externally funded). The average share domestically funded between 2015 and 2019 was 82 percent (18 percent externally funded) so it is likely that 2020 is an error.

The PIC-9 can be split into two groups in terms of how they finance PEH: the three COFA countries with SHI, and the remaining six that are financed solely through government budgets. Governments fund the majority of PEH in the three COFA countries with SHI schemes. During 2016–2020, on average, SHI funded about 20 percent of PEH in FSM and RMI, and 13 percent in Palau, with the remainder financed by the government.[10] In the six other PIC-9, PEH is entirely funded by the government (PEH is equal to government expenditure on health (GEH)). The average share of GEH domestically funded increased from 82 to 86 percent between 2010 and 2020 (excluding COFA countries). In the COFA countries, the domestic share of GEH is smaller due to the considerable grants from the US (Figure 4.4).

10. Palau's Health Care Fund consists of two components, individual Medical Savings Accounts and a pooled universal social health insurance fund known as National Health Insurance. These components are funded through mandatory contributions on earned income and collected in the same manner as contributions to the Social Security Trust Fund. RMI's Social Security Health Fund is managed by the MOH. All health fund contributions are collected by the Marshall Islands Security Administration which is funded through mandatory contributions from workers and their employers. FSM's National Government Employee's Health Insurance Plan is mandatory for FSM national government employees, and optional for employees and employers of public and private entities. It includes the government funded MiCARE and a Medicaid office for COFA migrants (in the US).

Figure 4.4: Public expenditure on health is largely domestic, except for COFA countries that rely on external financing



Note: Government (Gov), social health insurance (SHI).
Source: WHO, GHED.

The PIC-9 are among the most aid-dependent nations globally, with considerable external support to the health sector. Pacific MOHs receive a lot of support from DPs,[11] with a changing landscape due to transitions from some financing sources but also more recently a considerable increase in support for COVID-19 preparedness and response and geopolitical tensions. The three COFA countries are particularly reliant on external financing from the US, but external financing shares have been decreasing slightly between 2010 and 2020 (Figure 4.4). In the other PIC-9, the share of public health sourced externally is much lower and more volatile, due to annual variations in commitment of both on- and off-system DP support.

Although most DPs remain committed to international principals for aid effectiveness (Ogbuoji & Yamey, 2019) it remains difficult for PICs to get clear and timely information on what external funds are 'on plan', 'on budget' and 'on system'.[12] Considerable additional DP support was provided across all PIC-9 for COVID-19 preparedness and response, most of it off-system (and largely off-budget). The lack of transparency raises questions about commitments to increase capacity building in relation to efficient and effective management of funds. In line with international principles for development effectiveness, partners should remain committed to assist client governments to better track, coordinate, and effectively use increased DP funding for health. This includes a recommendation to consolidate compact-related health sector funding into

11. The PIC-9 are supported by ADB, Australian DFAT, JICA, KOICA, New Zealand MFAT, USAID, Japan, China, World Bank, and UN agencies e.g., WHO, UNFPA, UNICEF, UNDP/Global Fund, etc. COFA includes financial assistance commitment by the United States to Palau, FSM, and RMI. Several NGOs and civil society organizations also offer support to health service delivery.
12. 'On plan' means that DP activities are reflected in the Government's annual work plans, 'on budget' means that the DP funding provided for specific purposes is transparent and reflected in the government's budgets, and 'on system' means that where possible, DP funds flow through the government's own financial management information system, meaning that it is not funnelled through donor budgetary or financial system.

a single grant in COFA countries.[13] On-system DP budget execution rates tend to be inconsistent and rather low, often the result of volatile levels of funding, overfunding of specific work units with low absorptive capacity, or challenging financial management arrangements for DP funds. Better coordination between external and domestic financing, and within external financing, is crucial to allow governments to use all available resources more efficiently. As external funds contribute a substantial proportion to non-payroll operating costs, improved certainty and predictability in funding flows can have a considerable impact on the services that are provided across the country, including for outreach and public health programs. There is very little information on off-system budget execution rates (which can also cover both recurrent costs such as in-kind donations of pharmaceuticals and medical supplies, or capital investments).

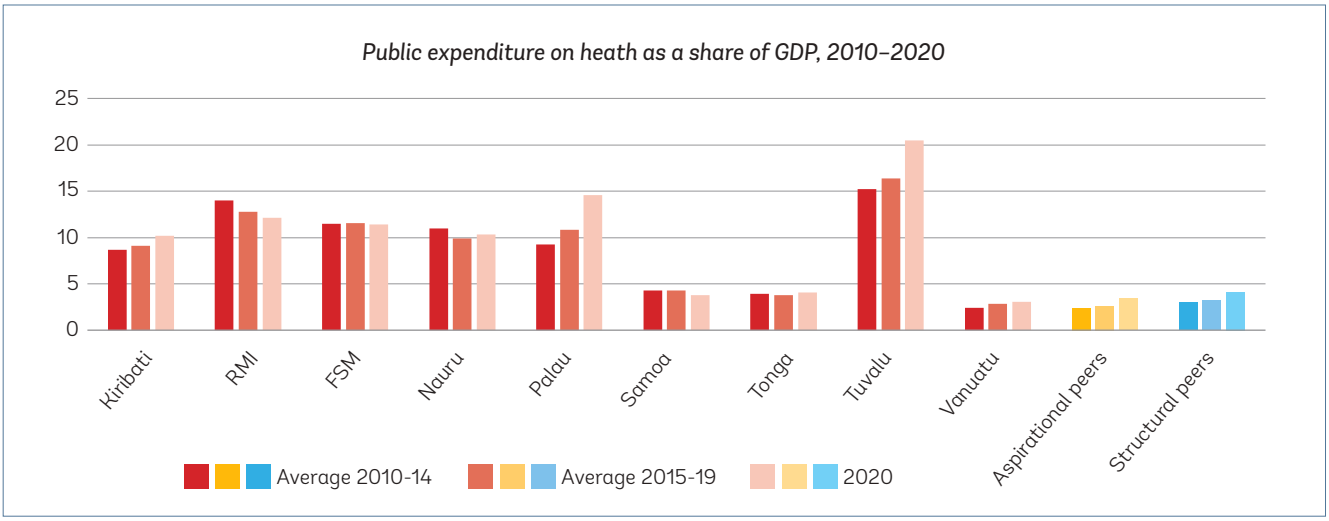
4.4 In terms of public spending, how much are countries spending on health, what are they spending on, and has this changed over time?

This section attempts to shed more light on the levels of public resources for health in PIC-9 compared to aspirational and structural peers, and how PICs are using their public resources.

4.4.1 PIC-9's levels of public expenditure on heath are high and have largely been maintained through the pandemic

Public expenditure on health is high across the PIC-9 compared to aspirational and structural peers, both as a share of GDP (Figure 4.5) and as a share of total government expenditure (Figure 4.6). This high allocation reflects a strong commitment of PIC-9 governments to health. However, it also reflects the considerable support from external partners, and the cost of providing publicly funded services to a geographically dispersed population with limited economies of scale.

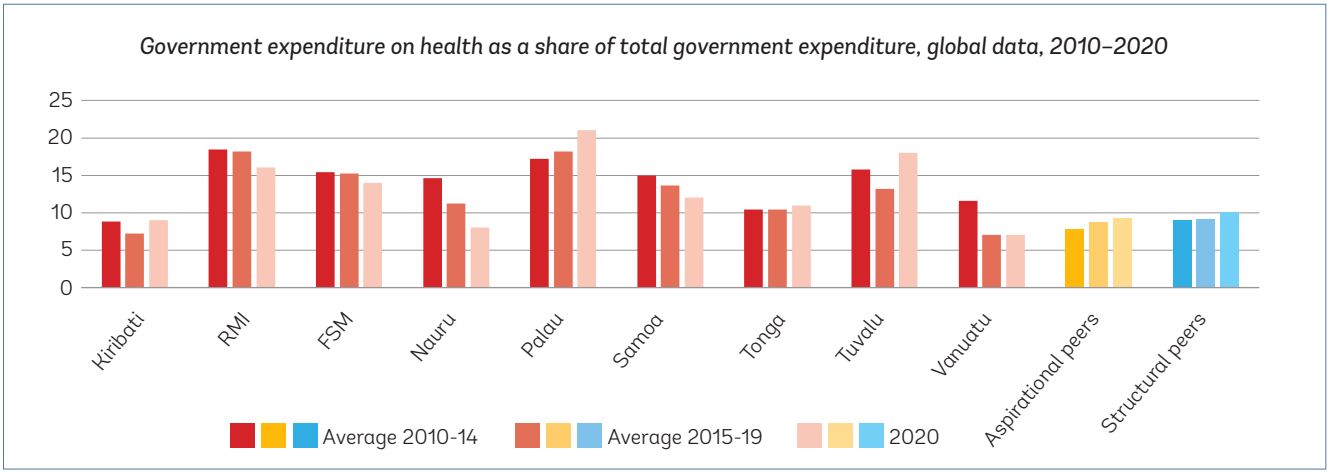
Figure 4.5: Public expenditure on health is high in the PIC-9 compared to peers



Source: WHO GHED.

13. Previous World Bank analysis in the RMI has highlighted that rigidities in the health system are directly related to the highly itemized nature of COFA funding, which leads to inefficiencies and an inability to effectively respond to emerging needs and implement needed reforms. Consolidating external funding into a single block grant could help address these constraints.

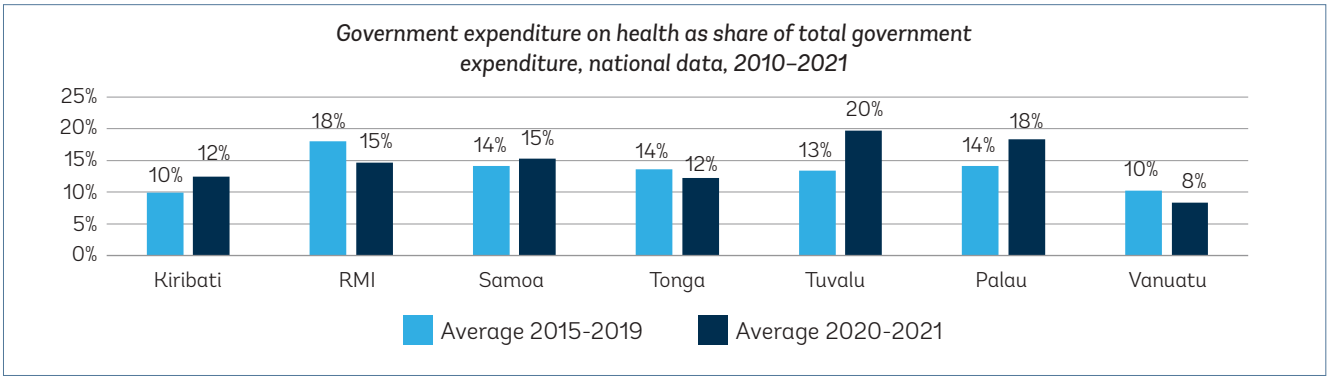
Figure 4.6: **PIC-9 governments allocate a comparatively large share of total expenditure to the health sector**



Note: While Nauru shows a large drop as a share of total government spending in 2020, it has continued to increase in dollar terms (from $A 6 million in 2010, to $A 134 million in 2015 and $A 18 million in 2020).
Source: WHO GHED.

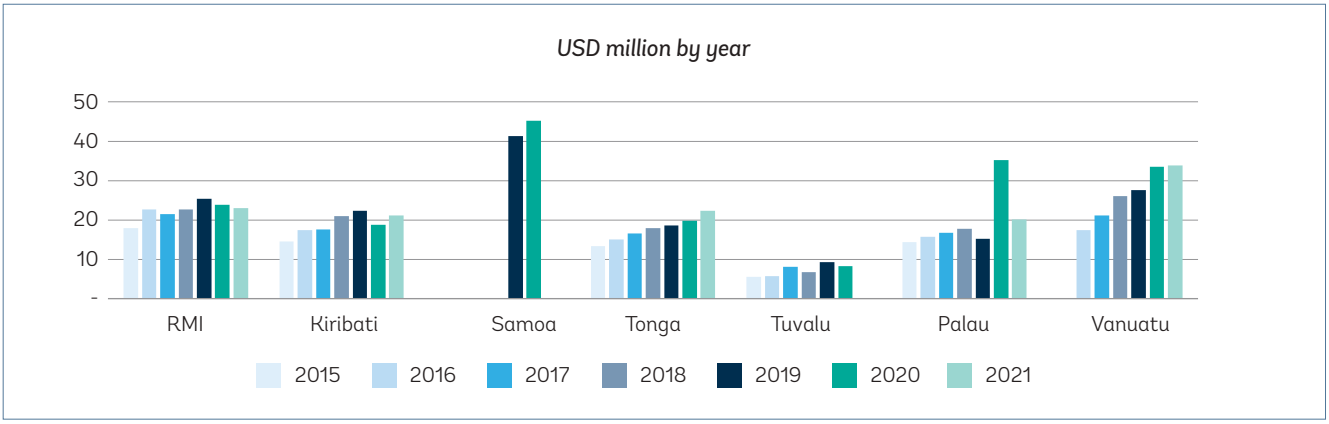
Notwithstanding large COVID-19 stimulus packages, allocations to and expenditure by MOHs have largely been maintained or increased (Box 4.4). The pandemic has led to increased investments in health, both from reprioritization of budgets as well as emergency funding and aid-in-kind contributions from DPs. However, with the pandemic slowly waning and reduced fiscal space, further increases in the health budget are unlikely. Even in PIC-9 countries that have seen a drop in health's share of the budget during the pandemic (Vanuatu, RMI, Tonga) (Figure 4.7), the USD level of health expenditure remained similar or increased (Figure 4.8).

Figure 4.7: **Shares of government expenditure allocated to health have been largely maintained during the pandemic**



Note: National and global data can differ when calculating GEH as a share of total government spending. For example, in Kiribati, the share was 11.6 percent in 2018 according to national data, compared to 7 percent according to global data. In Vanuatu, national data shows 14 percent that year, compared to 8 percent in the Global Health Expenditure Database. Furthermore, the BOOST data limitation flagged in Box 4.3, on missing external funding data, contributes to the differences. This discrepancy is likely due to the difficulties in recording external financing. Global databases often reflect DP disbursements to country rather than expenditure in country, while there are significant gaps in DP contributions in national databases.
Source: Country BOOST Databases (Kiribati, Samoa, Tonga, Tuvalu, RMI), MHMS data (Vanuatu).

Figure 4.8: **Government expenditure on health largely maintained or increased during the pandemic in dollar terms**



Source: Country BOOST Databases; Tuvalu DP database; Vanuatu, Solomon Islands and Kiribati government expenditure data (for 2021).

Box 4.3: PEH data challenges

This chapter uses the most up to date and detailed national data available (as shared by PIC-9 governments). Global database data was used for the Financing Health Services section above and some trend data to facilitate comparison. Difficulties with tracking financial data, particularly from DPs, leads to discrepancies between international databases and country data. International databases often track disbursements from DPs rather than actual in-country expenditure, while national data is often incomplete due to incomplete and fragmented DP contributions.

RMI: BOOST data includes domestic and part of external on-system health expenditure only (no budget). There are nine different funds and grant streams funding the RMI health sector, not all of which are channeled through the national FMIS. This fragmentation means a lot of expenditure data is missing, and the BOOST does not include some of the other external funds, particularly the ones that include expenditure on OMR, pharmaceuticals, and medical supplies.

Kiribati: The BOOST data includes the recurrent budget and expenditure (domestic) and the development expenditure (domestic and on-system external, not the budget), but the substantial off-system expenditure is not well tracked. The 2020 budget was not approved till a few months into the year. Early year expenditures were not allocated to different ministries, and as a result BOOST health expenditure data for 2020 is underestimated.

Samoa: Health budget (domestic only) and expenditure data in the BOOST is complete for 2019 and 2020 only. The National Health Service was merged into the Ministry of Health as of 1 January 2019. While the BOOST data includes some donor funding, it is unclear whether it is sector specific DP support or more general budget support (which is classified as revenue).

Tuvalu: BOOST data includes only the domestic budget and expenditure. A new chart of account (CoA) in 2021 impacted health expenditure analysis. There are likely some overlaps between the Tuvalu Medical Treatment Scheme, and pharmaceutical and staffing expenditure due to the CoA structure. DP on-system contributions are tracked in a separate database (which was available) but are not disaggregated by line item. As a result, DP expenditure is included in the total expenditure analysis (Figure 4.7, Figure 4.8) but not in the line-item analysis (Figure 4.10).

Tonga: BOOST data include recurrent (domestic—including general budget support which is classified as revenue) and development budget and expenditure (DP on system). Off-system DP support data is not available.

Palau: BOOST data includes domestic and some foreign grants expenditure (no budget). It is unclear whether the list of DP sources is complete or not (like in RMI).

Vanuatu: BOOST not available but the team had some national domestic expenditure data. DP contributions are tracked in a separate database and are not disaggregated by line item. As a result, DP expenditure is included in the total expenditure analysis (Figure 4.7, Figure 4.8) but not in the line-item analysis (Figure 4.10).

Note: Health expenditure data for Nauru or FSM was not available, so they are not included in the analysis of national data.

4.4.2 MOHs spend most of their budgets on human resources, OMR, pharmaceuticals, and medical supplies

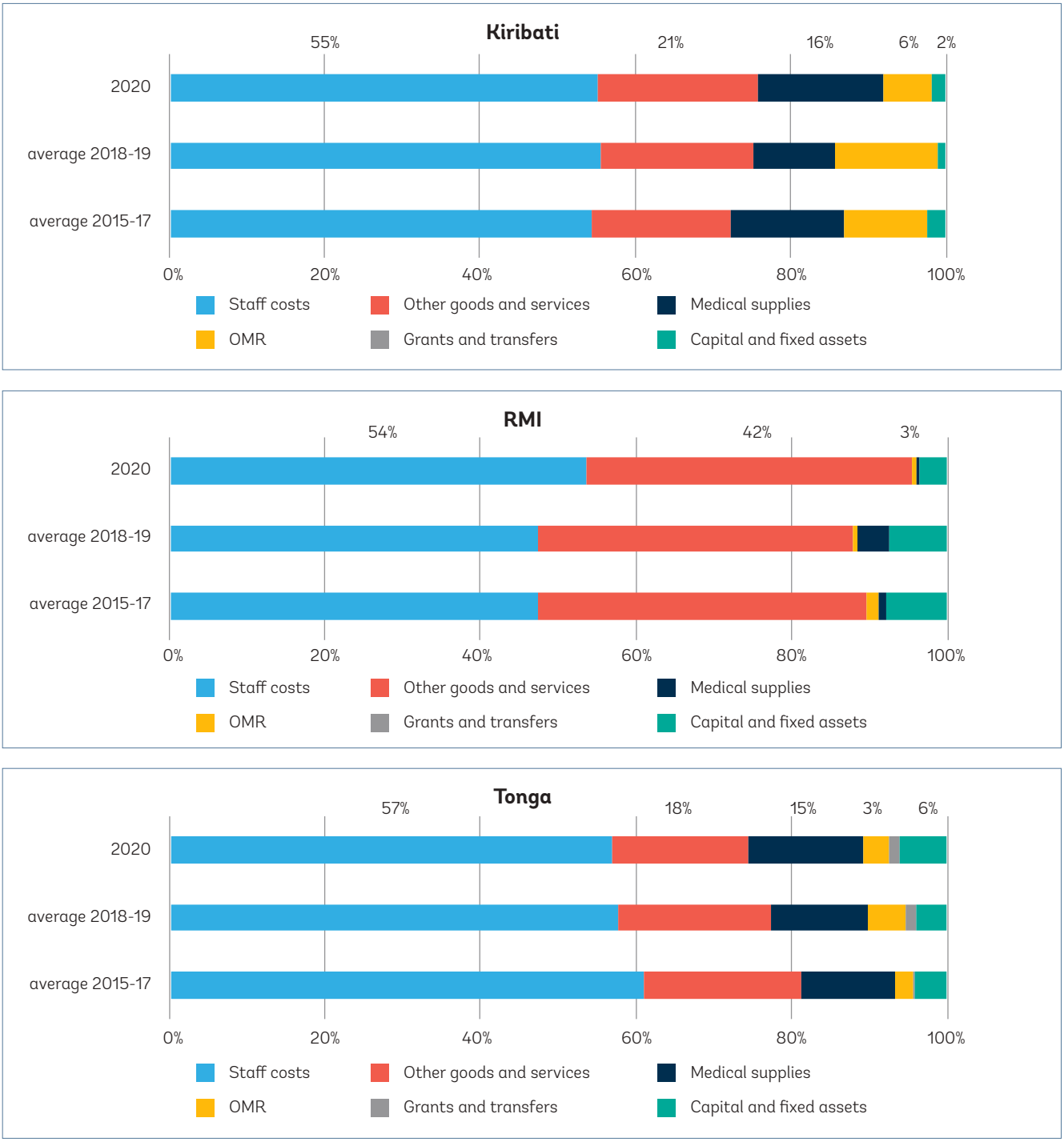
MOHs' largest expenditure categories are HR, followed by OMR or pharmaceutical and medical supplies.[14] There was very little change in the composition of spending between 2015 and 2019 (Figure 4.9). The composition of spending changed slightly in 2020 due to the COVID-19 response and border closures (for example, with increases in spending on pharmaceuticals and medical supplies, or decreases in OMR), but these changes are expected to be temporary. As mentioned

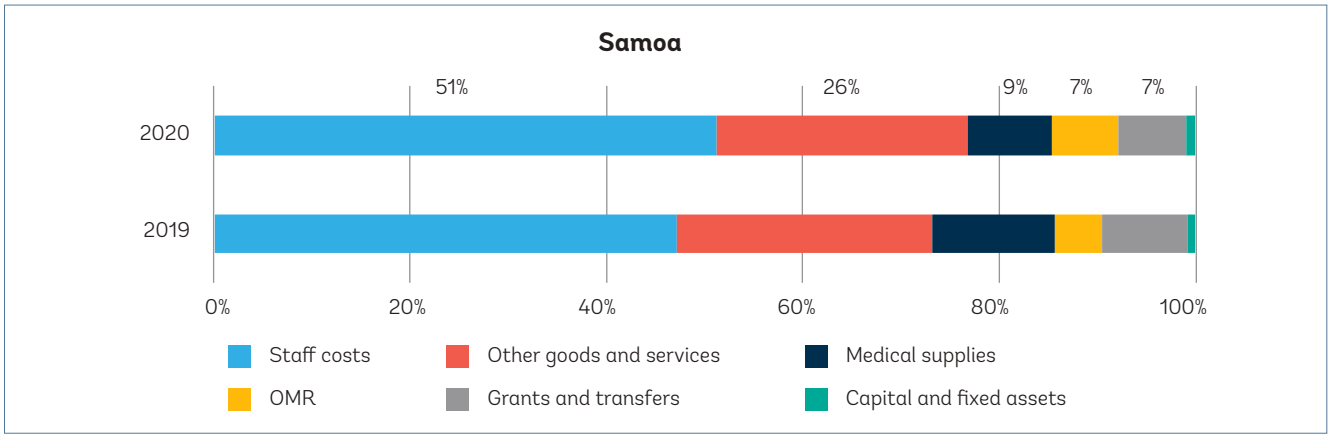
14. As opposed to the combined 'other charges' and considering some of the limitations on data analyzed (RMI BOOST is missing a lot of expenditure on OMR and pharmaceuticals, Vanuatu data does not include OMR because it is funded by DPs off system).

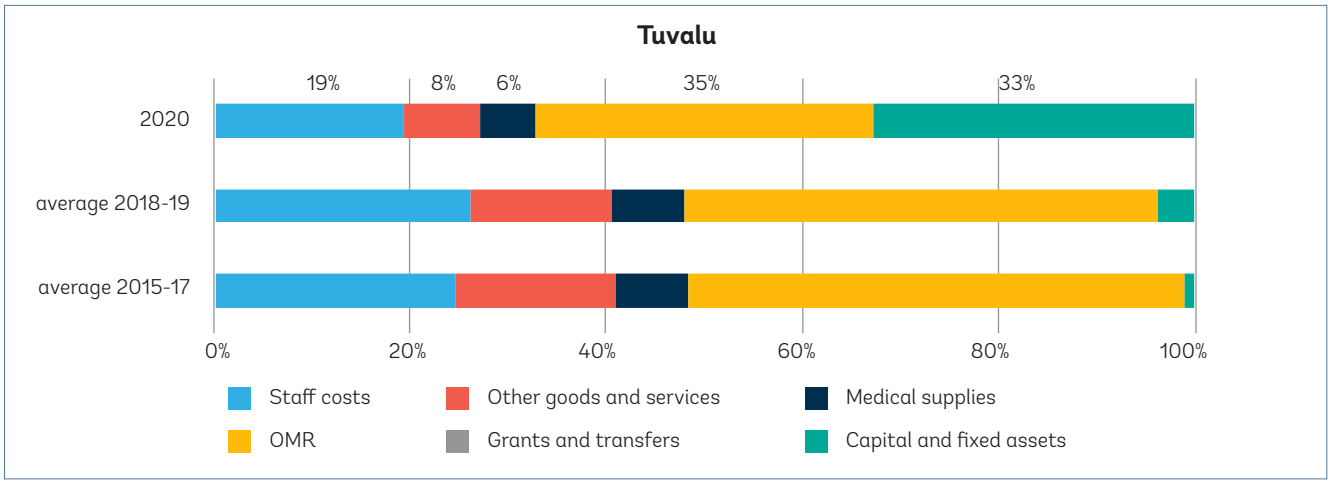
earlier, much of the pandemic support was provided in-kind by DPs, and little information is available on those contributions. More information on spending (domestic and on-system DP) trends for HR, OMR, pharmaceuticals, and medical supplies is provided in the following sections. Domestic health budget execution rates tend to be around 100 percent, or even overspent (with MOHs receiving supplementary budgets from MOFs during the fiscal year). Domestic budgets are often used to cover non-discretionary expenditure such as payroll and staff benefits or utilities, and are almost always fully spent.

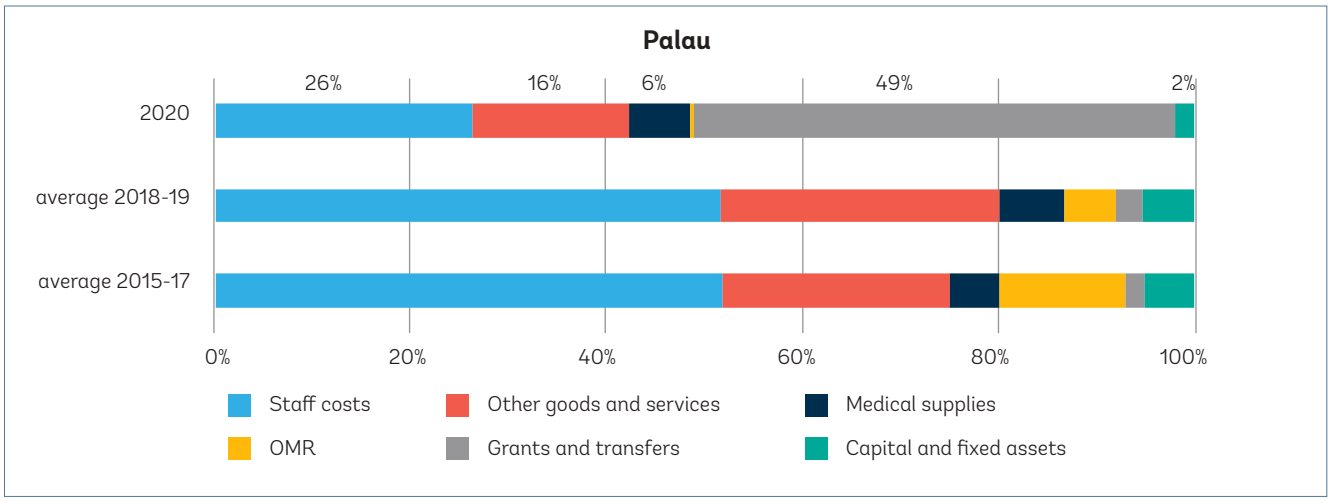
Figure 4.9: Staffing costs, overseas medical referrals, and medical supplies are the biggest expenditure categories for ministries of health

Government expenditure on health by spending categories, 2015–2020









Note: RMI tracks its expenditure on OMR and a considerable amount of the procurement of pharmaceuticals and medical supplies through separate funds. Tuvalu includes only domestic expenditure.
Source: Country BOOST Databases.

Across the PIC-9, most health spending is in hospitals, with only a fraction of spending directed to LLFs. Due to bottleneck in access, capacity, and other health delivery functions, hospitals in the PIC-9 play an important role in providing primary health care which ideally would be delivered in LLFs. National budget data does not easily allow the identification and demarcation of spending on primary or preventative health care versus secondary and tertiary care (referral-level diagnostic and curative care or simply labelled 'curative'). Kiribati spent 57 percent of health resources on its four hospitals in 2017, while the remaining 106 LLFs utilized 12 percent of the total health budget (World Bank, 2017a). That same year, in Tonga, the four hospitals utilized 65 percent of health resources (World Bank, 2020c), while only 7 percent was spent on LLFs and Vanuatu spent 51 percent of domestic health expenditure on six hospitals (World Bank, 2018). Preventive care represented 11 percent of public spending on health and 12 percent of total health spending in 2016 in selected low- and middle-income countries (WHO, 2018)—similar shares to what is spent in LLFs in the examples above. In other countries, budget data sometimes assigns a 'curative' tag to some expenditure, but the tagging can be haphazard and incomplete. For example, 32 percent of domestic expenditure was tagged as being curative care in Tuvalu on average between 2015 and 2021. However, this excluded the vast majority of OMR expenditure, which was mostly recorded under 'Headquarters'. If OMR is added, the share of domestic health expenditure on curative care rises to 85 percent.

Box 4.4: The impact of COVID-19 on health service delivery and outcomes in the PIC-9

While data is limited, there is some evidence that the pandemic has resulted in a deterioration of health service delivery and outcomes across the PIC-9. Comprehensive national data is not yet available, but there are reported deteriorations in the rates of some routine vaccinations, foregone care for NCDs (screening, monitoring, and early treatment of high blood pressure, high blood sugar, diabetic retinopathy etc.), and reduced active case finding for TB. Vanuatu, FSM, RMI, and Kiribati have all reported drops in diphtheria, tetanus, toxoid, and pertussis (DTP3) immunization coverage rates between 2019 and 2021, with Vanuatu the most affected (from 90 in 2019 to 62 in 2021) (WHO immunization portal). In Tonga, the United Nations Population Fund (UNFPA) reported that MOH data indicated an 8.3 percent decrease in post-natal care visits in the first half of 2020. UNFPA also estimates that the potential worst case scenario impact of unmitigated risks to the disruption of sexual reproductive health services could double maternal deaths (from a very low base of 2 per year in Tonga). In RMI, an estimated 6 percentage point increase in unmet need for family planning above the expected 2020 baseline could lead to an increase in unintended pregnancies by 50 percent (197 more unintended pregnancies) (Joint UN Action, 2020).[15]

15. UNFPA produced Socio-Economic Impact Assessments of COVID-19 on Maternal Health and Family Planning in Tonga, Kiribati, Samoa, RMI and Tuvalu. These are not publicly available.

Notwithstanding special allocations in 2020 and 2021 for COVID-19, PEH seem to have been maintained so far, with PIC-9 governments continuing to prioritize health in national budgets. International health expenditure databases are yet to include 2020 and 2021 data, but the limited BOOST data available for 2020 and 2021 show some reductions in spending on OMR, increased spending on pharmaceuticals and medical supplies or 'capital', which is often used in the development budget for one-off special expenditure (even if they are not capital). Spending levels and composition already seem to have returned to pre-pandemic levels. There is also anecdotal evidence of a reduction in domestic travel (for outreach, supervisions, internal referrals) due to lockdown measures. But the largest share of support for COVID-19 spending was provided off-system by DPs, and there is very limited information available on the composition of spending.

The COVID-19 response involved considerable investments in improving health systems, which should be consolidated to strengthen long-term sector capacity. The pandemic exposed pre-existing fault lines in the PIC-9 health systems. These fault lines include supply chain management (SCM) (with increased stockouts, lack of storage facilities); infection prevention and control (including waste management); and the lack of systems and protocols that would allow health systems to quickly respond to a health emergency. The PIC-9 have taken the opportunity to improve on some of these lagging elements (building cold storage facilities, implementing digital vaccine records, improving infection prevention and control). While COVID-19 response activities are strengthening national systems—awareness and technical capacity for detecting and providing early warning for future health emergencies remains limited. There is an opportunity for the PIC-9 to build on the considerable domestic and external investments gained from the pandemic response in terms of cold chain storage, IT systems, laboratory systems, disease surveillance, etc. The recommendations from this PER build on progress made to date and are relevant as health systems emerge and cope with COVID-19 endemicity and prepare for future health shocks.

4.5 What health outcomes are the PIC-9 achieving for the money spent?

Does health spending in the PIC-9 translate into improved health outcomes? While health outcomes are a function of a lot more than health spending, this section looks at whether PIC-9's performance (vis-à-vis peers) on key health outcomes has improved in line with increased per capita spending on health. While the PIC-9 have improved many health outcomes, social determinants of health remain a considerable bottleneck for improvements in some PIC-9 that have poorer educational access, limited landmass, and ongoing difficulties with water and sanitation (Kiribati).

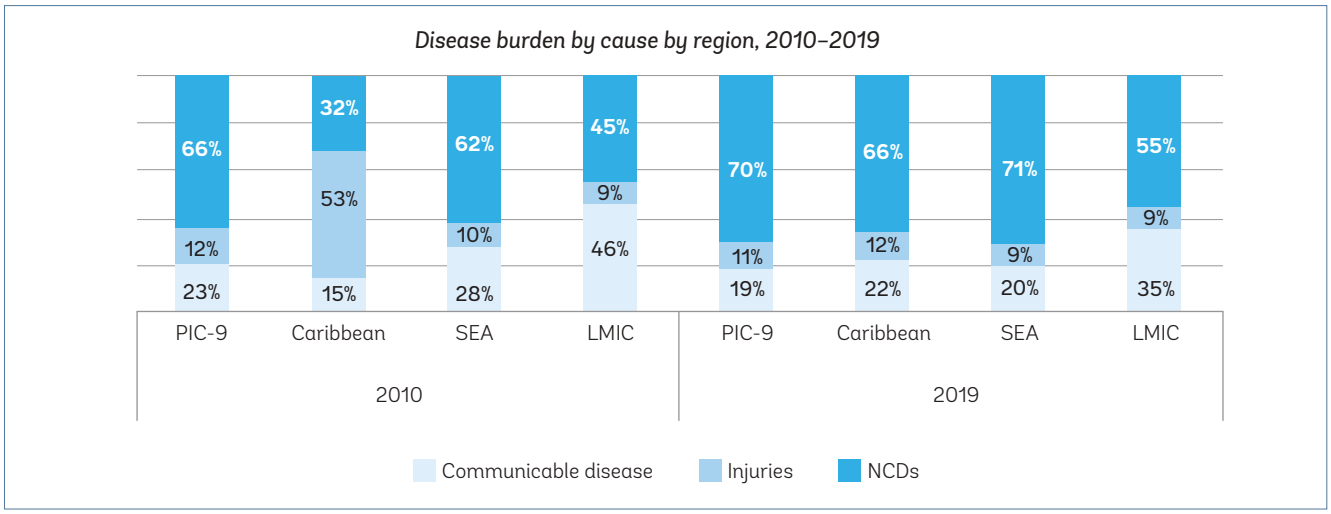
While life expectancy increased in the past two decades, six of the PIC-9 continue to have lower life expectancies than other countries who spend as much on health per capita (Figure 4.10). Except for Samoa, the PIC-9 have lower life expectancy in comparison to aspirational peers. Nauru, Tuvalu, RMI, Palau, and Kiribati have lower life expectancies than structural peers. Females tend to live longer across the PIC-9. The average life expectancy at birth in 2021 is 71 years for females versus 65 years for males.

Figure 4.10: PIC-9 life expectancy is generally low compared to aspirational peers

Source: UN population division 2022 and World Bank WDI.

NCDs make up the major and increasing share of the overall burden of disease (Figure 4.11), straining limited resources and impacting livelihood, economic potential, and quality of life. RMI and Kiribati have seen a tripling of NCD prevalence over the past decade. The average prevalence of diabetes in adults for the PIC-9 (17.9 percent) is higher compared to structural peers (10.2 percent). In addition to Solomon Islands and Lesotho—Kiribati, FSM, and Vanuatu have the highest probability of premature mortality from NCDs (WHO NCD portal).[16] Top risk factors for death or disability combined are all metabolic or behavioral risks that increase NCDs (Table 4.2), with only few variations of the top risk for Kiribati (tobacco use), Nauru (high body-mass index), and Vanuatu (high systolic blood pressure). Non-fatal outcomes of NCDs, such as amputations, are becoming increasingly common (Kiribati and Vanuatu annual health reports),[17] with limited availability of or access to rehabilitation services. NCDs affect women more than men, with NCDs responsible for 73 percent of women's disease burden in 2019, and 68 percent of men's (IHME, 2019). Economic implications of NCDs are high, especially when they affect working age cohorts. NCDs reduce worker productivity and can diminish household savings. Effective primary and secondary prevention have considerable health and financial returns and addressing the high burden of NCDs requires a multi-ministry and multi-sectoral approach. A World Bank report on the economic costs of NCDs in the Pacific estimated that every person in Samoa who avoids dialysis saved the government around US$38,700 per year (Anderson, 2013). According to government figures, the public cost of dialysis in Samoa increased by almost 70 percent between 2011 and 2020. Similarly, every person in Vanuatu who changes their lifestyle through primary prevention and avoids becoming a newly diagnosed Type 2 diabetes patient saves the government a minimum of US$347 per year—more than twice the annual per capita government expenditure on health.

Figure 4.11: NCDs are the largest—and an increasing—share of the disease burden



Note: South-East Asia (SEA).
Source: IHME, 2019.

16. The PIC-9 probability of premature mortality ranges from 25 for Tonga to 51 for Kiribati. RMI, Nauru, Palau and Tuvalu data were not available for comparison. The average for aspirational and structural peer countries was reported at 22.
17. Amputation data is not routinely tracked for PIC-9.

Table 4.2: NCDs are the leading cause of death and disability in the PIC-9

Risk factors that drive the most death and disability combined, 2009–2019

2019 rank	Risk	2009	2019	Change between 2009 and 2019
1	High fasting plasma glucose	17%	21%	24%
2	High body-mass index	16%	19%	19%
3	High systolic blood pressure	16%	18%	12%
4	Tobacco	16%	17%	7%
5	Dietary risks	13%	14%	13%
6	High LDL cholesterol	8%	8%	11%
7	Air pollution	8%	8%	-7%
8	Kidney dysfunction	6%	7%	14%
9	Child and maternal malnutrition	7%	5%	-32%
10	Unsafe sex	1%	2%	56%
11	Alcohol use	2%	2%	0%

Metabolic risk Environmental/occupational risk Behavioral risk

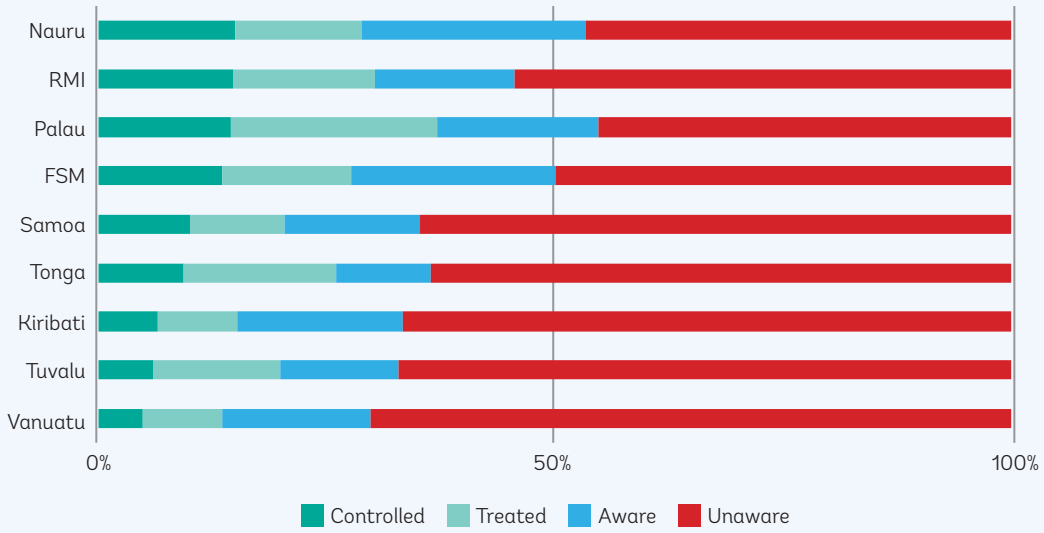
Source: IHME 2019.

Box 4.5: Global lessons – Focus on Ambulatory Care Sensitive Conditions (ACSCs) and hospitalizations

ACSCs are conditions for which access to effective and appropriate primary care could prevent the current admission to hospital for a variety of acute, chronic, and vaccine-preventable conditions. Typical examples of ACSCs are diabetes and hypertension. Hospitalizations for complications related to diabetes and hypertension can often be avoided if these conditions are managed properly at the primary health care level, but many patients are unaware they suffer from hypertension, or do not get treatment (Figure 4.12). Prevalence levels of such conditions can also be potentially reduced via public health interventions such as higher taxes to deter consumption of sugar-sweetened beverages and messaging campaigns to increase physical activity and eat healthier food. In addition to diabetes and hypertension, there are several other conditions that are deemed as ambulatory-care sensitive including iron-deficiency anemia, nutritional deficiencies, TB, kidney infections, and congestive heart failure. Analysis of hospitalizations for ACSCs can help bolster the economic case for investing in primary health care; reduced rates of hospitalizations for ACSCs reduce morbidity and mortality but can reduce cost pressures on health systems given the generally lower unit costs of implementing frontline interventions.

Effective frontline management of ACSCs can also help free scarce hospital beds in resource-constrained settings. Hence, reducing unnecessary hospital admissions is also important from an efficiency perspective. Unnecessary hospitalizations are also bad for patients; admissions can lead to hospital-acquired infections, loss of mobility, and increased frailty from inactivity.

Figure 4.12: Care Cascade in population aged 30 to 79 with hypertension



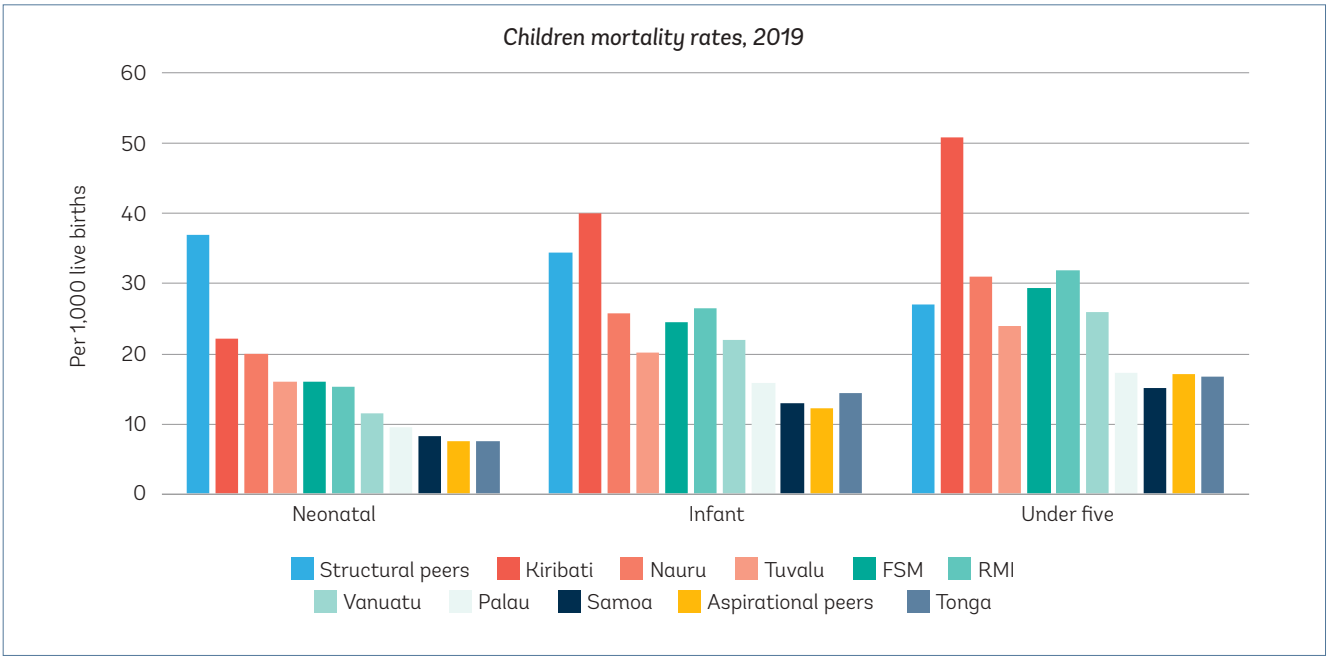
Source: NCD RisC 2021.

The PIC-9 continue to face challenges with communicable diseases, suffering from the classic 'double burden of disease'. The countries hardest hit with TB—Kiribati, RMI, and Tuvalu—show increased incidence rates of 4, 57, and 128 percent, respectively, since 2010. This reflects the broader challenges with crowded housing, poor nutrition, high levels of cigarette smoking, and co-morbidity with diabetes and other NCDs (WHO, 2022). These countries, plus Nauru, are now among the top 50 countries with the highest TB incidence and are much worse than other UMIC. In the decade to 2020, there has also been an emergence of newer infections such as Zika and multi-drug resistant TB, and the region reported periodic outbreaks of dengue fever, typhoid, and leptospirosis in multiple countries (WHO, 2015, 2017). HIV prevalence remains low but is likely underestimated based on high rates of STI in some countries. To combat communicable diseases and reduce avoidable disease burden, the PIC-9 need to strengthen surveillance systems to support the rapid detection of, and response to, emerging and re-emerging infectious diseases.

Reproductive, maternal, newborn, child, adolescent health (RMNCAH), and nutrition outcomes have in general improved in the past decade, but high levels of adolescent fertility and stunting remain a concern in several countries. The PIC-9 reported an average of 25 deaths

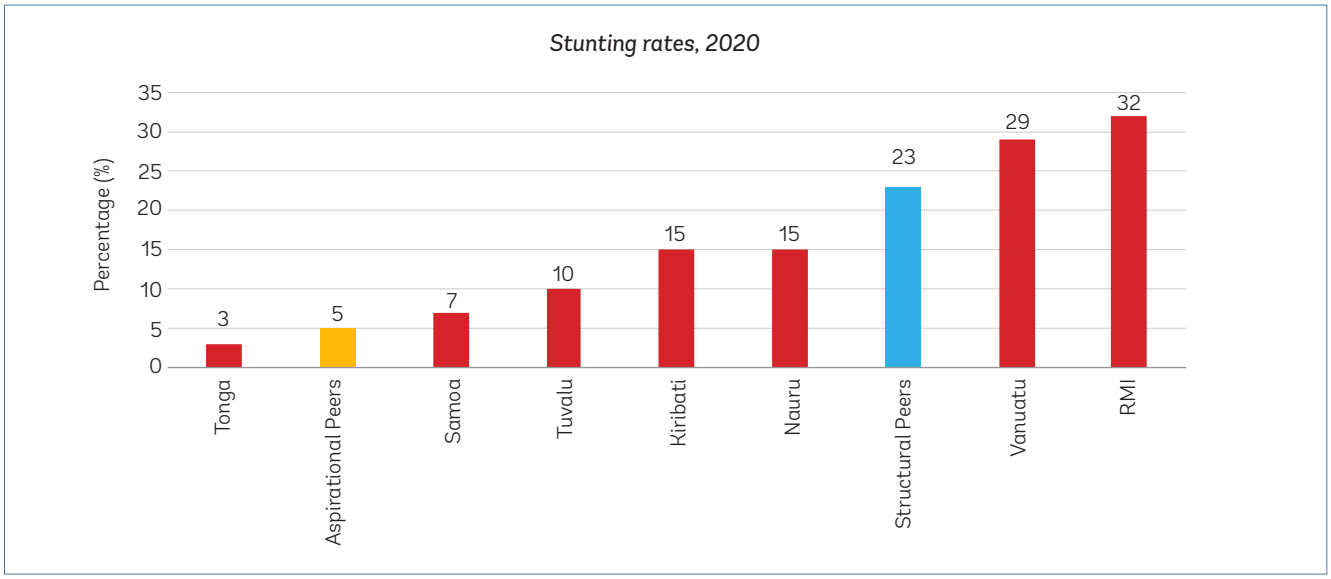
per 1,000 live births for children under 5 years, ranging from 16.6 in Tonga to 51 in Kiribati[18] (Figure 4.14). Kiribati has particularly bad outcomes when it comes to infant and child mortality rates. Medium (1–20 percent) to high (20–30 percent)[19] stunting rates in many PIC-9 are concerning given the strong linkage between child malnutrition and poor child health outcomes—as well as adult health risks, including NCDs, and productivity (Figure 4.13) (Shrimpton & Rokx, 2012; UNICEF, 2021). Programs in health and nutrition aimed at adolescents and young children could promote better growth and development, which would improve human capital and, by extension, increase economic productivity. All of the PIC-9 have reported a reduced or stable maternal death trend in the last decade, but more needs to be done on sexual and reproductive health (SRH). The Pacific has low contraceptive prevalence rates and high unmet needs for family planning. Indicators have been relatively static in the last 20 years (UNFPA, 2018). In Kiribati, Nauru, Samoa, Tonga, and Tuvalu, unmet need for family planning ranges from 50 to 73 percent (WHO & World Bank, 2021). High levels of adolescent childbearing and high unmet need for family planning are some of the drivers of rapid population growth, with gender inequality as both a root cause and a consequence of this. The average fertility rate for the PIC-9 is 3.2 births per woman, higher than aspirational peers (1.8) and structural peers (2.5) (UN Population Division, 2022). These demographic pressures present major challenges on water supply systems, sanitation, solid waste management, environmental and health risks, in addition to the increased risk of instability that comes with large, disempowered youth cohorts. Family planning is regularly cited as one of the most cost-effective global health and development interventions (UNFPA, 2018).[20]

Figure 4.13: Child health and stunting is an unfinished agenda in many of the PIC-9



Notes: Stunting rates were not available for FSM and Palau.
Source: UN IGME 2021, UNICEF 2021.

18. Kiribati has one of the highest rates of neonatal, infant, and child mortality in the Pacific, largely due to considerable challenges with water, sanitation, and hygiene, compounded by problematic rates of pneumonia and related disease.
19. WHO definition https://apps.who.int/nutrition/landscape/help.aspx?menu=0&helpid=391&lang=EN
20. Evidence indicates that for every US$1 invested in sexual reproductive health, there is an economic return of between US$20 and US$120. Other analysis suggests that for every dollar spent to reduce the unmet need for family planning in the Pacific, between US$10–23 would be saved in health and education costs.



Notes: Stunting rates were not available for FSM and Palau.
Source: UN IGME 2021, UNICEF 2021.

Levels of violence against women and girls in PICs are among the highest in the world.[21] Before the pandemic, national research already showed the high rates of gender-based violence (GBV) experienced by women in Tonga (79 percent), Vanuatu (72 percent), Fiji (72 percent), and Solomon Islands (64 percent) (World Bank, 2017c). Emerging data shows a considerable increase in reported violence in countries in the Pacific region during COVID-19 lockdowns and curfews. In Tonga, the Women and Children Crisis Center recorded a 54 percent increase in the number of cases coming in during that period. In Samoa, there was a 150 percent increase in helpline calls in 2020 compared to the same time in 2019 (UN Women, 2020).[22] In Fiji, there was a recorded 606 percent increase in calls to the national Domestic Violence helpline between February and April 2020. The economic costs of lost productivity due to domestic violence conservatively range from 1.2 to 2 percent of GDP. Funding for a minimum package of services that include GBV prevention and response must be part of health systems strengthening efforts as the region emerges from the pandemic and seeks to achieve a green, resilient, and inclusive recovery.

The commitment of PIC governments to health is evident by the ongoing high levels of government spending on the sector. While some outcomes have improved, the pace of improvement has been slower than in peer countries, and there remain some crucial areas where progress has lagged, or reversed, such as in NCDs and child and sexual reproductive health outcomes. Options to improve the quality of spending to progress health outcomes are considered in the next section.

21. UN Women. Global Database on Violence against women https://evaw-global-database.unwomen.org/en
22. In Tonga, the number of people seeking assistance at the women's crisis center during the COVID-19 lockdown increased by 54 percent.

4.6 How could the PIC-9 improve spending efficiency in the health sector?

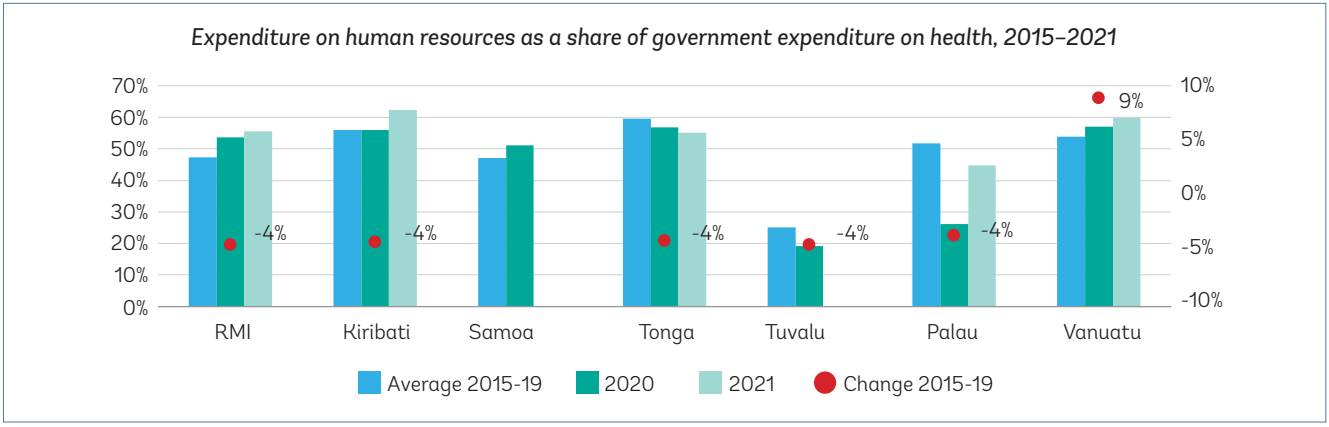
In a context of fiscal consolidation, improvements in health and human capital outcomes will need to come from increased spending efficiency. As outlined in Chapter 1, the PIC-9 are projected to have very limited capacity to finance additional spending over the next 20 years. This means that it is unlikely that governments will be able or willing to increase the share of spending directed to health. External financing in health is already high, and current indications are that it will remain at similar levels as a share of GDP across most countries—although this is uncertain and subject to volatility.[23] Improving health outcomes will thus require efforts to improve the efficiency of sector spending within the existing allocations. Efficiency involves getting the most out of limited resources (more health for the money). This can be done by looking at allocative efficiency (doing the right things: producing the right type of outputs to achieve heath system objectives) and technical efficiency (doing things right: attaining outputs at minimum unit costs). The main efficiency gains will therefore come from targeting: (i) large return for investment areas such as prevention and primary health care, and whole systems improvements that support better governance; and (ii) large expenditure areas such as HR, OMR, pharmaceuticals, medical supplies, and utilities. Improving the quality of expenditure can help attract additional resources for health from MOF and DPs.

4.6.1 Human resources are the largest share of health spending; a more equitable distribution of health workers is key to improve the quality of care

Spending on HR is the largest expenditure category for MOHs (except for Tuvalu) and its share of total health spending has remained relatively stable in recent years (Figure 4.14). Expenditure on HR averaging 50 to 60 percent of government expenditure on health between 2015 and 2019. Tuvalu was the exception, where expenditure on OMR makes up more than half of all expenditures. COVID-19 affected the shares spent on HR in Palau, Tuvalu, and to a lesser extend Kiribati because of expenditure recorded in other categories such as grant and capital (Figure 4.9). Most countries saw a slight fall in the share spent on HR between 2015 and 2019, except for Vanuatu which saw a 9 percent increase over that period. Where data is available, the wage bill largely consists of salaries rather than allowances (80 percent to 93 percent since 2015—and that share has remained quite consistent in that period).

23. Financial support under the COFA is scheduled to expire in 2023 for RMI and FSM, and 2024 for Palau, with the size, scope, and timing of any new agreement highly uncertain. UNFPA is transitioning out of the Pacific by 2030. On the other hand, other DPs such as Gavi are creating options to re-engage (in Kiribati) or engage for the first time (in Vanuatu, Tuvalu, Tonga, Samoa, RMI, and FSM) through a new 'MICs approach' to help with new vaccines introduction.

Figure 4.14: HR is the largest expenditure category in most ministries of health

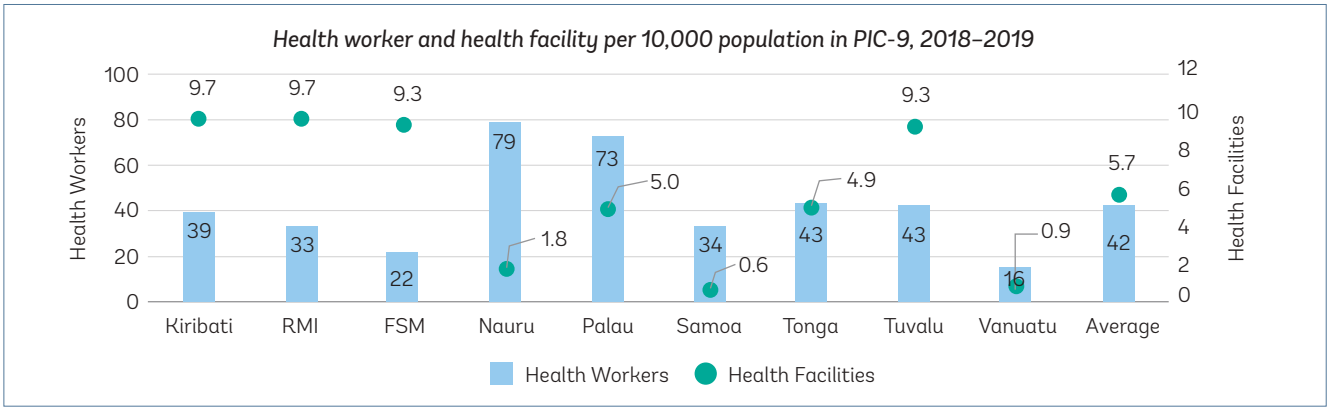


Note: Samoa data only includes 2019 and 2020 (so there is no percentage increase available between 2015 and 2019).
Source: Country BOOST Databases and Vanuatu government expenditure data.

Population dispersion and the small number of health professionals lead to large variations in health service access across the region. Health workers per capita range from 16 staff per 10,000 in Vanuatu, to 79 staff in Nauru (Figure 4.15). Vanuatu stands out as having very few health workers per capita but spending more than other PIC-9 on HR (Figure 4.14, Figure 4.15).[24]The distribution and density of health facilities in relation to the population vary greatly across the PIC-9. For example, with the population spread across only two islands, Samoa has 0.6 health facilities per 10,000 people compared with 9.3–9.7 per 10,000 people in Kiribati, Tuvalu, RMI, and FSM (Figure 4.17). This leads to considerable variation in the number of facilities across countries, and in the number of people served by each facility.[25] This impacts the equity of service provision, the distribution of the workload across health staff, and unit costs. Even when citizens can access local health facilities—low capacity, supply stockouts, and absenteeism often leads to low service quality. Finally, limited access to facilities that provide higher levels of care also contributes to poor outcomes and higher public and private costs (i.e., both for internal referrals and OOP expenses). While more facilities may be needed to reach patients in those countries with wide geographic distribution, the number, type, and location of health facilities are often political decisions. Ideally, these high-cost decisions need to be informed by fresh thinking on appropriate service delivery models that make the best use of available resources, including emerging digital tools and telehealth opportunities.

24. This is in line with findings from the Vanuatu PER (World Bank, 2022d).
25. Kiribati, Tonga, and Vanuatu Health Facility Costing Studies (notes available from World Bank Pacific health team).

Figure 4.15: Population dispersion and the small number of health professionals lead to large variations in health service access across the region



Source: Health workforce data (WHO Global Health Observatory). For Kiribati and Vanuatu, Ministry of Health Annual Reports. Health facility data—WHO Country Cooperation Strategy. For Kiribati, Nauru, and Vanuatu—Ministry of Health/ Government. For Palau—Pacific Islands Health Officers Association.

A more equitable distribution of (and therefore access to) skilled health workers remains a major challenge for improving UHC across the PIC-9.[26] Most senior medical staff are stationed in larger hospitals and urban centers, with health care workers in LLFs often working in isolation with limited resources, limited support from the center, and limited opportunities for in-service training. In some countries, high turnover in leadership positions and absenteeism are also challenging service delivery.[27] Skill mix (including both health workers and support staff) and distribution of health staff needs to be responsive to workload and to reflect RDPs/PEHS. Continuous upgrading of skills and knowledge is needed to ensure that health care staff can provide evidence-based, high-quality health care.

Increased use of digital tools could facilitate more efficient use of limited senior/specialized workforce skills, helping to achieve more equitable access and higher quality health services. As connectivity continues to improve across the PIC-9, there are increasing opportunities to provide a broad range of quality health promotion, prevention, and treatment services closer to people's homes, using digital tools for telehealth diagnostic and treatment advice to local health providers in remote facilities. Improving information and communication technology also provides scope for more regular supportive supervision of staff based in outer islands, as well as increasingly better access to online professional development initiatives.

26. For example, the Kiribati Health Workforce Strategic Plan 2019–2028 noted a considerable imbalance between staffing numbers and workloads in lower-level facilities compared with the national referral hospital.

27. For example, in 2019, Vanuatu temporarily closed 51 government owned health facilities due to either staff shortages or service interruptions resulting from natural disasters (Vanuatu 2019 Annual Health Report).

4.6.2 Overseas medical referral schemes are essential, but costs vary, can be inflated, and access is unequal

The limited capacity of health systems in the PIC-9 means that medical diagnostics and treatment for some health conditions are acquired outside the country. The PIC-9 have a three-pronged approach to specialist clinical services. The first approach is to offer these services in country, but this has limitations due to the small size of the countries which limits economies of scale, HR capacity, and the necessary caseload to build quality safe clinical capacity in country. The second approach is to import specialized clinical services into the country through VSMT. The third approach is to offer services to patients overseas through OMR schemes (Box 4.6). Given the limitation to local health services, access to OMR (and VSMT) remains crucial for supporting the PIC-9's efforts towards UHC.

Box 4.6: Different OMR schemes across the PIC-9

- Supported by the US (FSM, RMI and Palau)
- Free association with New Zealand (Samoa)
- Funded by government revenue (Kiribati, Tonga, and Nauru)
- Bilateral agreements (Nauru with Australia and Papua New Guinea; Kiribati, Tonga, Tuvalu, and Vanuatu with the New Zealand Medical Treatment Scheme; Nauru, Kiribati, Palau, RMI, and Tuvalu with Taiwan)
- Supported by charitable organizations and faith-based organizations (RMI, Tonga, and Tuvalu)

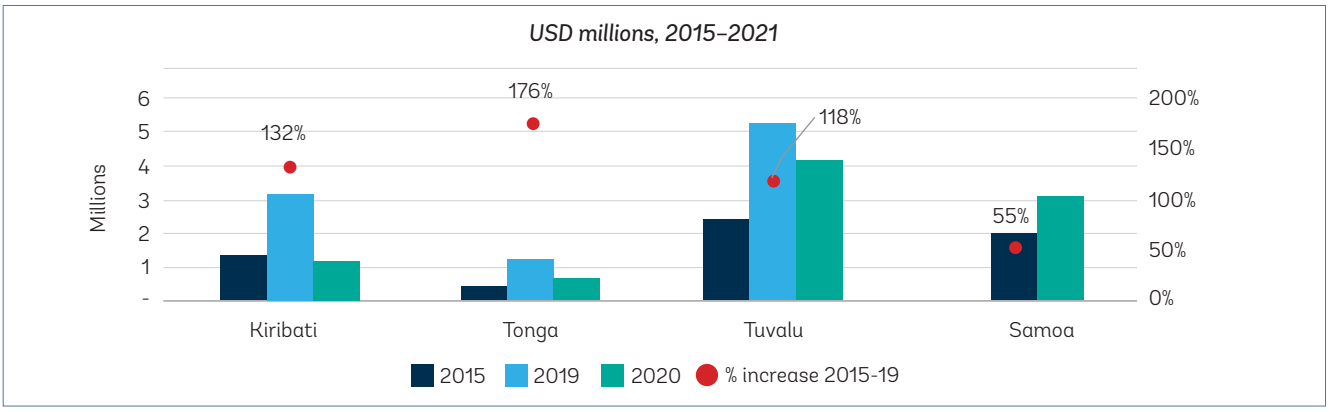
Financing of OMR schemes

Financing of OMR schemes across the PIC-9 is complex and comes from various sources, including general domestic revenue, associated high-income governments (e.g., US for COFA, New Zealand for New Zealand Medical Treatment Scheme), bilateral donors, and charitable organizations. In some cases, private insurance, co-payment, or OOP payments finance overseas referrals. In both Tonga and Vanuatu, patients or communities are expected to pay some of the referral costs due to insufficient budgets allocated to local referrals. DPs often pay for treatment-related costs while the government funds travel and logistics. In the North Pacific (FSM, Palau, and RMI) OMR can also be funded under a national health insurance scheme where a portion of the funds are separately earmarked specifically for overseas referrals. However, this portion of funds for OMR are always insufficient and often require annual government subsidy for continuous operation.

PIC-9 data on OMR schemes is poorly tracked. Few of the PIC-9 have well-established, well-maintained data systems to record both OMR (and VSMT) patient and expenditure data. Often the national data is inconsistent, incomplete, not regularly updated and therefore not readily available across countries. This makes detailed analysis of OMR expenditures and patient outcomes difficult. In addition, rarely is the data used to inform policies and decisions governing the patient referral mechanisms within the country, to improve the quality and equity of the provision of clinical services. Data on quality of care received by OMR patients is also not readily available, because it is not systematically collected, tracked, and shared by PICs.

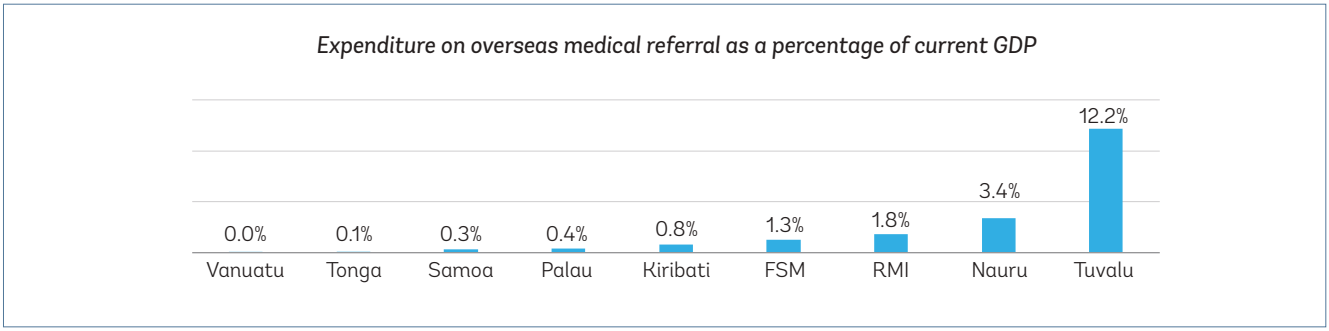
Up until the pandemic-imposed border closures, expenditures on OMR were high and increasing in many of the PIC-9, consequently consuming a considerable amount of countries' health budget. In 2019, Tuvalu spent more than half of its total health expenditure on OMR, while Kiribati spent 14 percent (Kiribati BOOST) of health expenditure on OMR, and Samoa, Tonga, and Palau between 5 and 7 percent (Figure 4.9). Tonga, Tuvalu, and Kiribati had more than doubled their expenditure on OMR between 2015 and 2019, until the border closure in 2020 substantially curtailed expenditure on OMR that year. Tonga expenditure on OMR in 2021 had already returned to 2019 levels. Spending on OMR as a percentage of GDP was 12 percent in 2017 in Tuvalu—the highest among the PIC-9. In 2013, Tuvalu and RMI were among the highest spenders on OMR per capita among Small Islands Development States (with the Maldives and Seychelles) (Suzana et al., 2018). The second highest was Nauru, at 3.4 percent of GDP (Figure 4.17). With international travel resuming over 2022, it is anticipated that overseas patient referrals among many of the PIC-9 will also increase. Expenditure on OMR is projected to continue increasing over the medium to long term due to an aging population and the rising incidence of NCDs.

Figure 4.16: Expenditure on Overseas Medical Referrals was high and increasing pre-pandemic



Note: Tonga data is for 2016 rather than 2015.
Source: Country BOOST databases and author's calculations.

Figure 4.17: **Tuvalu, Nauru, and RMI are the highest spenders on overseas medical referrals**

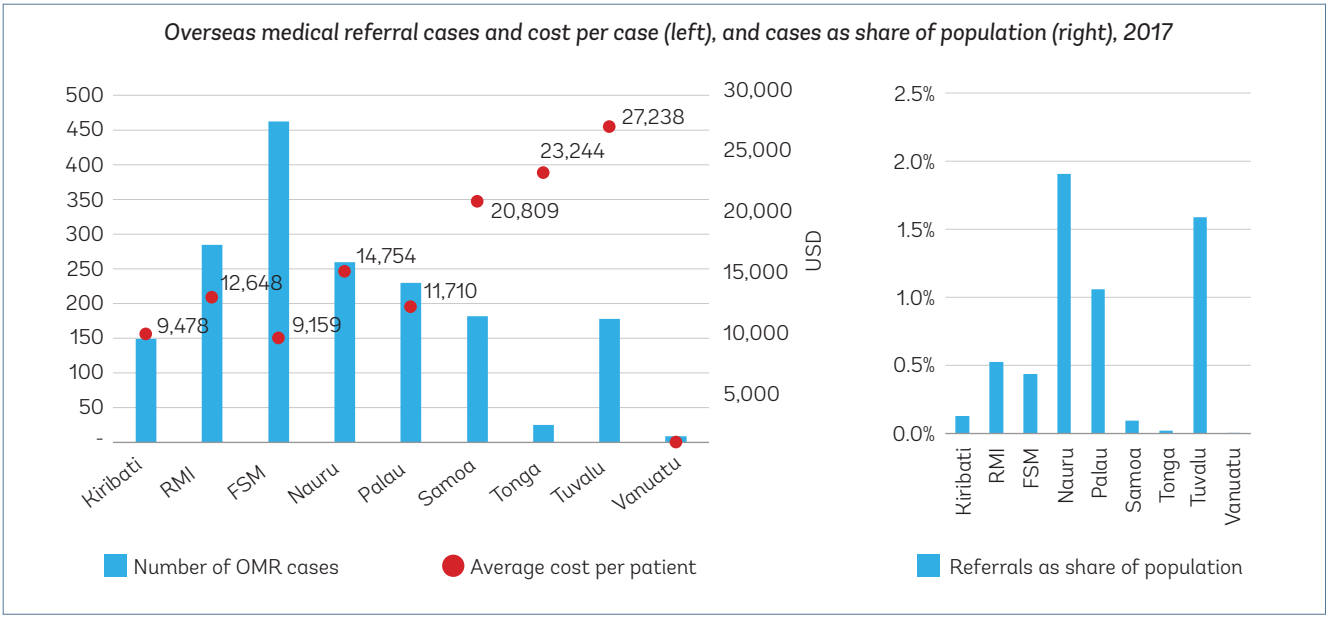


Source: Boudville et al., 2020.

Cost per OMR patient varies across the PIC-9 suggesting potential for efficiency gains. While this cost will be dependent on various factors (e.g., type of treatment required, mode and length of travel required, type of referral facility the patient is referred to, number of days of treatment required, country destination to which the patient is being referred, etc.) it is possible that some PICs are paying much higher prices for similar services from the same providers. A 2019 WHO study found that some of the PIC-9 were aware that prices charged for OMR were higher than what they should be (Nossal Institute, SPC, WHO, 2019). This was particularly true for those PICs that engage the services of an agent or 'middle-men' for negotiations with health care providers, with one country flagging they were paying 40 percent more for OMR patients. Some PICs actively scan the market to locate facilities that are better able to provide tthe needed treatment and at reasonable prices, whilst others will simply choose a provider they have used previously—regardless of costs nor whether the provider is best suited for providing the required treatment. In the case of some PICs like FSM, a list of pre-selected providers who have been certified by the Board of Directors of the FSM insurance scheme are eligible as sites for patient referral. The list is reviewed annually, and providers removed or added based on the board's assessment against health provider criteria. As a result, FSM has one of the highest expenditures on OMR, but one of the lowest average costs per patient. On the other hand, Tonga, Tuvalu, and Vanuatu have the highest average cost per patient in 2017 (Figure 4.18).

Some PICs manage to contain OMR costs to some extent by including certain conditions in their OMR policies. For example, some policies: (i) limit OMR patients to only those that are below a certain age (e.g., patient not older than 60); (ii) limit persons to be eligible for the OMR scheme only once; (iii) only accept patients under the scheme for which the said treatment is guaranteed to restore the patient to full health; and (iv) include some mandatory co-financing obligations, e.g. a patient must organize and fund their own passports rather than getting the OMR scheme to pay for this. In Fiji, an OMR applicant needs to provide several details that assess the economic situation of the applicant. Based on this economic assessment, a co-financing amount may need to be met by the patient. This allows the limited OMR budget to stretch and cover more patients. It ensures that those who can pay, contribute to the costs, and those that cannot, receive full funding. For countries that do not currently have the eligibility limitations listed above, including these could improve efficiency and equity. The different ways PICs manage their patient referral schemes, and varying OMR expenditure and per patient costs, suggest there is an opportunity for knowledge sharing and cross learning that would benefit the region and could lead to efficiency gains.

Figure 4.18: Cost per patient covers a small population, and varies across PIC-9, suggesting potential for efficiency



Note: (i) For most countries this includes only the cost of OMR to the government, not the cost of treatment (or other costs) borne by development partners or the patient recipient country. Vanuatu's OMR cost in 2017 was US$307,530 (US$34,170 per patient—which would make it the most expensive cost per patient) but was entirely donor funded so not included in this graph. Cost per patient in Tuvalu and Vanuatu includes treatment costs. (ii) Data for this graph is for 2017, the latest year available across countries, and was collected by way of survey by the team who conducted this analysis/wrote the report. Data may vary from figures tracked in country (where available) due to overall poor tracking of both financial and OMR data in many of the PIC-9.
Source: Nossal Institute, SPC, WHO, 2019.

High OMR expenditure only benefits a very small number of people. This raises issues about how equitable the use of these resources is, but it also reinforces the need to have OMR policies and procedures that are transparent and equitable. OMR typically benefits less than 2 percent of the respective country's population (Figure 4.18). For example, in 2017, while Tuvalu spent 51 percent of its total health budget on OMR, this covered only 1.6 percent of its population. While in theory all countries' OMR schemes are available to the whole population and are determined by agreed selection criteria, it is not possible to assess to what extent these criteria are implemented equitably. Decision making on OMR varies between countries and is often affected by political influence or made on a case-by-case basis at the discretion of the OMR committee or Senior Health Officials (even ministers). Equitable OMR also assumes an efficient local referral system for those living outside of main urban centers, but this remains a challenge for most of the PIC-9.

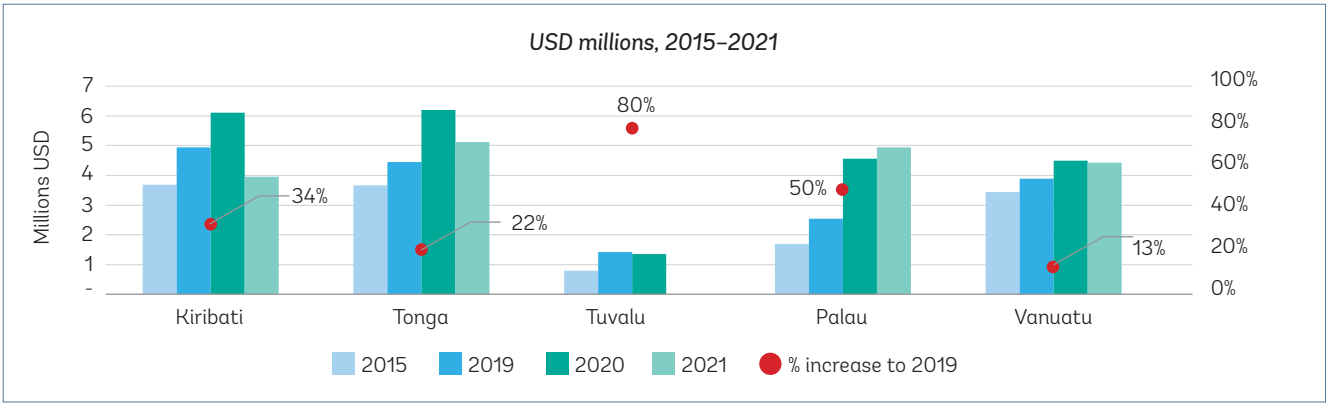
4.6.3 Improvements in supply chain management (SCM) of medical supplies can reduce costs, avoid stockouts, and improve health results

Supply chains for pharmaceuticals and medical supplies in the PIC-9 are typically managed by a central authority (e.g., National Medical Stores, NMS), with decentralized distribution through second level medical stores and then onto LLFs. In most of the PIC-9,[28] primary health care facilities rarely source commodities from outside this centralized hierarchy. Countries typically conduct annual tenders for both medicines and consumables (sometimes broken up into smaller tenders based on item categorization) and then procure additional supplies through 'supplementary' tenders or emergency orders. Some procurement is done through DP run pre-financing tools such as the UNICEF Vaccine Independent Initiative. In addition to the national procurement process, additional pharmaceuticals and medical supplies are also purchased off-system by DPs supporting public health programs, and often managed outside of the NMS and national supply chain. There is very little visibility of these expenditures, which are expected to be considerable. For example, COVID-19 vaccines were largely donated through bilateral partners or the COVAX facility.

Expenditure on pharmaceuticals and medical supplies is the second or third largest spending category for MOHs, ranging from 7 percent of total MOH expenditure in Tuvalu to 13 percent in Samoa in 2019 (Figure 4.9).[29] Spending on pharmaceuticals and medical supplies usually comes out of the MOH budget.[30] Levels and percentage share of expenditure on pharmaceuticals and medical supplies increased in 2020 (Figure 4.19) due to COVID-19 (in Tonga for example, expenditure rose by 40 percent between 2019 and 2020, and increased from 11 percent to 15 percent of MOH expenditure). Expenditure per capita in PIC-9 is estimated at around US$7 per year, compared for example to US$614 in Australia.[31] In 2019, expenditure per capita was around US$6 in Vanuatu, US$20 in Kiribati and Tonga, US$60 in Tuvalu and US$70 in Palau. A 2015 World Bank Pharmacy Price Comparison showed considerable unit price variation among a sample of six PIC over a nine-item basket of goods.

28. In RMI, pharmaceutical procurement for hospitals and dispensaries not centralized, creating some inefficiencies.
29. RMI excluded since data not available.
30. While scarce or altogether absent in some of the smaller countries (e.g., Kiribati, Tuvalu, Nauru), private pharmacies are also emerging as a source of medicines and pharmaceutical supplies. Private pharmacies tend to be poorly regulated or controlled, and there is anecdotal evidence of stock leakages between the publicly funded pharmaceutical and medical supplies and the private pharmacies. Stockouts and poorly managed SCM in primary health care facilities are also an incentive for patients to turn to private pharmacies.
31. Estimates from Beyond Essential Systems.

Figure 4.19: **Expenditure on pharmaceuticals and medical supplies is high and increasing**



Note: Vanuatu is in US$100 million to fit in the graph.
Source: Country BOOST database.

Options for pooled procurement have been raised in multiple forums over many years in the Pacific,[32] but uptake has been limited to specific areas such as vaccines and other select commodities. According to the Organization of Eastern Caribbean States Pharmaceutical Procurement Services (PPS—implemented in 1986), the institution that procures medicine and allied health equipment on behalf of member states, the PPS has been able to reduce the market costs of medicines in the region by 20 percent, and collectively saving OECS governments an average of US$4 million annually (OECS, 2017). On the other hand, World Bank's review of potential savings from pooled procurement in the Pacific found that pharmaceuticals were deemed less suitable for savings.[33] Attempts to take forward pooled procurement in the Pacific have not gained support as envisaged. Political and technical constraints, and in some cases corruption, are all factors. There are also long-standing concerns that regional procurement would undermine state sovereignty to deliver health services. However, the experience over the pandemic with substantial pooled procurements completed, may make at least some of the smaller countries more open to this option.

SCM of pharmaceuticals and medical supplies in the Pacific was reinforced as an area requiring more attention during the pandemic. This is not just related to pandemic preparedness and response activities but also for a wider range of supplies important for providing quality health services to progress commitments to UHC. Beyond the substantial pandemic related disruptions to shipping and flight services (anecdotal reports show that SCM in the region has gone sharply backwards), there are preexisting SCM challenges with quantification and procurement, storage and distribution, and monitoring/oversight of quality use of supplies—including antimicrobial resistance initiatives. For example, in 2019, Tonga was the only country that reported no stockouts of essential NCD medications while Kiribati, Nauru, and Samoa reported stockouts in less than half of the health facilities in the preceding year (WHO & WPRO, 2019). That same year, five countries did not have a stockout monitoring system in place. In 2017, Kiribati spent double the estimated needed amount for domestic referrals, in some cases because low-cost

32. Discussed at the inaugural Pacific Health Ministers Meeting in Fiji in 1995, it has been raised regularly at subsequent meetings. It was also highlighted as an area for cooperation in the Pacific Plan.

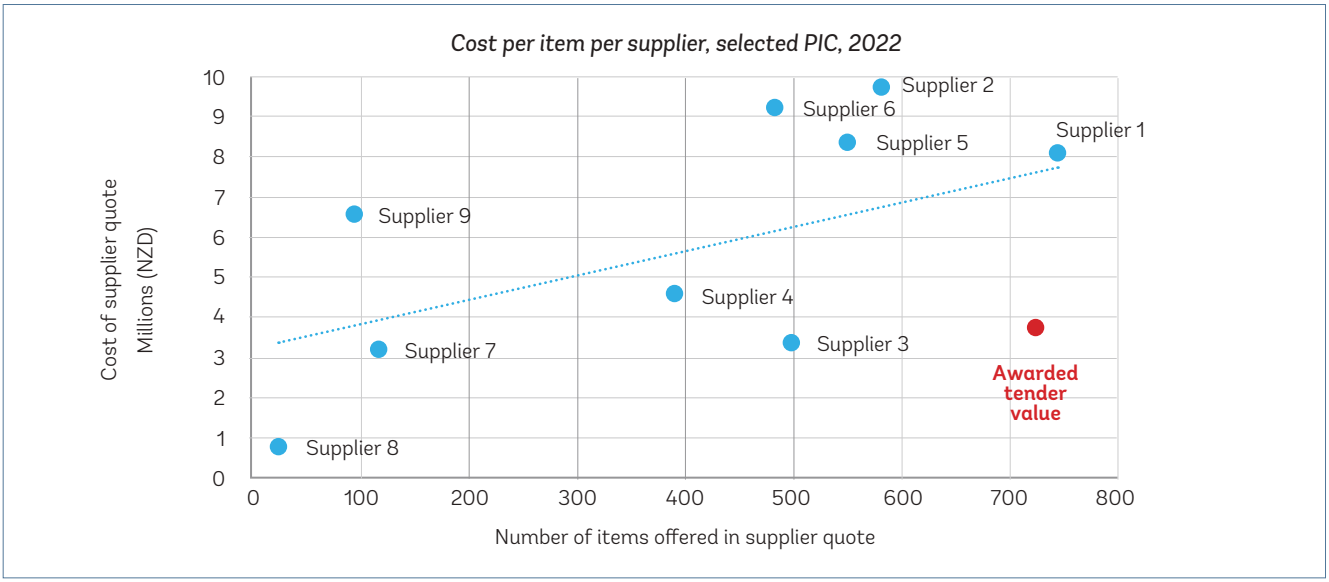
33. In part due to the large number of individual items that make it difficult to devise an efficient strategy in a multi-country context. It was deemed more important for countries to strengthen national SCM systems rather than investigate pooled procurement. Other national large expenditure categories such as fuel, vehicles and ICT led to much higher potential savings and deemed more feasible (World Bank, 2017b).

medicine was not available in outer islands (World Bank, 2017a). On the other hand, the pandemic has highlighted the crucial importance of a well-functioning, efficient SCM system, triggering investments in that space from some governments and DPs.

Improvements in procurement practices will not only increase medicine availability but will also create efficiency gains. Emergency procurement due to poor quantifications and lack of stock management are associated with higher prices (and shipping costs) for pharmaceuticals and medical supplies. An analysis conducted[34] in a PIC over a two-year period (2018 to 2019) showed that the country paid just under US$500,000 more for the top 10 highest expenditure pharmaceuticals and consumables (excluding oxygen and vaccines) than it would have paid if they were always able to buy at the lowest price possible (Table 4.3), which would have saved them 30 percent on those 10 items only. While we cannot assume that the highest prices paid is always an emergency procurement, we can safely assume that the lower price is achieved during the annual tender price. Items with the biggest discrepancies were the bulkier or heavier products (which are extremely expensive to air freight). Another exercise conducted in 2022[35] highlighted that itemizing tenders (i.e., conducting line-by-line procurement and choosing potentially different suppliers for different items, rather than one supplier for all items) could save between 40 and 50 percent of the annual tender amount (Figure 4.20). In this example, choosing an individual supplier for the whole bid would have either increased prices substantially, or would have not covered all the goods requested, and often for a higher price. While it is not possible to confirm how much itemization is done in individual PIC-9, anecdotal evidence confirms that while this practice is acknowledged and encouraged, it is seldom implemented. Taking 2019 as an example of more 'typical' pre-COVID-19 spending, a 30 percent saving would have freed up around US$740,000 annually in Kiribati, US$670,000 in Tonga, US$580,000 in Vanuatu, US$210,000 in Tuvalu, US$380,000 in Palau, and US$1.5 million in Samoa.[36]

34. Beyond Essential Systems and the mSupply Foundation, personal communication, August 2022.
35. Beyond Essential Systems and the mSupply Foundation, personal communication, August 2022.
36. The data on pharmaceutical in the three COFA countries is incomplete, so there has not been an estimation of savings.

Figure 4.20: Itemizing tenders could yield significant savings



Note: Pacific Island Country to remain anonymous.
Source: Beyond Essential Systems and the mSupply Foundation, personal communication, August 2022.

Table 4.3: Some of the PIC-9 are paying a premium on pharmaceuticals, likely due to poor procurement practices

Total price paid in USD versus lowest possible price in a Pacific Island Country, 2018–2019

	Total price paid	Lowest possible price	Difference/potential savings	Potential savings
Amoxicillin tabs/caps 250mg	331,471	263,518	67,953	21%
Benzathine penicillin	22,908	20,916	1,992	9%
Gauze, 90cm rol/100m	212,809	180,477	32,331	15%
Gentamicin inj. 80mg in 2ml	3,421	3,400	21	1%
Gloves, med Box/100	155,475	135,716	19,759	13%
Metoclopramide inj. 10mg in 2ml	1,459	1,030	429	29%
Paracetamol tabs 500mg	259,528	165,015	94,514	36%
Sodium Chloride 0.9% infusion 1000ml	144,241	139,035	5,206	4%
Sodium lactate compound 1000ml	274,557	65,548	209,009	76%
Syringe, disposable 10ml	32,196	26,892	5,304	16%
Total Dollar amount	**1,438,065**	**1,001,547**	**436,518**	**30%**

Source: Beyond Essential Systems and the mSupply Foundation, personal communication, August 2022.
Note: Pacific Island Country to remain anonymous.

Suppliers also factor in risk to their bids, and thus the risk of doing business with small PIC-9 can lead to higher prices. Suppliers' concerns include changed contract and delivery terms in subsequent purchase orders (after contracts have been signed), unrealistic delivery terms requests and delayed payments. In some countries, outstanding arrears (with invoices sometimes left unpaid for many years) are creating considerable reputational damages, with suppliers either increasing prices to make up for risk, refusing to do business, or insisting on being paid upfront before shipping goods. The size of the markets can also be a disincentive to suppliers. The prequalification and bidding requirements for small countries are sometimes as onerous as those in much larger markets (e.g., PNG, Solomon Islands, and Fiji) and the projected profits can seem too small for suppliers. Streamlining these processes (e.g., sharing the administrative burden of prequalifying suppliers) could encourage more suppliers to participate with smaller countries. Lastly, in some PIC-9 like RMI, consolidating multi-year procurement contracts across facility levels could also simplify procurement process, improve general oversight, and reduce price paid (due to economies of scale) (World Bank, 2021a).

4.6.4 Improved management of utilities can deliver efficiency savings

Utilities are a considerable expenditure that could be better managed to provide efficiency savings. Utility costs are non-negotiable expenditures that are necessary for the smooth running of health facilities. Because unit costs are often high among the PIC-9, managing their usage to limit misuse is needed. Utilities represented between 14 and 17 percent non-payroll recurrent domestic expenditure on average between 2015 and 2020 in many of the PIC-9. In Vanuatu and Tonga, the main referral hospital spent about a quarter of annual expenditure on utilities. Utilities are an area where potential savings can be captured across many Pacific countries. Some Pacific countries have shown that energy audits and simple behavior changes—such as turning off air conditioning and lights in vacant rooms and attending to leaking taps—can give rise to substantial savings over time. In Tonga, the rooftop solar panels installed on Vava'u hospital could provide 43 percent of the annual electricity needs of the hospital, giving it increased energy independence and sustainability (an average of around US$150,000 would have been saved annually in Tonga since 2017 if solar panels yielded a 40 percent reduction on MOH's electricity bill—1 percent of average MOH spending). More could be done to explore solar powered boats used to travel between islands to reduce dependency on expensive fuel. In Vanuatu, electricity and water audits have been used to help hospitals assess their utility consumption and identify practical strategies for achieving efficiency and cost savings. This is evidenced in the case at the Northern Provincial Hospital (NPH) in Vanuatu which secured ongoing monthly savings of around US$1,700[37] thanks to the implementation of the findings of an energy audit (US$20,400 per year—30 percent of the current average annual electricity spending of the NPH). One of the easiest and most cost-effective methods to reduce consumption is to remind health personnel of good practices on usage. For example, switching off devices and appliances that are not being used and are often left on overnight, such as air-conditioners, lights, and computers. Leaking taps and toilets with continuous running water are easy fixes that would greatly help reduce water bills and improve availability of this precious resource during droughts.

37. The annual spending of Northern Provincial Hospital in 2017 was VT 15.5 million. So annual savings of VT 2.4 million would have been 13 percent of total spending pre-savings.

4.6.5 Digital systems and technology offer opportunities to improve quality and access

Digital systems, technologies, and data have the potential to solve persistent health care challenges facing the PIC-9 but progress is slow. Despite increasing use of digital solutions in the regional health systems, there have been numerous challenges to effective implementation and uptake. Development efforts in the Pacific have been hampered by a lack of administrative, information, and communications technology, and broader systemwide architecture required to support the sustainable and scalable use of digital health. Where available, digital HIS and FMIS are often fragmented and not interoperable, although several of the PIC-9 are improving or implementing new systems. Consequently, many PICs are still considered to be at an early stage of digital health maturity. Traditional face-to-face health services thus remain the bedrock of service delivery. Improvements in telehealth service options will provide support for better patient management close to home and reduce local referral costs. Some countries like Tonga are looking to change prescription practices to limit patients' need to travel to larger facilities to consult specialists (particularly for pharmaceutical prescription renewals).

4.7 What will it take to improve health sector performance and spending efficiency?

In the forecasted economic environment, improving the quality of spending will be a key source of fiscal space to further invest in health in the PIC-9. Allocative efficiencies can be achieved by increasing the share of resources provided for large return on investment areas, such as prevention and primary health care. Technical efficiencies will come from implementing better systems and processes for large expenditure areas (e.g., HR, OMR, pharmaceuticals, medical supplies, and utilities). Furthermore, taxation policy—taxes on unhealthy products and reduced taxation on health products—could be further leveraged to improve health and increase tax revenue (Chapter 2). In addition, this section summarizes key policy recommendations to improve spending quality in the health sector across the PIC-9. The findings and recommendations are particularly relevant as health systems emerge and cope with COVID-19 endemicity and explore ways to respond to future pandemics.

Stronger corporate and clinical governance is a pre-requisite to more efficient and quality health results. PIC-9 are encouraged to reinvigorate governance mechanisms that will improve health sector performance, informed by timely and fit-for-purpose data and analytics. The aim is to nurture a health system which understands that joint action across sectors and stakeholders, particularly with citizens, are all important for improving health outcomes. The onus is on the MOH, supported by the MOFs, to coordinate, plan, and systematically track the various contributions to the health sector for better resource allocation decisions in line with national priorities. Policies in place to progress UHC (such as RDPs or PEHS) will need to be developed where they are not available (RMI) and more actively rolled-out and monitored where they are (Tonga, Kiribati, Vanuatu). Better coordination and collaboration within the health sector is essential for achieving more efficient health results.

Better management and coordination of patient medical referrals (both local and overseas), alongside more effective use of VSMT, will make health dollars go further. The PIC-9 with substantial and/or increasing OMR expenditure should complete a detailed analysis of the costs and options to improve the efficient use of these funds, sharing learnings with peers. Priority countries include Tuvalu, Kiribati, RMI, Nauru, and FSM. This includes examining ways to integrate OMR into existing local referral pathways so that eligible patients are more systematically identified through the referral process. Most countries could also use VSMT more effectively to maximize a broader range of health services and improve health results. Practical fit-for-purpose administration processes are needed, including regularly updated, complete, and standardized patient databases for routine monitoring and analysis to inform decision making. This would enable information on average spending for each condition to be reviewed by destination health provider as well as by the health outcomes achieved from these overseas referral sites. The PIC-9 are encouraged to become strategic purchasers of OMR services, rather than being 'passive' buyers. Countries can require OMR service providers to share detailed health and cost data—with standardized patient and procedural coding—so that governments can compare options and improve purchasing. This information could be analyzed within each country and shared across countries which would then enable the PIC-9 to do more advance purchasing of an expected number of services with bundled payments and negotiated rates. Sharing information across countries would be most useful, for example, learning how the North Pacific countries use SHI to fund OMR. Simultaneously, MOHs must continue strengthening core diagnostic, rehabilitative, and palliative services that can be delivered safely in the country, so that OMR is predominantly used to meet treatment deficits.

Strengthening SCM systems in the PIC-9 will generate savings by reducing costs, stockouts, and wastage. The PIC-9 are encouraged to complete a detailed country analysis of existing procurement practices with the potential to free up over 30 percent of current spending to help meet other needs. This equates to an estimated US$740,000 annually in Kiribati, US$670,000 in Tonga, US$580,000 in Vanuatu, US$210,000 in Tuvalu, US$380,000 in Palau, and US$1.5 million in Samoa[38] (Table 4.4). To do this, investments must be made in systems that will enable timely monitoring of medicines and supplies used across facilities. This will improve efficiency of procurement processes from quantification and forecasting of needs through to warehouse storage and distribution of supplies. Pooled procurement should be further explored, learning from COVID-19 pandemic successes (e.g., for lab equipment, test kits, etc.). The PIC-9 could also explore the option of multi-year procurement contracts which can reduce costs and administrative procedures.

Better adaptive design of infrastructure and management of utility consumption (power, water, phone, and internet) may generate considerable savings. The PIC-9 are encouraged to complete an audit of expenditure in these areas and monitor actions to reduce costs, with findings used to inform new/renovation designs and maintenance plans for more climate resilient facilities. MOHs need to understand the energy requirements of health facilities, to help them track and monitor whether usage (and costs) is adequate or excessive. Monitoring the trend of energy consumption data over time will be useful for this assessment. More climate resilient

38. The data on pharmaceutical in the three COFA countries is incomplete, so savings have not been estimated.

designs, with increased use of renewable energy (solar, wind, etc.) and water harvesting measures will reduce costs in the long run (notwithstanding initial capital investments). Finally, investments in more energy efficient designs and appliances can also reduce operating costs over the medium term.

Updating service delivery models, including review of the total number of health facilities, alongside better management and coordination of the health workforce will lead to more efficient and equitable health care. The PIC-9 are encouraged to review the number and expected functions of health facilities to make the most of finite resources; having fewer well-resourced facilities, with effective regular outreach and use of digital tools may deliver better health outcomes than having many poorly resourced facilities. It might not be possible or desirable to spend more on HR, but adjustments can be made to improve the skill mix and distribution of this largest expenditure category in the health sector. In addition to ensuring health workers have the required skills and competencies to carry out their roles in a quality productive manner, there is scope with increasing connectivity to engage a range of digital tools to deliver a broader range of services more equitably across each country. Training and upskilling of health workers (particularly for staff in more remote settings) must be ongoing, with active workforce planning and succession so that facilities are adequately staffed (with clear plans that include rotations and backups where needed, along with succession arrangements to avoid gaps in staffing and transfer of knowledge). More emphasis is needed on technical efficiency through better use of standard operating procedures for quality of care and implementation of 'best buys' for priority services.

Better integration of health service is needed across the continuum of care in PIC-9. This includes improved **horizontal integration** across health programs, with more resources directed to high return interventions such as prevention, primary care, and 'most at risk' populations. Addressing ACSCs early will reduce the incidence of complications from poor disease control and the need for costly, avoidable hospitalization and OMR. Primary and secondary prevention, detection, and routine management of NCDs must be prioritized. In some of the PIC-9, additional effort is required on lagging agendas of child health and nutrition, through a focus on cost-effective interventions for quality ante-natal care, safe birthing, post-natal care, immunization, and child wellness visits. Investments in integrated sexual reproductive health services create empowered and productive communities that build human capital and contribute to economic growth. Better **vertical integration** across the continuum of care, from health promotion to complex curative/rehabilitative/palliative care and OMR is also needed. Vital hospital service capabilities that need to be integrated and further strengthened in country include disease surveillance, infection prevention and control, and health waste management. There is also a need to expand laboratory and radiology diagnostic and treatment services. Lastly, **better integration across sectors** is crucial to tackle the social and economic determinants of health, facilitating multi-sectoral approaches (e.g., increasing access to quality nutritious food along with evolving taxation measures to reduce consumption of tobacco, alcohol, sugar-sweetened beverages, and highly processed salty and fatty foods).

Effective management of health resources requires staff that are empowered to take timely action, informed by quality information and the use of evolving digital tools. The PIC-9 are encouraged to address health sector management challenges by expanding analytical capacities to develop and use data for decision making, alongside increased accountability and coordination mechanisms. Digital tools such as personalized e-health records allow for sharing of patient history across providers, while digital diagnostic tools facilitate getting expert consultations from referral centers and enable more regular teleconsultations for integrating patient care as well as providing stronger supervision and training between referral centers and remote clinics. Targeted investment in robust information systems and digital tools are needed for both internal and external purposes, including engagement with civil society and development partners on the performance of the health sector. Financial management and health information systems (including for SCM and disease surveillance) need to track, where relevant, age, sex, and geographic disaggregated data in a timely manner to help improve equitable policy and resource allocation decisions. Compiling and using information on vulnerable groups is essential for monitoring progress towards UHC for all.

5. Social Protection

5. Social Protection

5.1 Introduction

Social protection (SP) plays a key role in promoting inclusive growth. Social protection policies contribute to people's wellbeing in various ways: (i) building and protecting human capital, (ii) insuring against the impacts of shocks, thus allowing individuals to take up higher risk activities with higher economic returns, (iii) promoting labor market access and mobility, (iv) stabilizing aggregate demand in times of macroeconomic volatility, and (v) reducing poverty and inequality in society.

In the PIC-9, formal social protection co-exists with informal safety nets. Households and individuals throughout the Pacific islands rely on the broader community, such as extended family, neighbors, the church, or other networks, to assist in times of need. Such relationships underpin the use of remittances from abroad to support those in need. Remittances are an important source of income for many households in the PIC-9, given the widespread migration overseas, including those who migrate temporarily through low- and semi-skilled seasonal and temporary work programs aimed at Pacific islanders.

Formal social protection in the PIC-9 is less widespread, with coverage and spending levels below regional averages or comparator countries. Social assistance in particular is underfunded in the PIC-9, with social assistance schemes largely restricted to small programs targeting the elderly and people with disabilities. Employment programs in the PIC-9 are largely non-existent, with the exception of labor mobility units established as part of overseas employment programs. Social insurance is more developed, though coverage is limited given the size of the informal sector in the PIC-9 and adequacy is a concern.

This chapter examines social protection and its elements in the PIC-9. It begins by making the case for social protection, drawing on global evidence. It then provides an overview of spending, coverage, and adequacy of existing social assistance, social insurance, and employment support services in the PIC-9. The use of social protection in response to COVID-19 and its implications is assessed, as is the subsidization of copra production in RMI and Kiribati. Simulations are presented that show the potential impacts of social assistance spending and copra subsidy reform on poverty across the PIC-9. The chapter ends with a discussion of investments that are needed to enhance social protection, and with recommendations for policymakers.

5.2 Why is social protection important?

Social protection comprises policies and measures that help individuals and societies manage risk and volatility, protect them from poverty and destitution, and help them access economic opportunity (Box 5.1). Social assistance, social insurance, and labor and economic inclusion policies are all elements of social protection (World Bank, 2022e). Social protection includes policies that help people manage risks from either systemic (e.g., natural disaster) or idiosyncratic (e.g., unemployment caused by downsizing of a business) shocks. Social protection can be understood as having three intertwined goals: (i) enhancing resilience by insuring against negative impacts on wellbeing through shocks, (ii) fostering equity by combating chronic poverty and ensuring a minimum income or consumption floor for all members of society, and (iii) creating opportunity through promoting investments in human capital (education and health) and linking people to gainful employment.

Box 5.1: Types of social protection programs

Social protection helps societies manage risks and volatility and protect households from poverty and destitution. Social protection encompasses a wide range of interventions and instruments that differ in nature and scope. Typically, SP systems can be classified under one of three categories:

i. **Social insurance** comprises programs that minimize the negative impact of economic shocks on individuals and families. They include publicly provided or mandated insurance schemes against old age, disability, death of the main household provider, maternity leave, sickness cash benefits, and social health insurance. Social insurance programs are generally contributory, with beneficiaries receiving benefits or services in recognition of contributions to an insurance scheme, though there are also examples of non-contributory social insurance.

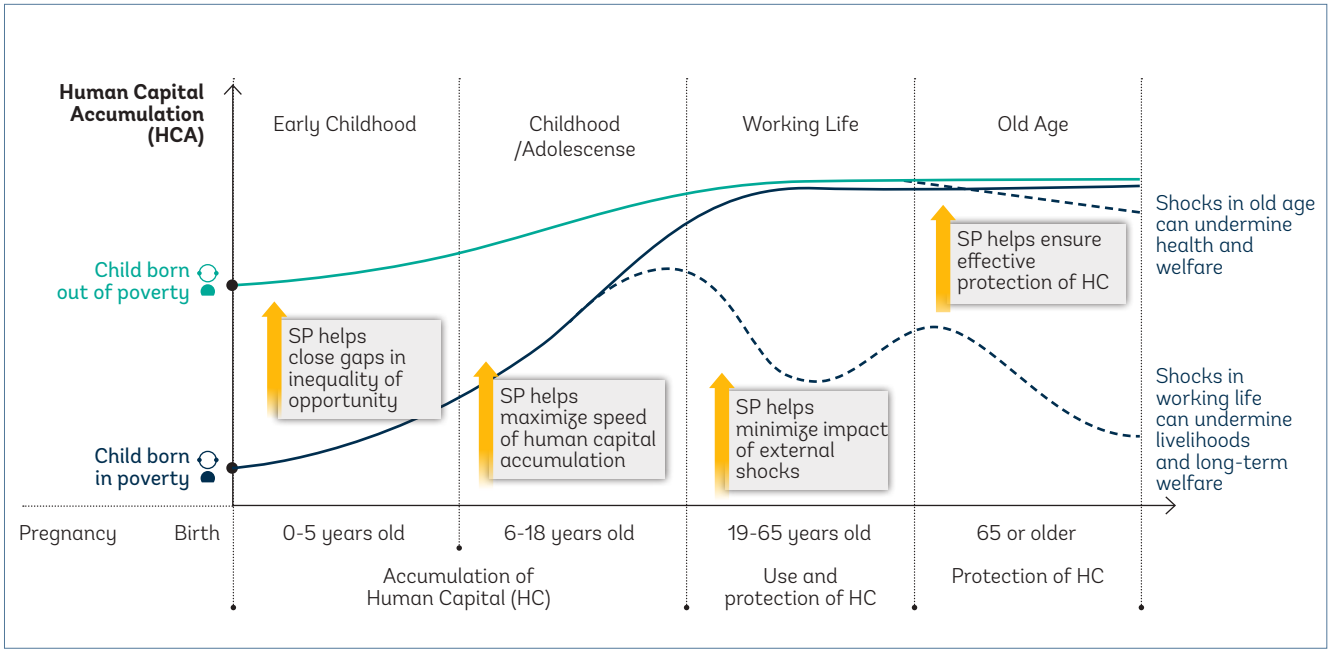
ii. **Labor market program**s serve to protect individuals against loss of income from unemployment, and help individuals acquire skills and connect them to labor markets.

iii. **Social assistance (SA) programs** are non-contributory interventions, which aim to help households and individuals cope with poverty, vulnerabilities, and to reduce inequalities. Social assistance programs can take the form of (a) cash transfers; (b) food, in-kind, or near-cash transfer (such as vouchers); and (c) social care services (local institutions providing support to vulnerable populations).

There is strong evidence of the benefits of social protection having lasting impacts on people's lives. Cash transfer programs have been shown to durably increase households' consumption, savings, and asset holdings (Premand & Stoeffler, 2020) and to decrease inequality (DFID, 2011). Social insurance mechanisms prevent households from resorting to harmful coping strategies such as selling livestock or taking children out of school when hit by a shock (World Bank, 2011c). Sustainable livelihood interventions can put the ultra-poor on a graduation trajectory and sustainably boost their consumption and income (World Bank, 2021b). Lastly, social protection programs can empower women and girls and foster gender equality—facilitating economic, social, and financial inclusion (Overseas Development Institute, 2017).

Social protection also has a key role to play in maintaining and building human capital over the life cycle, linking it to education and health outcomes, and to economic development in the long run (Figure 5.1). Social protection programs impact human capital in various ways. First, by providing support to the most vulnerable households, they prevent the erosion of human capital due to destitution. Second, they allow households to increase investment in their children's education and health, thereby boosting the human capital of the next generation ('Early Childhood' and 'Childhood, Adolescence' phases in Figure 5.1). Third, sustainable livelihood interventions and labor market programs provide training and mentoring to individuals and directly increase their human capital ('Working Life' phase). Numerous impact evaluations from around the world confirm these positive impacts of various sorts of social protection programs (DFID, 2011) (Davis et al., 2020). Evidence from the PIC-9 is more limited, but where it exists it confirms such findings. For example, in the case of an evaluation of a poverty-targeted cash transfer program in Tonga which supports secondary school attendance, preliminary findings suggest that beneficiaries are 67 percent less likely to drop out from high school over the course of their studies than comparable non-beneficiaries.

Figure 5.1: Social protection supports human capital accumulation



Source: World Bank, 2022e.

Increasingly of focus in the PIC-9 is adaptive social protection (ASP), which encompasses systems that are specifically geared to building resilience among vulnerable households to help them prepare for, cope, and adapt to shocks. While any elements of social protection systems, such as social insurance programs and unemployment benefits, can build the resilience of households, ASP programs are specifically designed to protect households from the adverse effects of shocks, scaling up as a response to a natural disaster, economic, or health event. Their aim is to reduce the propensity of households to resort to negative coping strategies in response to shocks. ASP programs have great potential to support the PIC-9, given the exposure and vulnerability of their populations, particularly to natural disasters (World Bank, 2022f).

5.3 How significant is social protection spending in the PIC-9?

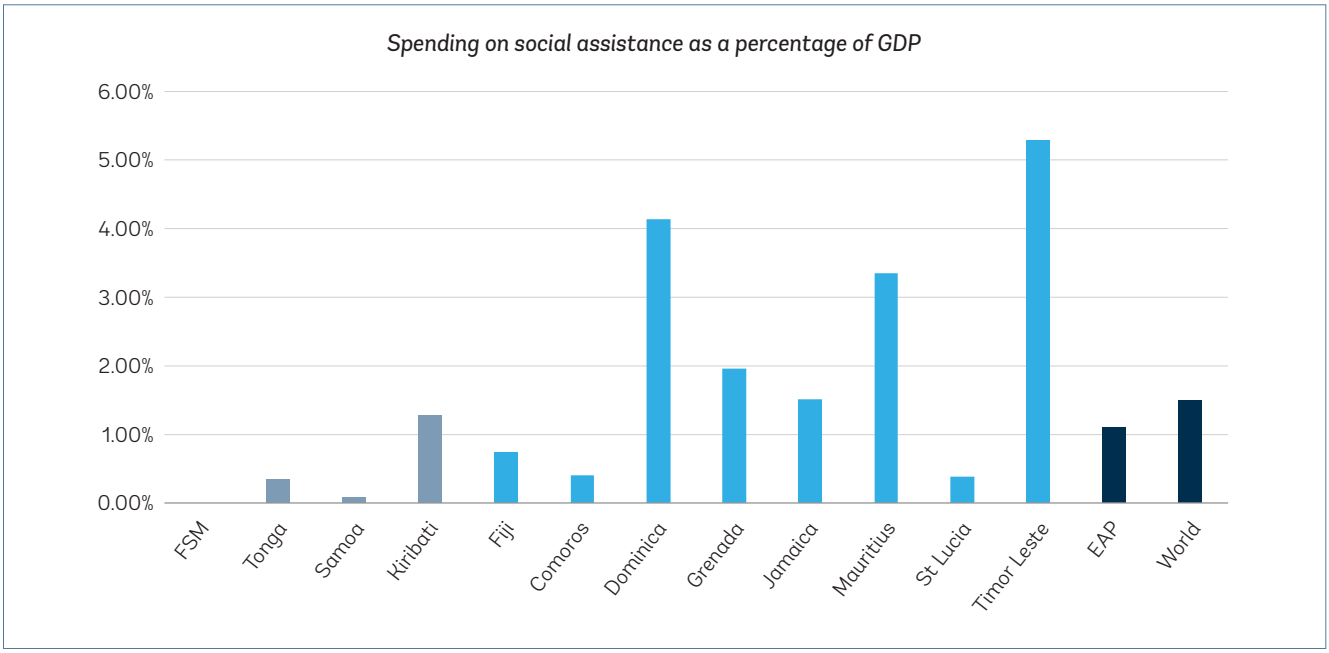
5.3.1 Spending on social protection is generally low, particularly in the case of social assistance

The PIC-9 only have limited formal social assistance programs, though this is changing in some cases. In Vanuatu, there is no national social assistance program apart from a scholarship program with limited coverage. Categorical programs aimed at the elderly and people with disabilities have been implemented in many other PICs, though by design these tend to cover only a small portion of the overall population, meaning that they do not provide a safety net for many poor and vulnerable households. More recently, Tonga has implemented the first conditional cash transfer program in the Pacific targeted to poor families with high school students, while Kiribati has rolled out a large program to support unemployed working-age adults (the Support Fund to the Unemployed). RMI plans to start a conditional cash transfer program targeted to expecting mothers and mothers of children ages 0–5 years old to support improving nutrition and immunization levels as well as preschool enrolment and attendance. Kiribati and RMI also run copra (dried coconut kernels) subsidy programs to support outer island communities, which provides livelihood support for populations living in outer islands that tend to be lower-income and more vulnerable than urban populations.

Although data is patchy, it is clear that spending on social assistance in the PIC-9 is below regional and global averages. Pre-COVID-19 spending data suggests that many of the PIC-9 (where data is available) spend 0.5 percent or less of their GDP on social assistance, which is below regional and global averages (Figure 5.2, Box 5.2). For example, RMI did not operate any formal social assistance programs pre-pandemic whereas Tonga spent less than 0.4 percent of GDP on social assistance. Only Kiribati has significant social assistance spending of more than 1 percent of GDP, which is in line with the average for the East Asia and Pacific (EAP) region yet below the global average of 1.5 percent.[1]

1. Average spending on social assistance prior to the pandemic was 1.8 percent of GDP in upper middle-income countries, and 1 percent of GDP in lower middle-income countries.

Figure 5.2: **Spending on social assistance in the PIC-9 is below regional and global averages**



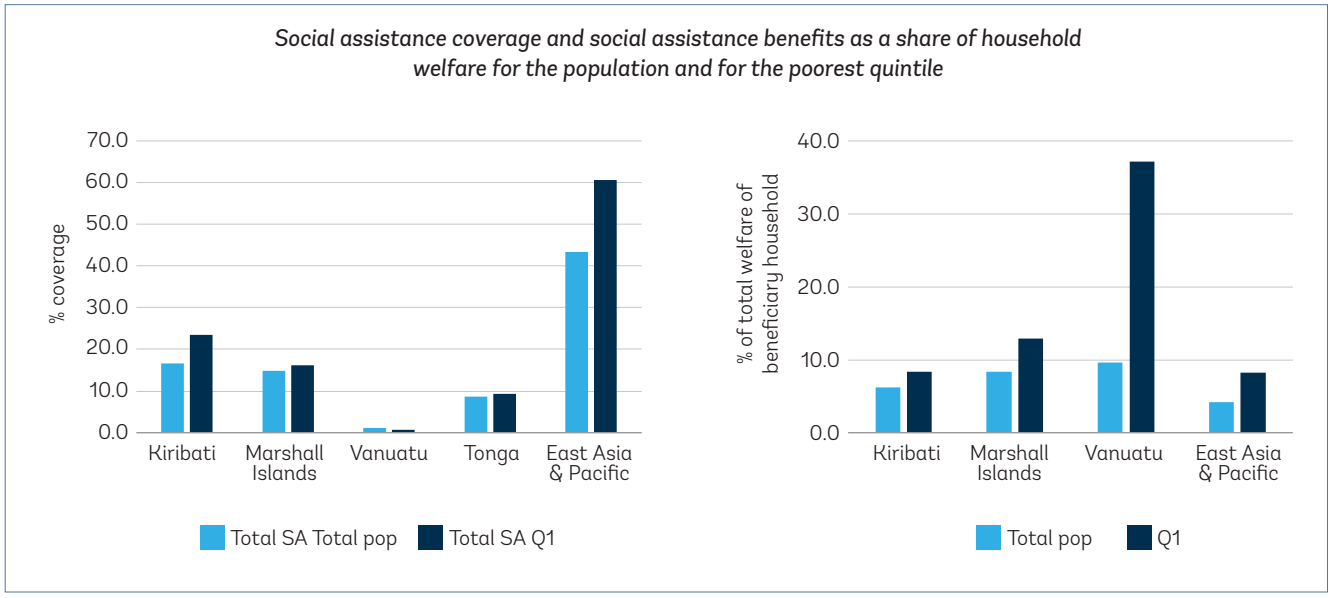
Source: Atlas of Social Protection: Indicators of Resilience and Equity (ASPIRE) - www.worldbank.org/aspire. Latest surveys available within 2010–2019 (World Bank, 2020d).

Box 5.2: Data limitations regarding social protection in the Pacific

Data on social protection is very limited for most of the PIC-9. Data on coverage and adequacy of social assistance and social insurance is available for fewer than half of the PIC-9, while aggregate spending data was only available for Samoa. In some cases, aggregate figures could not be reconciled with the team's knowledge of social assistance programs on the ground. No data was available on employment programs. The team has done its best to provide useful evidence-based analysis despite this challenge. BOOST data was used wherever possible to estimate spending, as was the team's detailed knowledge of social protection program design in some of the PIC-9. In addition, simulations were used to estimate the impacts of spending in the PIC-9—such as in the case of the COVID-19 response, and in the case of poverty targeted social assistance programs. Simulations were also used to estimate the adequacy of pension benefits.

Low levels of spending on social assistance are reflected in coverage. In Kiribati, Vanuatu, Tonga, and RMI (where household survey data is available), social assistance programs reach on average 10.3 percent of the total population, in contrast to the average for EAP of 43.4 percent (Figure 5.3). Although coverage of social assistance programs is somewhat higher in the poorest 20 percent of the population, at 12.4 percent it is still significantly lower than the regional average of 60.7 percent.

Figure 5.3: **Low levels of spending on social assistance are reflected in coverage in the PIC-9**



Source: Atlas of Social Protection: Indicators of Resilience and Equity (ASPIRE) - www.worldbank.org/aspire. Latest surveys available within 2010–2019 are used for regional aggregates. Comparator countries are not included due to data limitations.

PIC-9 social assistance programs represent a high share of beneficiary households' consumption, but low targeting accuracy and small program size limit their poverty reduction impact. Social assistance programs only have limited impact on poverty reduction, reaching on average 2.3 percent of the total poverty headcount in countries for which data is available, compared to 7.4 percent in EAP. This is the result of programs that are not well targeted towards the poorest households. On average, 41.1 percent of social assistance benefits in the PIC-9, for which data are available, are distributed to the bottom 40 percent of the population, compared to 59.2 percent in EAP. High income households also receive considerable support from social assistance programs. For example, in RMI the highest quintile receives 35.6 percent of social assistance benefits, while in Vanuatu the figure is 44.9 percent (the EAP average is 11.4 percent).

One justification for low levels of spending on social assistance in the PIC-9, especially common pre-COVID-19, is that such programs are not needed given the extent of informal social assistance. These informal safety nets, which involve gift exchange relations based on principles of reciprocity, are often based on blood relation, village, language, and other groups or networks that are long established by custom (Nanau, 2011).

While such networks and social capital are certainly a strength of the PIC-9, the available evidence does not support the view that informal safety nets are a substitute for formal social assistance. COVID-19 and large-scale natural disasters have shown the limits of such systems in the face of shocks that affect entire communities and/or countries. Distributional inequalities and lack of access among the most marginalized can also be a challenge (Box 5.3).

Box 5.3: Household data on informal social protection

The distributional impacts of informal social assistance can be explored using household income and expenditure data from a number of the PIC-9. Impacts differ between countries, but in general, households tend to receive more than they give, reflecting the fact that the data captures international remittances, which as noted earlier are significant. This 'remittance effect' is particularly evident for higher income quintiles, which receive the largest transfers from overseas. Such findings are hardly surprising given that the social networks of those living in poverty are smaller and commonly include others at a similar income level, meaning resources are scarcer and may not be available quickly in order to provide support in times of emergency needs.

Two findings in particular stand out from analysis of informal social assistance:

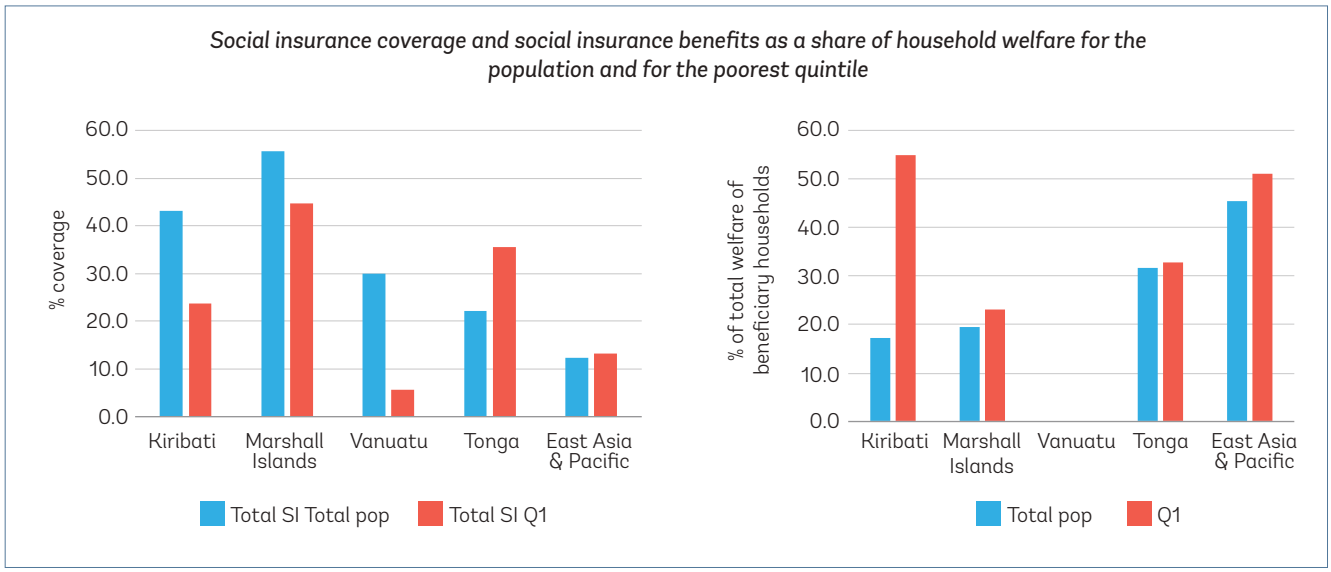
1. **Informal social assistance received by the first (poorest) quintile is lower as a share of mean household consumption than that of households with higher incomes.** This is despite such households being in most need of assistance, and in a context where formal social assistance is extremely limited.
2. **The level of informal assistance as a share of total household expenditure is low in all countries for which there is data, but especially so in Vanuatu (where formal social assistance is particularly constrained).**

Importantly, none of the countries attain levels of adequacy normally required for social assistance transfers to be effective at poverty alleviation and vulnerability mitigation (Grosh et al., 2022). Such findings suggest that informal safety nets: (i) are insufficient for the task of protecting poor households; (ii) are driven by international remittances (countries with lower remittances are likely to see lower value transfers); and (iii) can be regressive, with high income households receiving more in absolute terms, even when accounting for higher levels of giving.

5.3.2 Spending on social insurance is more significant, though coverage of informal sector workers and adequacy is a challenge

Contributory social security schemes and provident funds are widespread, with most of the PIC-9 having in place a government-mandated pension system for formal sector workers. Limited coverage of informal workers is reflected in significant differences in coverage rates in some countries between the overall population and the poorest quintile—the group most likely to work informally (Figure 5.4). In addition, contribution rates at retirement in many countries are relatively low, reflecting the tendency to move in and out of formal jobs as well as relatively low retirement ages in many of the PIC-9. Pension adequacy appears to be below the EAP average, though data is limited. In some countries, benefit adequacy of provident funds has been an issue, with low returns on investment (in the North Pacific). Only Palau seems to face serious sustainability challenges, with the defined benefit schemes in FSM and RMI having enacted parametric reforms in recent years.

Figure 5.4: Social insurance indicators are better but coverage of informal workers and adequacy levels remain a challenge in the PIC-9



Source: Atlas of Social Protection: Indicators of Resilience and Equity (ASPIRE) - www.worldbank.org/aspire. Latest surveys available within 2010–2019 are used for regional aggregates.

Three PIC-9 countries (FSM, RMI, and Palau) have Defined-Benefit (DB) schemes financed on a pay-as-you-go basis while all of the others have pre-funded Defined-Contribution (DC) schemes. In general, these DC schemes are provident funds which are centrally managed by a government established institution and/or subcontracted to an external manager (Table 5.1). All the schemes in the region with the exception of Nauru, Palau, and Tonga are unified across workers in the public and private sectors (Nauru has a separate scheme for parliamentarians). Key parameters of schemes in PIC-9 countries include:

- Combined employer/employee contribution rates tend to be between 12 percent and 16 percent with the lowest (Vanuatu) at 8 percent and the highest (Tuvalu) at 23 percent. This is relatively low when compared with Organisation for Economic Co-operation and Development (OECD) countries.
- The retirement age ranges from 45–65, though is concentrated in the 55–60 range. This is substantially lower than is the case of OECD countries.
- Many DC schemes in the region offer access to retirement funds in case of unemployment.
- Most of the DC schemes have early withdrawal provisions for death, disability, unemployment, severe illness, or education of dependents. Some of the DC schemes have loan schemes, particularly for home ownership or home improvement.
- Some schemes offer insurance protection, typically life insurance and some are linked to health insurance.

Table 5.1: Social Insurance Schemes

Country	Contribution Scheme	CS/PS Unified/ Separate	Contribution Rates		Required Contribution	Retirement Age/ Vesting
			Employer	Employee		
FSM	PAYG DB Social Security scheme	Unified	7.5%	7.5% to cap - Self-employed - 5%		65 + 50 quarters coverage + US$2,500 cont.
RMI	PAYG DB Social Security scheme	Unified	8% 1/	8% 1/	Every employee in the RMI	63-65 (phase-in to 2025)
	Government Employees Retirement Plan	Supplemental vol. scheme	3%	3%	Govt. employees	
Palau	PAYG DB- Civil Service Pension Fund	Separate	6%	6%	Civil servants	60 or 30 years service
Palau	PAYG DB Social Security Fund	Separate	7%	7%	All employees w/ income >$300/quarter	60 and 38 quarters of service
Samoa	DC - Provident Fund -	Unified	7%	7%	All employers with contract employees	55 or 50 & un-employed for 5 years
Kiribati	DC - Provident Fund	Unified	7.5%	7.5%		50; any age if unemployed 6+ months
Nauru	DC – Superannuation Scheme	Unified	5%	5%	Employers with 5+ workers must participate	55–retired or not employed
Tonga	DC National Retirement Benefits Scheme	Separate	7.5%	5%	Employers with 1 or more employees	50–60
Tonga	DC Civil Servants -Retirement Fund Board	Separate	10%	5%		60
Vanuatu	DC Provident Fund	Unified	4%	4%	Workers earning > VT 3,000 per month contribute	55
Tuvalu	DC Provident Fund	Unified	10%	13%		46–65

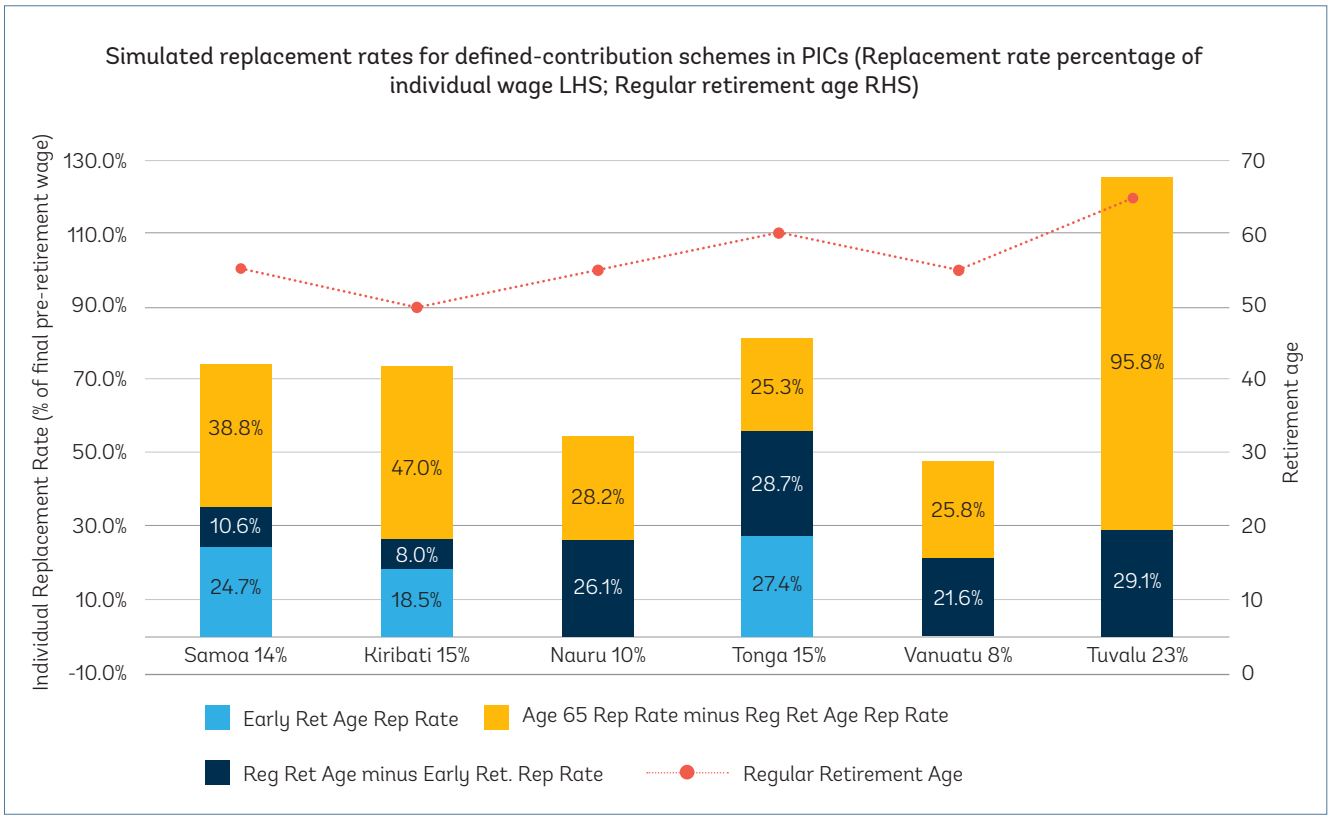
Country	Regular Retirement Benefits (US$)	Pre-retirement Benefits	Non-Contributory
FSM	16.5% first $10,000 covered earnings, + 3% > $10,000 but < $30,000, + 2% of earnings < $262,500, + 1% > $302,500	Early pension Age 60	
RMI	• 2% of Indexed covered earnings, • 14.5% of the first $11,000 • 0.7% of the next $33,000	Redistribute benefits at 55; + disability and survivorship	
Palau	2% accrual rate.	Reduced benefits at 55 w/20 years	
Palau	1/12): 27% first $11,000 cum. ear earnings; 2.9% of earnings > $11,000 but < next $33,000; 1.5% earnings > $44,000; & 0.75% of earnings > $500,000		
Samoa	Lump sum, annuity or combination		Senior Citizen Ben. Scheme – Universal 200 Tala/month (300 COVID-19 bonus)
Kiribati	Lump sum	Early withdrawal age 45 if retired	Univ. pension age 67+ ($A 50/ month-60/month age 70+)
Nauru	Lump sum	Early withdrawal -permanent disablement	Non-contr. universal benefit - age 60+ or disabled
Tonga	Lump sum or allocated pension		Cash transfer age 70+
Tonga	Lump sum or allocated pension		
Vanuatu	Lump sum	Withdrawal from medisave & inv. Accts. age 47	
Tuvalu	Lump sum or annuity		Elderly Benefit Scheme - monthly $100.00

The adequacy of pension benefits is of particular concern in the PIC-9 and is made worse in the case of DC schemes by the use of lump sum payouts, which subject members to substantial longevity risk.[2] Simulations[3] of pension entitlements for full-term workers, which use the generous assumption that an individual works every year until retirement age and makes no pre-retirement withdrawals, generate the following insights (Figure 5.5):

- The countries with the lowest projected replacement rates at retirement (Nauru and Vanuatu) have the lowest contribution rates (10 percent and 8 percent, respectively). Nauru also has a non-contributory elderly assistance benefit but with receipt of benefits at age 60—well after the regular retirement age of 50.
- There is a strong correlation between the regular retirement age and the projected replacement rate.
- All of the countries, with the exception of Tonga, have projected replacement rates at the regular age of eligibility which are lower than the minimum specified by the ILO Convention 102 which suggests a minimum 40 percent replacement rate for a government-sponsored scheme. Aside from Tonga, the replacement rates are simulated to be in the 21–35 percent range.
- All of the countries could have a substantial and meaningful increase in simulated replacement rates by either increasing the retirement eligibility age or encouraging workers to work and contribute longer to their retirement savings schemes.

2. It is for this reason that many DC schemes worldwide have moved to annuitization or phased-withdrawal mechanisms. Of the six provident funds in the PIC-9, Tonga, Tuvalu, and Samoa provide the option of receiving a benefit as an annuity or allocated pension though few retirees choose to do this.
3. Measuring individual replacement rates at retirement is difficult to assess given the diversity of parameters involved, which include the number of years of contributions (in turn influenced by labor market conditions, participation, and levels of formality), the contribution rate and the distributed rate of return on assets. One means of comparing schemes with diverse contribution rates, retirement ages, and relatively diverse life expectancies is to model pension entitlements for full-term workers under the assumption that an individual works every year until retirement age and makes no pre-retirement withdrawals. Although this admittedly provides a best-case scenario about pension entitlements, this nevertheless becomes a means of comparing benefits across countries. Work-life accumulations for the six countries with DC schemes have therefore been modeled according to the individual contribution rates, retirement ages, and life expectancy at retirement age in each country. This is the same methodology employed by the OECD to compare the pension entitlements across countries (OECD, 2021). It was not possible to model the adequacy of any of the three defined-benefit schemes (FSM, RMI, and Palau) because each has a redistributive formula and there was no available data on the wage distribution and work histories.

Figure 5.5: **Adequacy of benefits for defined-contribution schemes in the PIC-9 is of concern**



Note: This analysis assumes that (i) all covered employees begin work at age 22 and make contributions continuously until the early retirement age, the regular retirement age, or age 65; (ii) any employer and employee would make a full contribution rate and therefore did not apply the cap on covered wages applicable in some countries; (iii) no withdrawals would be made prior to receipt of an old-age retirement benefit; (iv) wages would grow by 2 percent annually and the rate of return on assets under management would be 4 percent annually; and (v) all retirees would receive an annuitized benefit based on a discount rate of 2 percent/year.
Source: Bank estimates, UN Population Projections, 2019.

5.3.3 Employment support and productive inclusion programs are limited, despite their significance in the case of low-skilled migration programs

Two types of employment support and productive inclusion programs have been most common in the PIC-9: (i) skills and vocational education programs; and (ii) passive temporary unemployment benefits available to members of social insurance programs. The former are typically delivered in both secondary school and post-secondary training and vocational institutions, while the latter are essentially retirement savings made available to members of social insurance programs (primarily workers in the formal sector). Skills and vocational education have been neglected in many of the PIC-9 historically but have been receiving increasing attention and funding in recent years. A priority is to ensure such training meets the needs of employers.

In the last decade, pre-departure and other short skills training aimed at migrant workers has also become increasingly common. Broader use of active labor market policies[4] has been more limited, despite their relevance given urbanization and elevated youth unemployment, though this is changing. Table 5.2 provides a summary of employment programs implemented in the PIC-9.

Table 5.2: Labor market programs operating across the PIC-9 pre-COVID-19 were limited

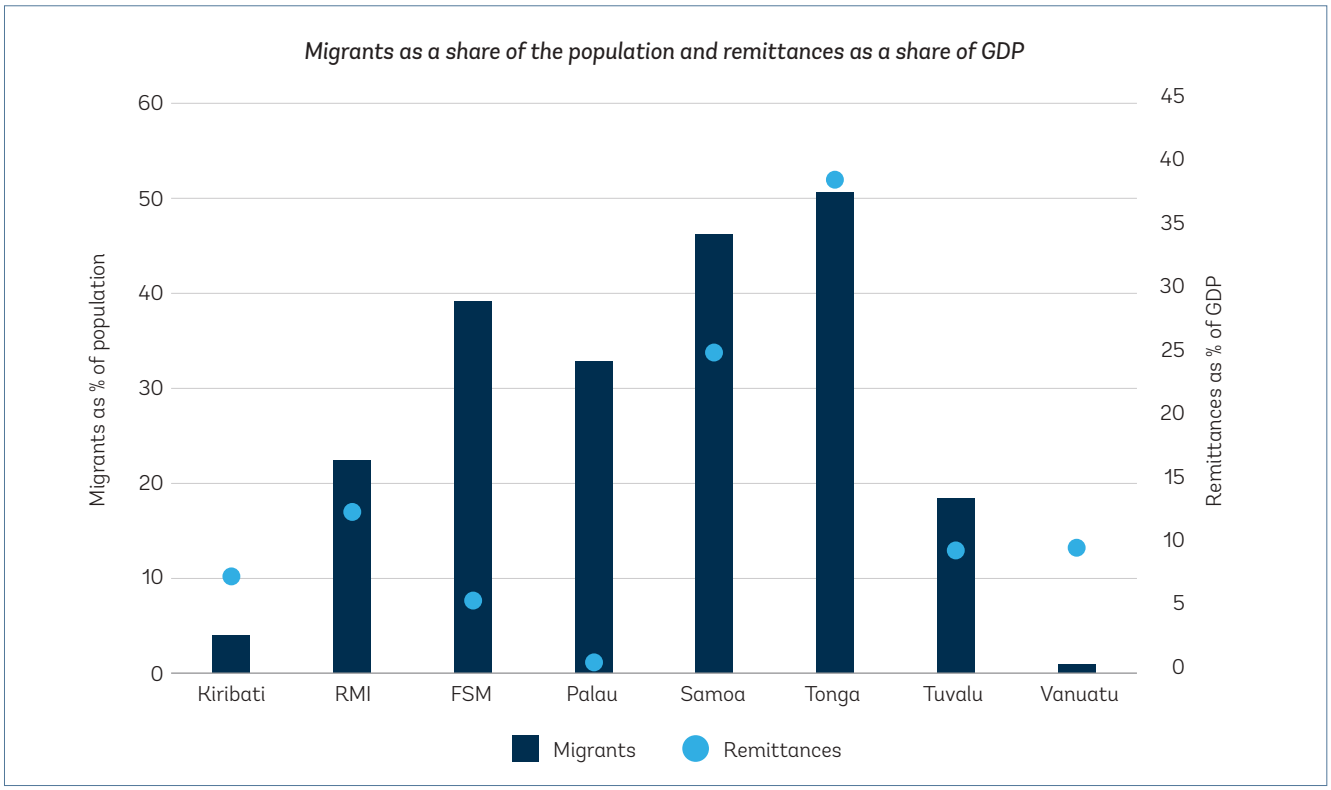
Country	Active Labor Market Programs					Passive Programs
	Employment creation	Self-employment assistance	Employment services	Skills development/ training	Migration Support	Unemployment/ Severance payments
FSM	-	-	-	Multiple TVET Institutions	-	
Kiribati	-	-	STEP Job Search Centre, Ministry of Employment and Human Resources	Multiple TVET Institutions	Pre-departure departure briefing and training; Revolving Fund	KNPF Unemployment Benefit
RMI	-	-	-	National Training Council, Multiple TVET Institutions	-	
Samoa	-	-	-	Multiple TVET Institutions Samoa National Youth Council Unemployment Program	Pre-departure briefing and training	SNPF Unemployment Benefit
Solomon Islands	Rapid Employment Project		-	Skills for Economic Growth Program	Pre-departure briefing and training	SINPF Unemployment Benefit
Tonga	Post-TC Ian CFW Scheme	Tonga Youth Employment and Entrepreneurship Centre	Tonga Employment Services Centre	Multiple TVET Institutions; Life skills training for school dropouts; TYEE; TBEC	Pre-departure briefing and training	NRBF Unemployment Benefit
Vanuatu	Post- TC Pam CFW Scheme	-	Employment Services Vanuatu	Multiple TVET Institutions; Ready 4 Work Program	Pre-departure briefing and training	Severance Pay

Source: World Bank, 2022f.

4. Active labor market policies (ALMPs) are tools used to assist workers to gain and remain in employment, increase their earnings and productivity, and improve labor market functions. ALMPs can take many forms but are typically understood to cover employment creation (public works programs, wage/employment subsidies), self-employment assistance, employment services, skills development and training, migration support programs, as well as unemployment insurance and mandatory severance payments.

Many PIC-9 countries also benefit from temporary migration programs and agreements targeting low- and semi-skilled workers, with pre-departure training and increasingly TVET education used to support employment through these schemes. Seasonal, temporary, and vocational worker schemes have been especially important to non-Compact countries, which do not benefit from free movement of citizens to high income nations like the US. Such labor migration opportunities have been found to be beneficial, with positive impacts on income, consumption, and human capital development, and are an important source of remittances for countries which have a limited diaspora, such as Vanuatu (Figure 5.6).[5]

Figure 5.6: Migrant populations and remittances in the PIC-9 are significant



Note: Latest available data for Tuvalu is 2019.
Source: World Bank, 2020d.

Despite these benefits, PIC-9 governments only allocate limited funding to support participation in labor mobility schemes. For example, in Tonga, the budget allocated to the Labour Sending Unit (LSU) responsible for coordinating and overseeing workers' participation in the temporary labor migration schemes averaged T$535,000 annually between 2014 and 2021. This is equivalent to T$130 per worker (US$55), for schemes which generate returns of US$2,090 per month for participating workers, US$760 of which is remitted.

5. For example, an evaluation in Tonga found that the proportion of school-age children enrolled and attending classes was 7.7 percent higher for those with a household member in Australia's seasonal worker program (SWP, now renamed Pacific Australia Labor Mobility program) (World Bank, 2017). Workers who are employed through the temporary labor migration schemes earn significantly more than what they could make at home. Net earnings after taxes and deductions average US$2,090 per month under the SWP and US$1,944 per month under the RSE, according to data from the World Bank Phone Survey on Pacific Migrant Workers in 2020. Workers under these schemes on average remitted approximately US$760 and US$580 per month, respectively.

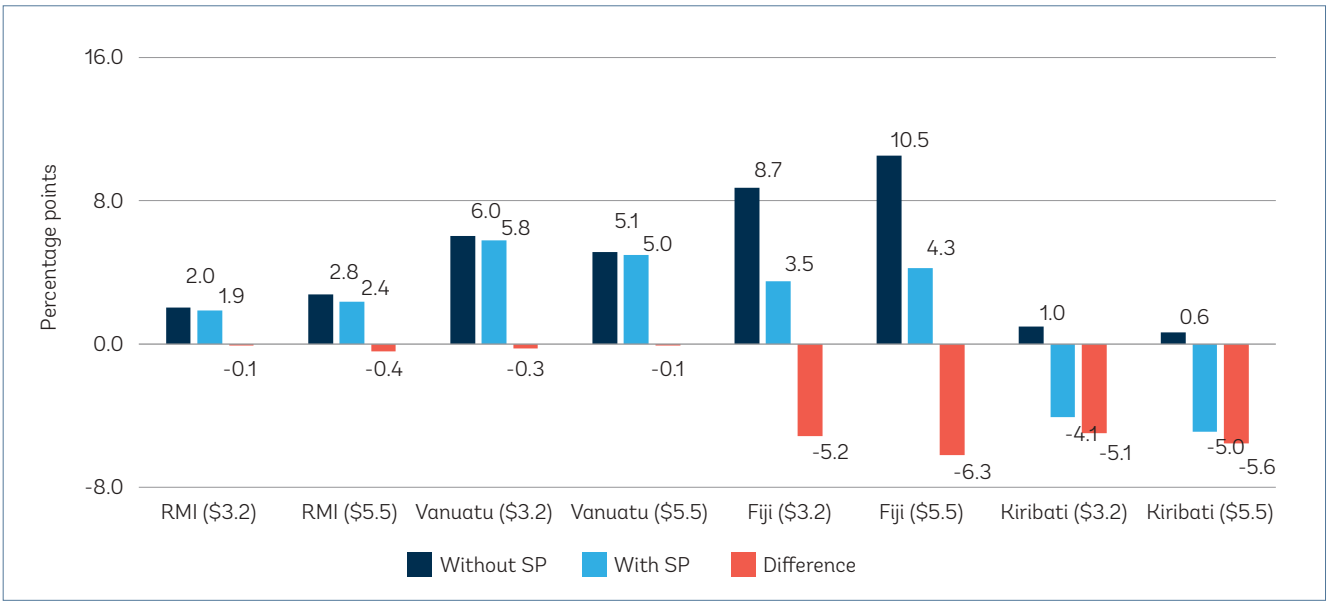
5.4 What was the impact of COVID-19 on social protection in the PIC-9?

5.4.1 Social protection programs featured prominently in the response to COVID-19, but most interventions were temporary

The pandemic highlighted the importance of social protection, with social assistance, social insurance, and employment support programs used to mitigate the economic impact of the pandemic. While many of the PIC-9 managed to avoid an initial surge in COVID-19 infections due to their remoteness, their economies where nevertheless significantly impacted. Kiribati, FSM, and Palau introduced unemployment support programs, FSM introduced one-off cash transfers and food support programs, Tonga introduced top-up payments for existing social assistance beneficiaries—and Vanuatu, Samoa, and Tonga introduced wage-subsidy programs (Gentilini et al., 2021).

While definitive evidence from household surveys is mostly not yet available, simulations show that these programs significantly mitigated the impact of the COVID-19 shock on poverty and vulnerability of PIC-9 households. Pandemic-related social protection expansions were found in simulations to have reduced poverty compared to what would have otherwise been the case (Figure 5.7), with the impact most significant in countries where social assistance was used more extensively (World Bank, 2022f).[6]

Figure 5.7: Social protection programs reduced the impacts of COVID-19 on poverty



Note: $3.2 and $5.5 refer to lower-middle income and upper-middle income international poverty lines, measured in US$ at 2011 Purchasing Power Parity terms.
Source: Authors' calculations using the ADePT simulations interface.

6. As these are findings from a simulation, caveats should be noted. In particular, they do not account for implementation issues associated with programs, which in the case of the newly established Support Fund for the Unemployed in Kiribati, are likely to be significant. These simulations also included Fiji in addition to others of the PIC-9.

Although most interventions were temporary in nature, their demonstration effect has been powerful, and there is potential for them to serve as a stepping stone towards enhancing social protection in the PIC-9. As is discussed below, priorities should include building of social registries, addressing the coverage gap, improving targeting efforts, and building fiscal opportunities for the PIC-9 to gradually move towards universal social protection and more durable formal social protection systems.

5.5 Are subsidies used to support the poor in the absence of strong social protection?

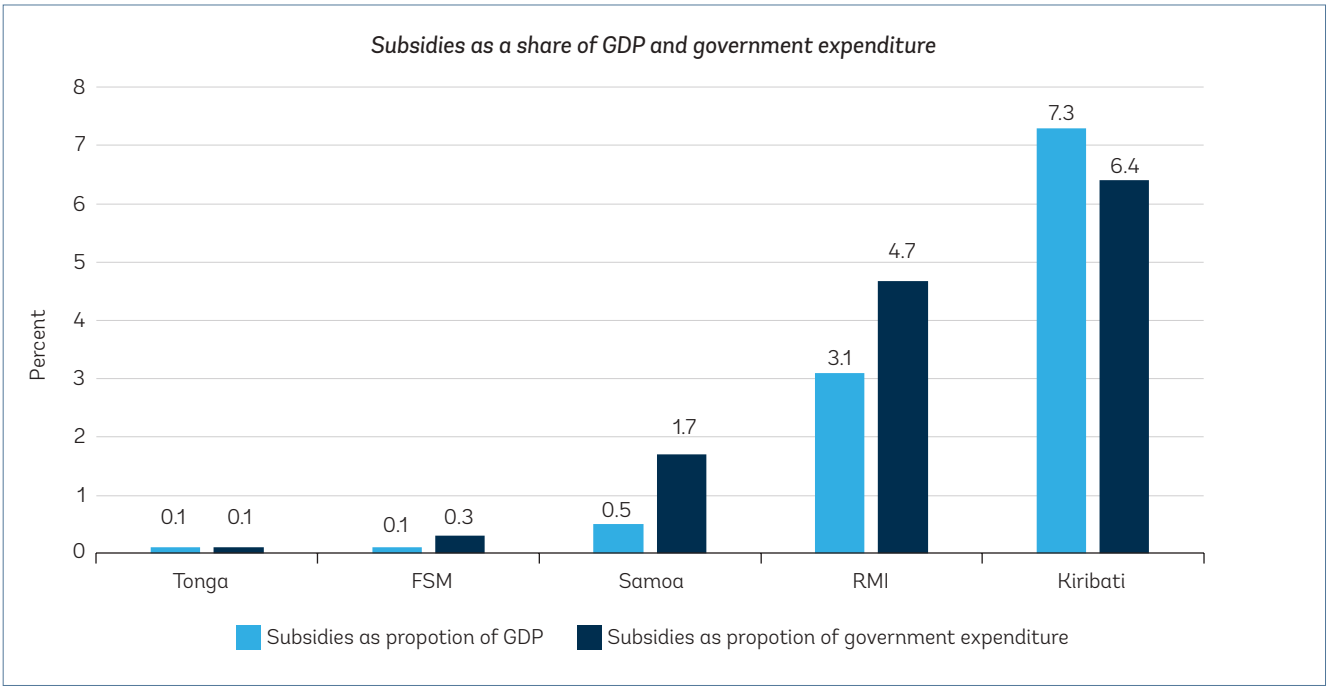
5.5.1 Among the most notable subsidy programs in the PIC-9 that support households are the copra subsidies in Kiribati and RMI

Subsidies for producing copra have some similarities to geographically targeted cash transfers for rural households, though their payment on the basis of production is an obvious and important difference. Kiribati maintains the most substantial subsidy program in the region—the Copra Price Subsidy Scheme—followed by RMI's subsidy to the Tobolar Copra Processing Plant. These subsidies provide a government guarantee for the purchase price of copra from those growing coconut palms—a significant source of livelihoods in the outer islands of both atoll states. These programs are large and come at significant fiscal cost. Kiribati and RMI spend about 7 and 3 percent of GDP (6 and 5 percent of their annual budget), respectively, on copra subsidies (Figure 5.8). Samoa also maintains agricultural and electricity subsidies, although at much lower cost compared to the subsidies in RMI and Kiribati.

A key aim of the copra subsidies is to discourage urban migration from the outer islands to the capitals, and to encourage unemployed internal urban migrants to move back to their respective islands in order to earn an income (World Bank, 2022f). The attractiveness of subsidies for PICs, in comparison to cash transfers, is that they have already been established, whereas cash transfers are mostly new to the Pacific islands. Copra subsidies require the recipient to engage in copra production, and are therefore more politically tractable than transfers, which are still perceived by many as 'hand outs' despite the large body of evidence regarding their impacts on poverty reduction and human capital accumulation, and potential to link social assistance to productive inclusion and employment services.[7] In Kiribati, 79.4 percent of households in Rural Gilberts to 51.5 percent in Line and Phoenix Islands engage in copra production, as compared to only 1.8 percent in South Tarawa Islands (the urbanized main island and capital city). Among copra producing households on Rural Gilberts and Line and Phoenix Islands, 94.4 percent reported that the subsidy made them more likely to stay on their island. However, this also diverted households from other rural economic activities (such as fishing), and limited household access to other productive activities and public services that are more prevalent in the urban centers.

7. See also https://blogs.worldbank.org/impactevaluations/what-have-we-learned-about-cash-transfers

Figure 5.8: **Subsidies are generally limited in the PIC-9, though copra subsidies are significant in Kiribati and RMI**



Source: PIC-9 annual budgets, 2016 (except for: RMI, data is a 3-year average for FY2019–21; Kiribati, data is a 3-year average for FY18–20).

High expenditure on price subsidies crowds out other SP programs, which could have a higher impact on reducing hardship. Copra subsidies are not targeted towards the poor—while it is true that hardship is high in outer islands, by definition, their benefits accrue unequally to those that have the ability and resources to harvest copra, not those in need. Communities on islands that are less suitable for coconut growing are less able to benefit from the scheme. Among eligible households, earnings from copra sale varies widely across islands.[8] In Kiribati, the increase in the subsidy since 2016, while leading to an increase in cash income for the vast majority of its beneficiary households (94 percent), has had uneven impacts. Data from the 2019–20 Household Income and Expenditure Survey (HIES) shows that twice as many respondents in Line and Phoenix Islands reported a large increase in income following the increase in the subsidy compared to those in the rural Gilbert Islands. The IMF recently recommended limiting increases in copra subsidies to ensure fiscal room for climate change adaptation and replacing the copra subsidy with targeted social transfers where necessary (IMF, 2019d).

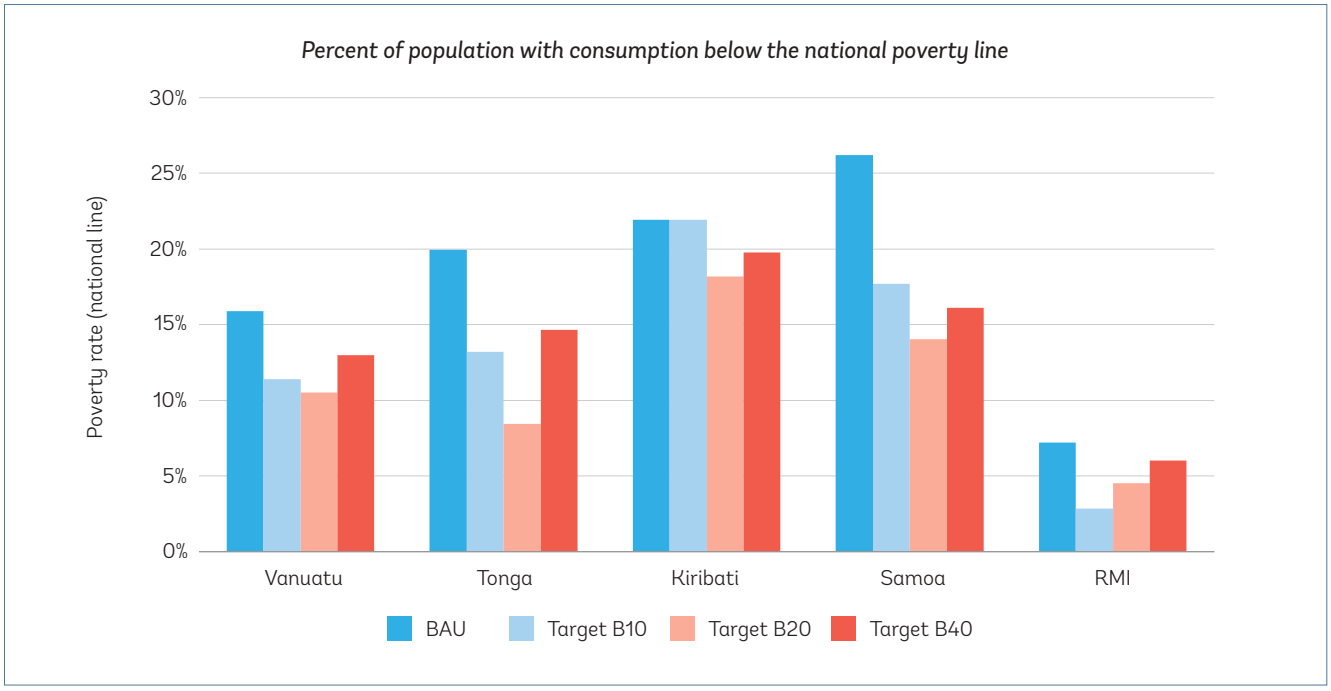
8. Preliminary analysis by the World Bank using HIES 2019–20 data shows that households in Line and Phoenix Islands earn $A 619 a month from copra sales compared to $A 195 in the Rural Gilberts and only $A 95 in South Tarawa (the median values are $A 260, $A 130 and $A 58 respectively). There was also considerably more variation in the amount earned in Line and Phoenix Islands compared to in the Rural Gilberts.

5.6 What is the case for improved spending on social protection?

5.6.1 There are compelling arguments for increasing social assistance spending and coverage, given its potential benefits and limited reach in the PIC-9

The impacts of increased spending on social assistance can be modelled using household survey data. The potential benefits of social assistance are broad ranging and long term, and include enhanced human capital, productive inclusion and economic activity, and gender equity. Although this is the case, simulations can most clearly measure the immediate impacts on poverty of targeted social assistance programs. Average spending on safety nets in low- and middle-income countries is 1.5 percent of GDP. We therefore model the impacts of the introduction of a social assistance program costing 1.5 percent of GDP that targets the poor in five of the PIC-9 for which there is household data available, noting that in many countries social assistance is restricted to categorical programs, with poverty targeting still nascent.[9] The intention is not to compare countries—this is inappropriate, given differing national poverty lines, levels of GDP, and household income/consumption profiles. Results are presented in Figure 5.9 to Figure 5.11.

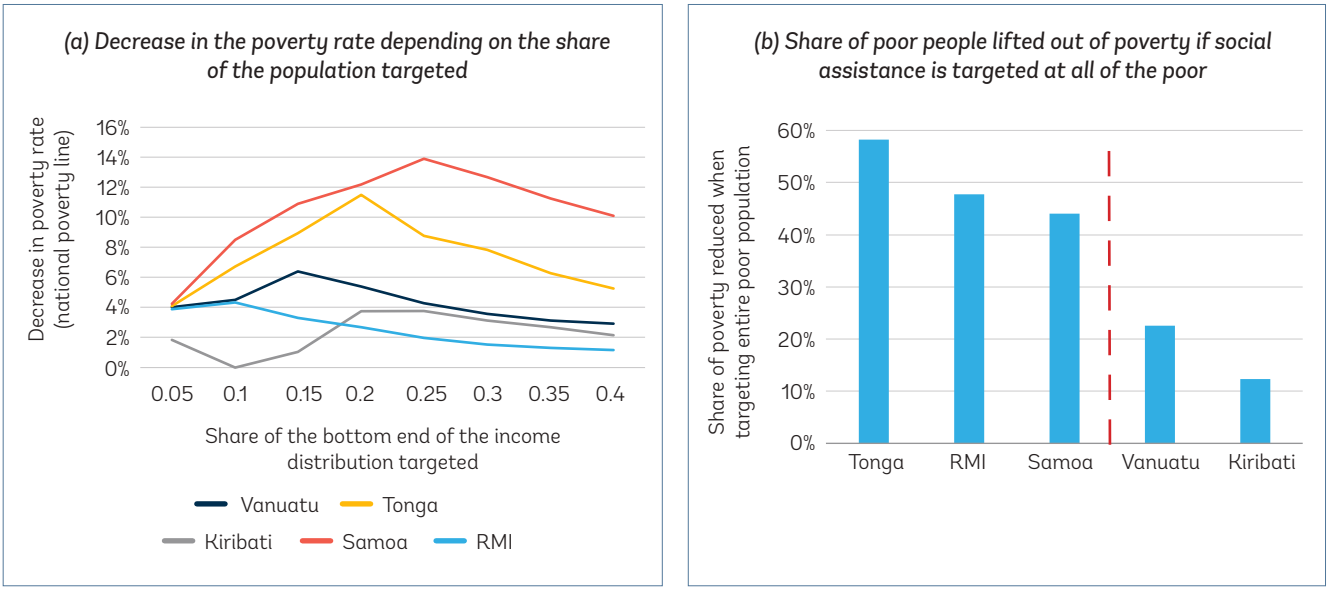
Figure 5.9: Social assistance spending has a significant impact on poverty rates



Note: The business-as-usual scenario (BAU) involves no increase in social assistance spending beyond existing levels. National poverty lines are used in Vanuatu, Kiribati, and RMI. In Tonga, the bottom 20 percent of the income distribution is instead used because there is no national poverty line using monetary poverty, while in Samoa, a bank-constructed poverty line which differs slightly from the national poverty line is adopted.

9. Exclusion and inclusion errors in these simulations are assumed to be 20 percent, which is relatively high by global standards, reflecting the fact that administrative systems needed to deliver such payments are nascent in the PIC-9.

Figure 5.10: There is a significant decrease in poverty as a result of social assistance spending of 1.5 percent of GDP, though targeting matters

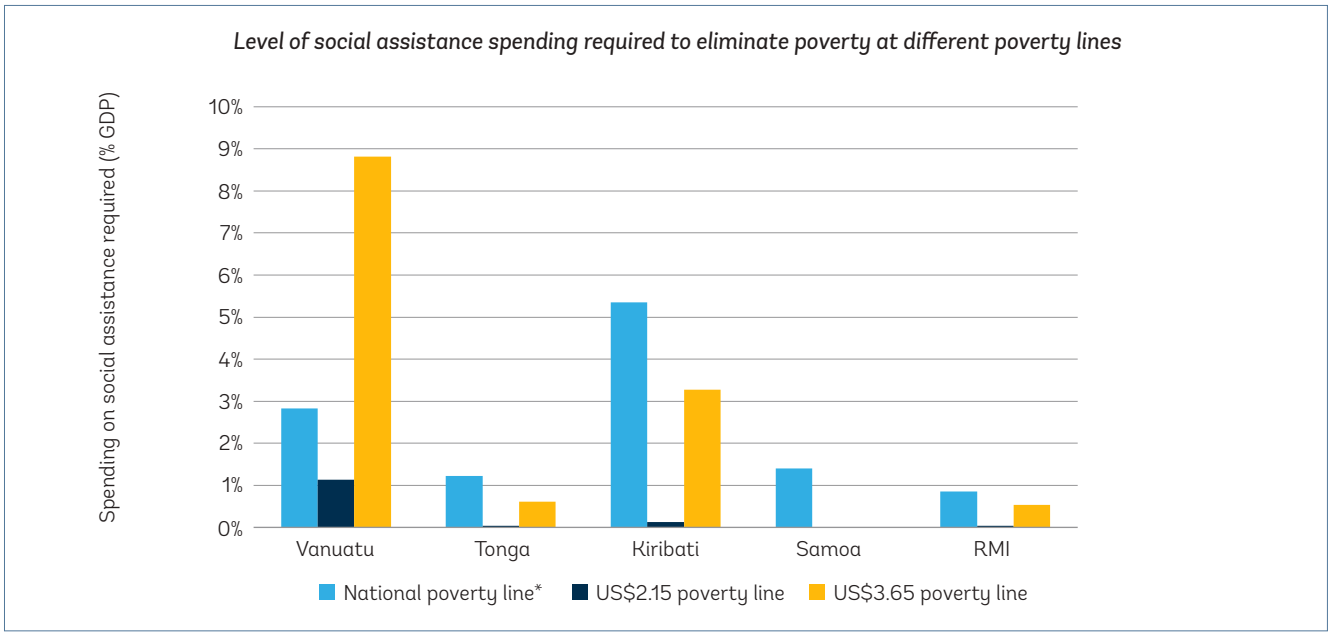


Simulations point to significant impacts on poverty from the introduction of targeted social assistance programs. These impacts are most notable in Tonga, Samoa, and RMI—where rates of poverty, as measured by the national poverty line—are halved, leading to a reduction in poverty incidence of between 12 and 4 percent points (Figure 5.9). For a given budget envelope (comprising 1.5 percent of GDP), targeting matters to poverty reduction. Figure 5.10 shows that in Tonga and Samoa, decreases in poverty are maximized when social assistance is targeted towards the bottom 20 or 25 percent of the income distribution—narrower targeting than this results in too many households below the poverty line being excluded from programs, while more universal targeting reduces overall impact as benefit levels per households decline. In Kiribati and Vanuatu, the impacts on poverty incidence are less notable, though still significant. There are multiple reasons for this, including the depth of poverty in these countries relative to the poverty line (i.e., the poverty gap), which means payments may assist households but not push them above the national poverty line. This is a measurement issue, associated with the (normative) selection of a national poverty line—it does not mean that poor households do not benefit from social assistance. To take one example, where the bottom 20 percent of the income distribution are targeted in Vanuatu, the poverty gap—or the ratio by which the mean income of the poor falls below the poverty line—declines by 48 percent.

Another way to examine the relationship between targeted social assistance and poverty is to calculate the budget envelope needed to eliminate poverty.[10] There is wide variation between the PIC-9, given varying poverty profiles and national poverty lines. In the case of Samoa, Tonga, and RMI, relatively modest increases in spending on social assistance are sufficient to eliminate poverty in the simulations. In cases where the cost is higher, spending required is equivalent to spending on subsidies in some of the PIC-9—in the case of Kiribati and RMI, social assistance expenditure needed to eliminate poverty is less than current spending on copra subsidies.

10. National poverty lines, the US$2.15 international poverty line, and the US$3.65 poverty line for lower middle-income countries are modelled here. No exclusion or inclusion errors.

Figure 5.11: **Social assistance spending needed to eliminate poverty varies based on the poverty measure selected**



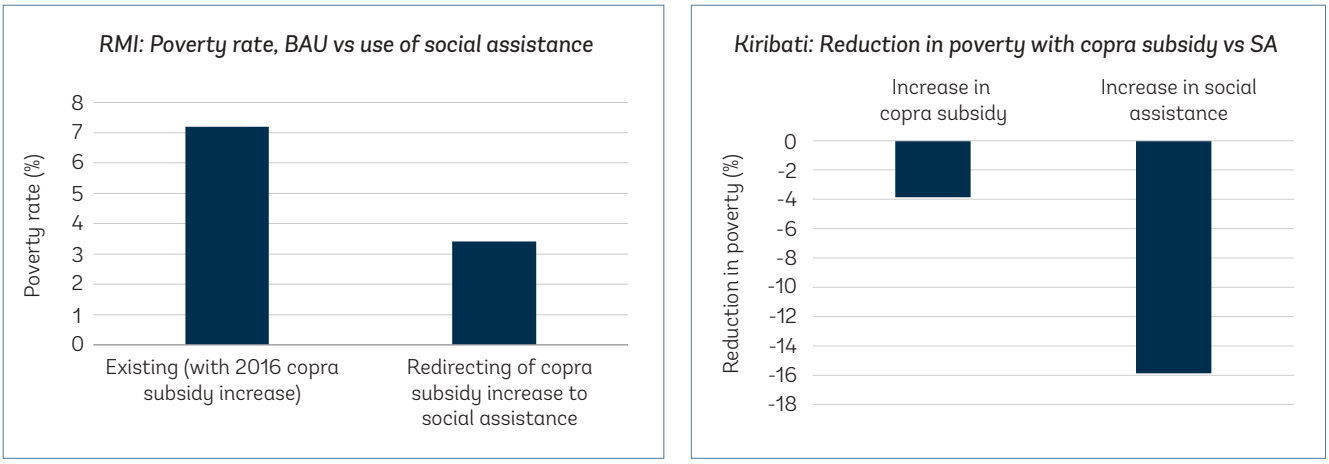
*National poverty lines are used in Vanuatu, Kiribati, and RMI. In Tonga, the bottom 20 percent of the income distribution is instead used because there is no national poverty line using monetary poverty; while in Samoa, a bank-constructed poverty line which differs slightly from the national poverty line is adopted.

5.6.2 Improving the allocative efficiency of copra subsidies is also a priority

While increasing social assistance spending is a priority in most of the PIC-9, in the case of Kiribati and RMI, a focus should be on improving the allocative efficiency of spending on copra subsidies. As was noted earlier, Kiribati and RMI spend approximately 7 and 3 percent of GDP on copra subsidies which aim to support households in outer islands. Such support is an inefficient way of targeting the poor, with benefits accruing unequally to those that have the ability and resources to harvest copra. Household survey data shows that households from across the income spectrum engage in copra production—only households in the top 20 percent of the income distribution in outer islands are less likely to engage in copra production, and 34 percent of such households still do so (relative to 44 percent of households in the bottom 20 percent of the income distribution).

The impact of redirecting copra subsidies to social assistance programs can be modelled in the same way as the impact of social assistance spending on poverty was modeled in the previous section. This is done for Kiribati and RMI in Figure 5.12. In Kiribati, two simulations are undertaken: (i) a comparison of the poverty impacts of the 2022 doubling of the copra subsidy to $A 4/kilogram are contrasted with the use of those funds on a poverty targeted social assistance program that targets the poorest 20 percent of households, and (ii) the cost of achieving the same level of poverty reduction as the A$ 4/kilo copra price through a poverty targeted social assistance program. In RMI, the scenario which is modelled involves a reversion to the 2016 subsidy of US$0.30/pound, and use of the US$3 million (1.2 percent GDP) savings this would generate on a social assistance program that targets the poorest 10 percent of households.

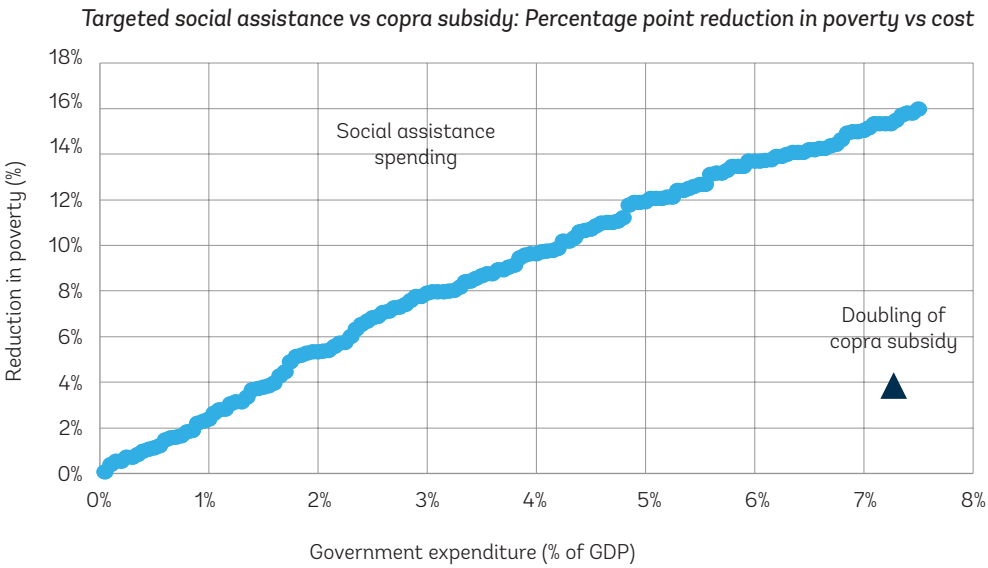
Figure 5.12: **Social assistance spending is a more efficient way to reduce poverty than copra subsidies**



The impacts on poverty of redirecting increases in copra subsidies towards cash transfer programs are very significant, reducing poverty by more than half in RMI, and by almost three-quarters in Kiribati. In RMI, use of US$3 million (1.2 percent GDP) in savings that would accrue from reversion to the 2016 copra subsidy on social assistance would more than halve poverty (from 7.2 to 3.4 percent of households). In Kiribati, reverting to the 2021 copra subsidy (A$ 2/kilo) and directing the associated A$ 20 million (7.3 percent of GDP) in fiscal savings to a poverty-targeted social assistance program would reduce the share of households in poverty by 72 percent (from 21.9 to 6.1 percent of households).[11] This level of spending on social assistance would be high by global standards. The modelling is therefore extended in Figure 5.13 to assess the poverty reduction impacts of greater expenditure on targeted social assistance. It is clear from the graph that targeted cash transfers are more efficient than copra subsidies in reducing poverty in Kiribati, even when accounting for significant inclusion and exclusion errors. In fact, a 1.5 percent increase in social assistance spending targeted to the entire poor population has an almost identical reduction of poverty than the doubling of the copra subsidy (3.8 percentage points).

11. Assumes targeting to the bottom 20 percent of the income distribution, with 20 percent inclusion and exclusion errors.

Figure 5.13: **Poverty reduction impacts of different types of social assistance spending**



Use of social assistance to reduce poverty instead of copra subsidies would generate significant fiscal savings. In the case of Kiribati, were the government to use a poverty targeted social assistance program to achieve the same reduction in poverty as the doubling of the copra price implemented in 2022—A$ 4.4 million (1.6 percent of GDP) would be required, implying a fiscal saving of A$ 15.6 million (5.7 percent of GDP).

5.7 Enhanced social protection will require investment in programs and delivery systems

COVID-19 highlighted the challenges faced by countries without existing social assistance programs in supporting poor and vulnerable households. The absence of social assistance programs meant that governments were: (i) not well informed about which households were poor or vulnerable, given that lists of poor households which would normally be targeted in a social assistance program were largely absent; and (ii) did not have systems or channels in place to deliver assistance to the poor and vulnerable. This limited the efficacy of the response. Social protection mechanisms were used to support the vulnerable in the PIC-9, but their use was highly imperfect, and coverage was not as extensive as it could have been. As a result, many PIC-9 governments have since sought to develop social registries and strengthen delivery systems so that they can better support households in times of crisis. Linking such programs to employment and productive inclusion services is also a priority for some PIC-9 governments and has potential to enhance the poverty alleviation impacts of such investments.

Investments in social protection programs and delivery systems will involve up-front costs which are difficult to quantify. Such costs are associated with the establishment of social registries, investments in management information systems, introduction of digital payments, and outreach to vulnerable groups. In the PIC-9, improved collection and use of information

on the socioeconomic situation of poor or vulnerable households is especially important, with the establishment of a consolidated social registry of such households and their information (including payment details) a goal in the medium to long term. Examples of costs involved in the establishment of social registries include staffing, software and IT infrastructure, training and capacity building, and facilities costs. Experience in countries like Tonga, which has recently developed a cash transfer program in support of secondary school attendance among households in the poorest 10 percent of the income distribution, suggests an upfront investment of several hundred thousand US dollars is needed. But such costs vary considerably, depending on the design of the program and the context in which it is implemented. The establishment of such systems also requires time, meaning it cannot be ex-post.

In the long-run, investments in delivery systems facilitate improved and more efficient support to the poor and vulnerable, generating fiscal savings as well as positive economic and social impacts. Improved program design—such as through the use of digital payments—reduces administrative costs in the long run. In the example of Mexico's Prospera program, investments in systems equipment, design, and procedures reduced administrative costs in the program's first seven years from 51 percent to 6 percent of the program's overall budget. More significant in the case of Kiribati and RMI, however, are the potential fiscal savings that could accrue from improved targeting of households when compared to use of inefficient support mechanisms like copra subsidies.

Such investments will also help prepare the PIC-9 for future shocks, increasing the ability of governments to support the poor and vulnerable in times of crisis. Social registries of households that may need support, coupled with payment delivery systems, are an important aspect of adaptive social protection systems. As noted, upfront investments are needed to establish these systems, and these can take time, meaning investments cannot wait until an economic or natural shock occurs. Such systems also require ongoing investment in information updates and modifications to ensure they are fit for purpose. To be most effective, they should be couples with employment and productive inclusion services that provide exit strategies for beneficiaries and help make such programs sustainable in the long run.

5.8 How can the PIC-9 strengthen social protection?

Social protection is a key enabler of human capital accumulation and poverty alleviation. Social protection measures enhance resilience by insuring against negative impacts on wellbeing through shocks; foster equity by combating chronic poverty and ensuring a minimum income or consumption floor; and create opportunity through promoting investments in human capital (education and health) and linking people to gainful employment.

Social protection in the PIC-9 is generally inadequate, and this is especially so in the case of social assistance. Coverage and spending on formal social protection is below regional averages or comparator countries, while informal safety nets, though important, are regressive and insufficient for the task of protecting poor households. At the same time, some of the PIC-9 spend a significant share of their budgets seeking to support poor and vulnerable households through inefficient instruments, such as the copra subsidies implemented by Kiribati and RMI.

A number of recommendations follow:

a. **PIC-9 countries should allocate more financial resources to social assistance, with a view to bringing them towards the global average of 1.5 percent of GDP.** There is a strong case for increasing spending on formal social assistance, given the vulnerability of PIC-9 economies to shocks, low levels of current spending, and international evidence of the positive impact that cash transfer programs and related measures can have on the poor and vulnerable. Increased spending, coupled with improved targeting that results from the gradual transformation of existing programs, will expand both the coverage and adequacy of safety nets in the PIC-9.

b. **Improving the targeting of social assistance will reduce poverty, especially when coupled with spending increases.** Simulations suggest that poverty-targeted cash transfers can significantly impact poverty levels, with spending of 1.5 percent of GDP effectively halving poverty in Samoa, Tonga, and RMI. In Vanuatu, the poverty gap—or the ratio by which the mean income of the poor falls below the poverty line—declines by 40 percent as a result of such spending. Simulations also suggest that relatively modest spending on well-targeted social assistance programs can eliminate poverty (defined as respective national poverty lines) in these countries, and that while spending to achieve this would need to be higher in Vanuatu and Kiribati, it would not be larger than current levels of spending on copra subsidies in Kiribati and RMI.

c. **In the case of Kiribati and RMI, a focus should be on improving the allocative efficiency of spending on copra subsidies.** Such support is an inefficient way of targeting the poor, with benefits accruing unequally to those who have the ability and resources to harvest copra. The impacts on poverty of redirecting a portion of the copra subsidy towards cash transfer programs are very significant in both countries; in RMI, use of US$3 million (1.2 percent GDP) in savings associated with a reversion to the 2016 copra subsidy on a poverty targeted cash transfer program would more than halve poverty (from 7.2 to 3.4 percent of households), while in Kiribati, use of fiscal savings of A$ 20 million (7.3 percent of GDP) that would result from reverting to the 2021 copra subsidy (A$ 2/kilo) would reduce the share of households in poverty by 72 percent (from 21.9 to 6.1 percent of households).

d. **Use of social assistance to reduce poverty instead of copra subsidies would also generate significant fiscal savings.** In the case of Kiribati, use of a poverty targeted social assistance program to achieve the same reduction in poverty as the doubling of the copra price implemented in 2022, would generate a fiscal saving of A$ 15.6 million (5.7 percent of GDP).

e. **Investments in programs and delivery systems are needed to facilitate improved support to the poor and vulnerable.** Improved collection and use of information on the socioeconomic situation of poor or vulnerable households is especially important, with the establishment of a consolidated social registry of such households and their information (including payment details) important in the long term to helping the PIC-9 respond to future shocks through social assistance support.

f. **There is also a case for the PIC-9 to invest in employment and productive inclusion services, which are currently either absent or very limited in reach and scope, and to link these to an expansion of social assistance.** Such programs can help to assist in overcoming political opposition to cash transfers, while also making social assistance programs more sustainable by providing exit strategies and support for beneficiaries. The case for increased spending is especially compelling for services related to labor mobility and migration, given its significant returns. For Kiribati, Tuvalu, Tonga, Vanuatu, Samoa, and Nauru, labor mobility-related employment services can both ensure that the most is made of preferential access to the Australian and New Zealand labor markets, while also supporting reintegration of returning workers. For the COFA countries (Palau, FSM, and RMI), the priority should be on training and education that will improve outcomes for migrants. A priority is to ensure that skills and vocational education and training meet the needs of employers—labor market intermediation services, informed by up-to-date assessments of labor market demand for skills, can assist. Reforms to lower the costs of sending and receiving remittances can also help to maximize the societal benefits of labor mobility and migration.

g. **Increased spending on social protection can be financed by measures to increase domestic revenues outlined in Chapter 2.** This is important, given that the PIC-9 are projected to have very limited fiscal space over the coming 20 years, as noted in Chapter 1. In Kiribati and RMI, spending reallocation from the copra subsidies could instead finance such initiatives, with better poverty alleviation results.

h. **Reform of social insurance is complex and specific to country context, which varies across the PIC-9.** In general, the COFA countries with defined benefits schemes should prioritize the sustainability of their schemes, given past challenges in this area coupled with large-scale migration. In the case of defined-contribution schemes that exist in other PIC-9, the priorities are (in)adequacy of pension savings and in some cases low levels of coverage, which are particularly evident in the informal sector. Age of retirement, contributions, investment performance, rules relating to withdraw, and the formalization of employment are important determinants (Box 5.4). Factors to consider with a view to these areas include:

   i. The life expectancy at the retirement age in each country

   ii. Provisions in place for pre-retirement withdrawals. For those countries without partial withdrawals, it is suggested that there either be provisions for partial withdrawals for extreme hardship conditions such as severe medical issues, economic shocks, or extended unemployment

   iii. Provisions by which benefits can be withdrawn in association with unemployment

   iv. Average balances at retirement age

   v. The age for eligibility for non-contributory social assistance (social pensions)

   vi. The form of the payout, with lump sum payments presenting problems for adequacy.

Box 5.4: Country-specific reforms of defined-contribution pension schemes

- **Kiribati** could (i) consider increasing the normal retirement age from 50 to 65 with a transition and eliminating early withdrawal at age 45; (ii) set up limits as to the proportion of the individual account accumulation which can be withdrawn for unemployment; (iii) review the criteria for withdrawal in the case of disability; and (iv) set up limits as to the proportion of the individual account accumulation which can be withdrawn for other economic shocks.
- **Nauru** has just established their Superannuation Fund and generally parametric changes should be avoided so close to establishment. Perhaps only in the future they should consider an increase in the retirement age from 55 to 65 with early withdrawal provisions for hardship/shocks.
- **Tonga** could consider a gradual increase in the retirement age from 60 to 65. However, it would be important to better understand early withdrawal provisions (age 50–60). Withdrawals in cases of redundancy or extended unemployment may need to be capped as a proportion of account accumulations. Withdrawals permitted on medical grounds should remain.
- **Samoa** could consider a gradual increase in the retirement age from 55 to 65 and may want to consider a gradual increase in the early retirement age from 50 to 55. It would be important to examine the distribution of account accumulations by age and work when establishing a reasonable limit and guidelines for early withdrawal.
- **Vanuatu** already has a segregation of accounts with 50 percent going to a retirement savings account, which can be withdrawn at age 55; and 25 percent goes to Medisave and Investment accounts respectively. The age and conditions for withdrawal for these last two accounts need to be investigated further. The eligibility age from the retirement savings account could be gradually increased from age 55 to age 65.
- **Tuvalu** has a scheme which offers multiple benefits at different ages. It seems that an individual can receive lump-sum benefits from the retirement account at age 46, while they need to wait to age 65 to get an annuity. Tuvalu has a relatively high total contribution rate of 23 percent so it is possible that the lump-sum benefit at an early age may be substantial for those who have contributed for many years. It is conceivable that Tuvalu could increase the eligibility age for receipt of the lump-sum but discussions with counterparts would be needed to better understand benefit adequacy, the retirement patterns, and the possible tradeoffs between the early receipt of benefits and the ability to enforce a relatively high contribution rate.

Annexes

A.1 Annex A (Revenue)

A.1.1 Notes on revenue estimates

This annex explains the methodology behind the calculation of revenue estimates featured in the revenue chapter and executive summary. Suggested reforms are informed by the analysis undertaken in the revenue chapter. The impacts of reforms use the average performance of peers (or in some cases, of specific peers) as targets. In the case of a revenue indicator, the authors attribute the difference in collection to reform impact. For example, the authors take the average property tax collection of peers and attribute the difference with the property tax collection of the country under consideration as the potential gain associated with reform. In the case of a policy or performance indicator, the authors model the difference in revenue collection of a reform that helps the country achieve the level of peers. For example, the authors take the average C-efficiency (a VAT metric) of a high-performing country. They then use the change in C-efficiency required by a reforming country to meet the benchmark of the high-performer in the VAT revenue composition formula for the country in question. This results in a higher VAT revenue figure, which is taken as the impact of reforms that can help achieve that efficiency.

Estimates come with large margins of error and are intended to illustrate the importance of reforms. When describing reform impacts, the tables typically indicate that the estimates are an upper bound with language of 'up to' added prior to the estimated figure. This is because reforms may fall short due to implementation challenges. Nevertheless, it is worth recognizing that the reforms discussed have an even higher theoretical payoff; that is, the actual numbers included are not a theoretical maximum, and include the fact that there are revenue losses due to policy and administrative gaps that are also present in the case of the best-performing peers used as the benchmark. Moreover, the reform gains are not expected within one year after a reform is implemented. Indeed, several of the reforms discussed require gradual implementation across several years. Thus, thinking of reform impact as taking place in a time 't+1' is too simplistic. Behavioral effects may also come into play which impact the reform, and which are not accounted for in the estimates. Overall, the reform estimates contained here are subject to large margins of error and are intended to illustrate a sense of the magnitude and thus importance of the reforms. More accurate estimates would be feasible only with access to much more granular data and more sophisticated modeling techniques that are outside the scope of this report. Table A.1 lists GDP and exchange rate figures used to convert calculation from units in percentage of GDP into USD for the revenue estimate table. Table A.2 lists the unique revenue estimate methodologies and explains them.

Table A.1: GDP and exchange rates

Country	GDP (LCU millions)	USD to 1 LCU
Kiribati	307	0.67
RMI	243	1
FSM	405	1
Palau	213	1
Samoa	2,169	0.36
Tonga	1,143	0.43
Tuvalu	85	0.67
Vanuatu	107,066	0.008
Nauru	176	0.67

Source: Country data

Table A.2: Estimating the revenue impact of reforms

Tax Type	Reform	Calculation
Consumption	Introduce a broad consumption tax	The estimate is the average GST collection of peers
Consumption	Move from GRT to a VAT with a broad base (low threshold and limited exemptions)	Benchmark GST revenue against the average VAT revenue of peers, attribute difference to reform potential gain from changing regimes
Consumption	Increase VAT statutory rate in-line with peers	Assume constant C efficiency and consumption and set growth in revenue equal to growth in the VAT rate (as per C-efficiency decomposition) required to reach the level of peers (15 percent)
Consumption	Improve VAT efficiency to the level of a comparator, focusing on improvements in compliance management	The growth in efficiency to achieve comparator's C-efficiency can be multiplied by the country's average collection to represent potential collection under higher efficiency, holding consumption and the VAT rate constant
Consumption	Improve VAT compliance management through administrative reforms	The authors estimated the VAT compliance gap for Tonga by first using consumption data and the standard rate to calculate theoretical potential collection. The authors used a policy gap estimate from IMF literature, subtracted it from theoretical collection, and assumed the remainder of the gap between actual and theoretical collection is the compliance gap. However, the authors used a conservative estimate of half of the compliance gap reported in the paper, due to: (i) inability to disentangle VAT threshold portion from the compliance gap estimate, and (ii) tendency for some VAT compliance gaps to remain even in high-capacity countries, meaning fully closing the compliance gap is not realistic
PIT	Introduce a PIT regime	The estimate is the average PIT collection of peers
PIT	Collect more from PIT, through adding a new top PIT rate, rationalizing exemptions, and/or improvements in compliance management	Benchmark PIT revenue against the average level of peers, attribute difference to reform potential
CIT	Introduce a CIT regime	The estimate is the average CIT collection of peers

Tax Type	Reform	Calculation
CIT	Improve CIT productivity, through a focus on compliance management, including: (i) rolling out e-filing and e-payment; (ii) enforcing on-time filing; (iii) dedicated focus on compliance management of largest businesses	Benchmark country average CIT productivity against the average of peers. The percentage change to achieve peer-level productivity can be applied to average collection to estimate collection under higher productivity, assuming no change to the scale of potential taxable activities (reported and unreported corporate income)
Property	Strengthen property tax collection to the level of peers	Benchmark property tax revenue against the average level of peers, attribute difference to reform potential
Tax Expenditures	Reduce tax exemptions and zero ratings on consumption tax, excise tax, and customs duties, particularly for SOE fuel imports	Use estimates from literature[1]
Fishing Revenue	Regional reform to increase flexibility and transferability of a PNA VDS day (pooling, duration, transferability)	Multiply estimated impact of reforms on price increase of VDS days by annual allocation of days

Note: Averages are over the period 2017–2021 unless otherwise noted. The sample of peers varies with data availability. All estimates in USD calculated using 2021 GDP data shared by country teams and the exchange rates in Table A.1. Other data listed in revenue chapter.

1. IMF (2022).

A.2 Technical appendix (Education)

A.2.1 Estimating interim learning poverty for Pacific Island Countries[2]

As of October 2022, learning poverty numbers had been released for 121 countries, but not for the PICs. Thus, the main purpose of this note is to estimate interim learning poverty figures in all 15 PICs by determining an MPL threshold aligned with the GPF. Such estimates are meant to provide a starting point for discussions with countries and regional partners about the learning crisis in the Pacific Islands and to accelerate the production of official learning poverty estimates. It is also hoped that the note can help usher broader sharing and use of Pacific Islands Literacy and Numeracy Assessment (PILNA) data, the most important piece of information about foundational skills in the region. This technical note describes how interim learning poverty in the PICs was estimated and then provides 'interim learning poverty estimates'.

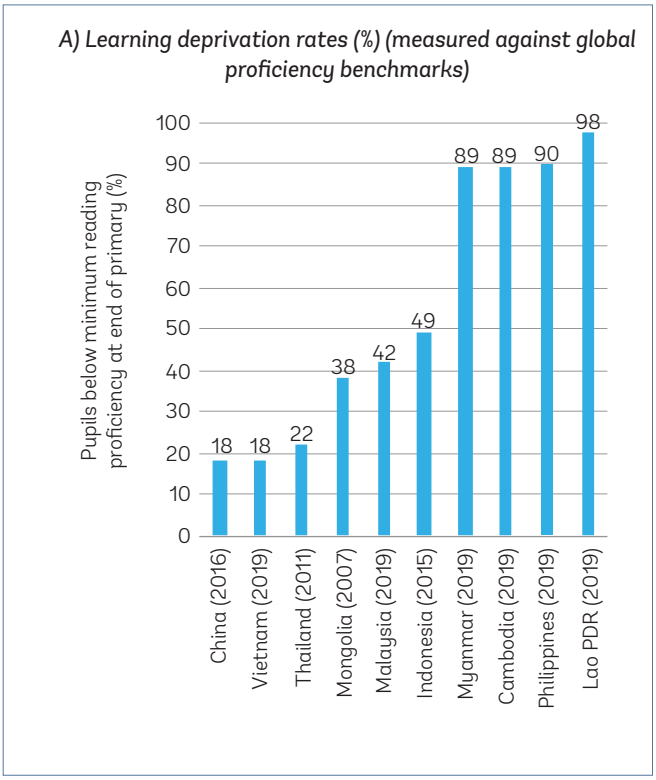
Most PICs have participated in the PILNA, which has measured reading, writing, and numeracy in Grades 4 and 6 every three years since 2012. As the PILNA results have not yet been mapped to the MPL,[3] the Pacific Islands do not have official learning deprivation numbers. However, given that the PILNA survey is representative at the country level and is psychometrically sound, it appears to be an appropriate tool to measure learning deprivation as part of an estimation of learning poverty.

While there are no official learning deprivation figures available, what is available is the percentage of students who reach PILNA's definition of minimum proficiency ('Level 5'). However, using those numbers as a gauge for learning deprivation would suggest that students in PICs substantially outperform their peers in countries with similar income levels (see Figure A.1). For instance, the per capita incomes of the Philippines and Samoa are roughly similar. Yet, in the Philippines an estimated 90 percent of students are not reading at global benchmarks (i.e., they are learning deprived) while, in Samoa, the equivalent number (using PILNA's benchmark) is 39 percent.

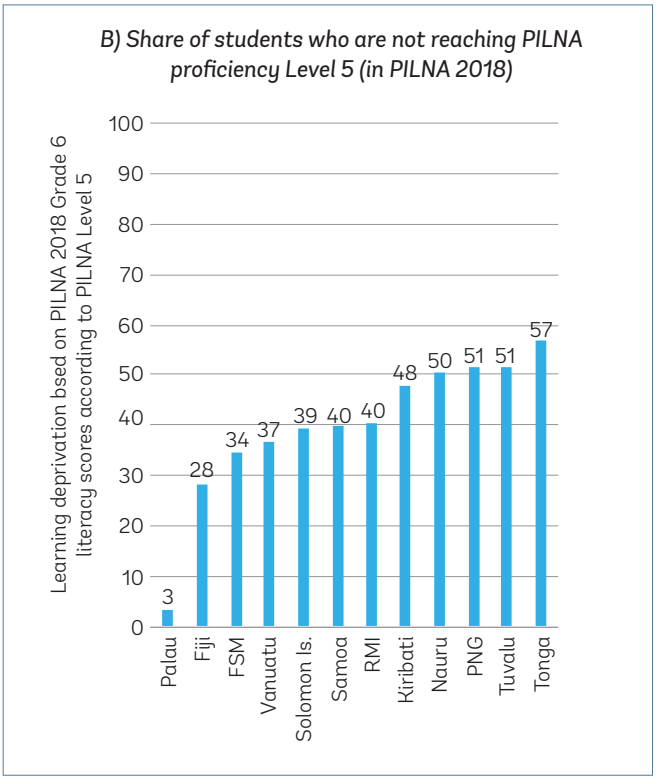
Observing this large difference in learning deprivation (between several East Asian countries and PICs), this note seeks to explore whether PICs' education systems are relatively high-performing systems, or if it is possible that the 'benchmark' against which they are measured is 'lower' (i.e., 'relatively easier') than the benchmark against which the global peers are measured.

2. Summary of longer technical note by Paul Cahu and Lars Sondergaard: "Estimating interim learning poverty for Pacific Island Countries", available upon request.
3. Such mapping has not been done because this was not part of the agreement reached among the countries and the agencies managing the assessment. However, discussions are underway to conduct such mapping.

Figure A.1: **Share of students (around age 10) who meet minimum proficiency levels, according to global benchmarks (left graph) and PILNA's benchmarks (right graph)**



Source: World Bank Learning Poverty database.



Source: World Bank calculations using PILNA 2018 microdata.

To derive learning deprivation from the PILNA test scores, one needs to determine the position of the MPL (i.e., the global minimum threshold) on the PILNA scale. This note uses the descriptions of proficiency levels in the PILNA guidelines to help identify that threshold. To validate the credibility of the mapping, the 'interim learning poverty estimates' were compared to the learning poverty estimates of other countries at the same income level.

Gauging learning deprivation from PILNA proficiency level descriptions

According to the Educational Quality and Assessment Program (EQAP) 2019, PILNA's minimum proficiency level is defined as 'Level 5' on the PILNA scale.[4] But how does that level compare to the global MPL? To fully answer this question would require a detailed analysis of the items in the PILNA, with experts carefully mapping each item to the GPF. For this note, however, PILNA's publicly available definitions of literacy were relied on to make a cruder assessment.

4. EQAP 2019, Table 2.5.

Table A.3 compares the descriptions of the GPF's MPL with the PILNA's formal scale (which is publicly available). The skills required by students at PILNA Level 5 appear to be the minimum of what is required in the GPF's MPL, and some skills required at PILNA Level 6 are also required at the MPL. As such, the GPF's MPL probably lies somewhere between Levels 5 and 6 on the PILNA scale.[5] Put differently, the reason why learning deprivation appears much lower in PICs compared to East Asian countries in figure A.1 is because the benchmark against which students are measured are different; the current benchmark for PILNA appears "easier" to pass than the global benchmark.

Table A.3: PILNA proficiency levels compared with the Global Proficiency Framework's Minimum Proficiency Level

GPF MPL	PILNA definition of proficiency in literacy	PILNA proficiency level
Students independently and fluently read simple, short narrative and expository texts. They locate explicitly stated information. They interpret and give some explanations about the key ideas in these texts. They provide simple, personal opinions or judgements about the information, events, and characters in a text.	Locate a paraphrase of an idea or detail in a less familiar text, such as a procedure. Connect ideas across several adjacent sentences to make an interpretation, such as the reason for an event. Generalize about a key feature, such as a character trait, from prominent clues across a text. Critically evaluate the logical purpose of a simple, straightforward text. Write a text with minimal awareness of genre, such as a story with some details that is largely descriptive.	Level 5 (487.5-512)
	Locate information that is surrounded by related ideas. Make a range of simple inferences from less familiar text types. Provide evidence from the text to support an interpretation. Provide a simple reason to support a personal judgment. Write a text with some features of the genre, such as a story with a setting or plot, where ideas are related. Spell basic words and use a small variety of sentence structures.	Level 6 (512.5-537)
	Identify an idea developed across several sentences and make subtle distinctions between related ideas. Interpret ideas in less familiar text types, such as the reason for an instruction or an action in a poem. Apply an idea to a different context, using evidence from the text. Derive the author's intent when clues are prominent. Write a text with a range of features of the genre, such as a story with main events and an attempt at character, and with some coherence in structure, such as the sequencing of events. Use a variety of vocabulary and punctuation, such as commas and capital letters.	Level 7 (537.5-587)

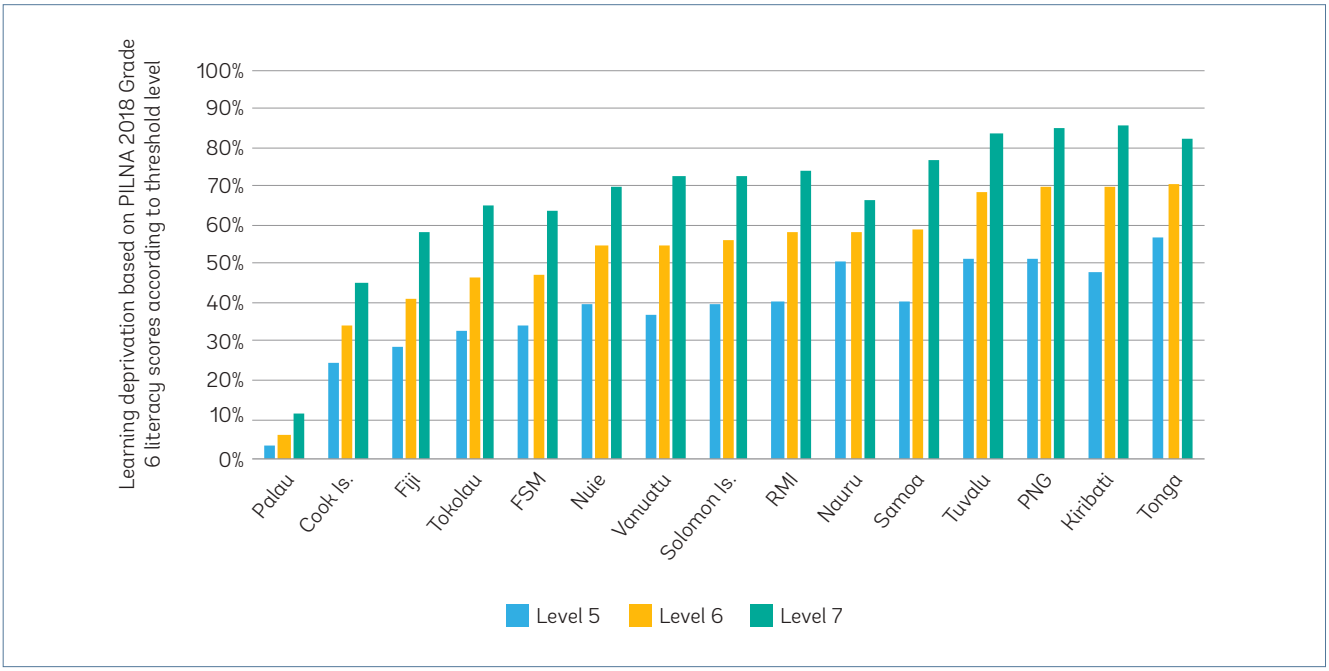
Note: Numbers in brackets indicate the range of values by level in the proficiency score of the PILNA reading scale for Grade 6.
Source: EQAP 2019 and UNESCO 2021.

5. According to UIS Global Alliance for Monitoring Learning (GAML) website, PICs are allowed to use Level 5 on the PILNA reading test for reporting on SDG 4.1.1b, at least as an interim measure until formal policy linking is carried out https://gaml.uis.unesco.org/wp-content/uploads/sites/2/2021/03/Minimum-Proficiency-Levels-MPLs.pdf

Interim learning poverty estimates based on PILNA

To calculate interim learning poverty, estimates were needed of both 'learning deprivation' and 'school deprivation'. To compute the former, the PILNA 2018 reading scores of pupils tested at Grade 6 were used.[6] Based on the discussion above, PILNA Level 6 was used as the threshold to calculate children who are in 'learning deprivation' (Levels 5 and 7 are used to calculate lower and upper band estimates, respectively). The results are displayed in Figure A.2 and Table A.4. Learning deprivation stands at 55 percent for the Pacific Islands region as a whole if minimum reading proficiency is set at Level 6. That is, of the children who are in school, on average, 55 percent are not learning to read sufficiently well based on the global MPL. The rate of learning deprivation varies from 6 percent in Palau to 71 percent in Tonga.[7]

Figure A.2: Share of Grade 6 pupils whose literacy score is below the threshold in PILNA 2018



Source: Authors' calculations using PILNA 2018 grade 6 microdata.

6. Using the scores of Grade 4 students (who are also assessed by the PILNA) would obviously increase the estimates of learning deprivation.
7. It is worth noting that the ranking of PICs (by degree of learning deprivation) is sensitive to the threshold chosen for the MPL, as the distribution of scores is not similar for all PICs.

Table A.4: Learning deprivation estimates according to PILNA 2018 proficiency threshold for Grade 6 students

Country	Level 5	Level 6	Level 7
Palau	3%	6%	12%
Cook Is.	24%	34%	45%
Fiji	28%	41%	58%
Tokelau	33%	47%	65%
FSM	34%	47%	64%
Nuie	39%	55%	70%
Vanuatu	37%	55%	72%
Solomon Is.	39%	56%	72%
RMI	40%	58%	74%
Nauru	50%	58%	66%
Samoa	40%	59%	77%
Tuvalu	51%	69%	83%
PNG	51%	70%	85%
Kiribati	48%	70%	86%
Tonga	57%	71%	82%
All PILNA countries	**40%**	**55%**	**70%**

Note: The Level 5 threshold is 487.5 points, Level 6 is 512.5 points, and Level 7 is 537.5 points. Based on the Level 6 threshold, pupils whose literacy score is below 512.5 would be considered learning deprived. Shares are computed using sample weights.
Source: Authors' computations based on PILNA 2018 microdata.

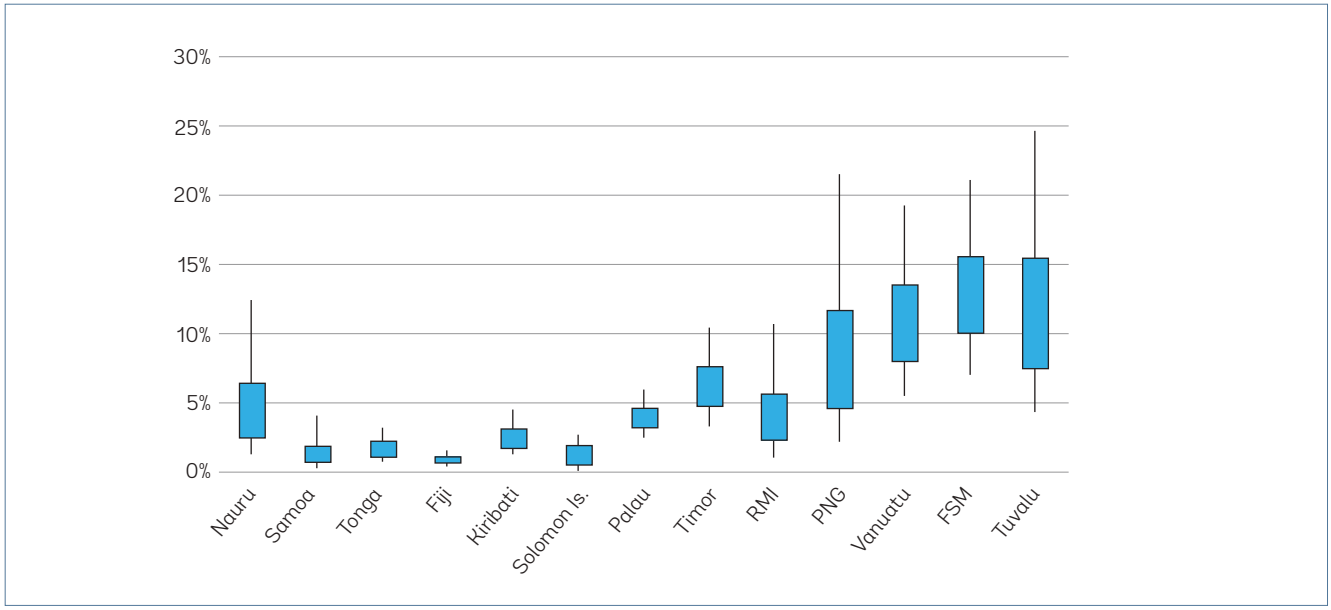
Computing school participation and interim learning poverty based on UNESCO Institute for Statistics (UIS) participation data

The school deprivation component of the learning poverty measures is equal to one minus the total net enrolment rate in primary school. Official EdStats data were used to calculate school deprivation. However, most country data are a few years old and may not be fully consistent with what can be inferred from both the latest enrolment statistics from administrative sources and the demographic census in each country. Several North Pacific countries (such as RMI) have witnessed massive and unexpected out-migration of their populations. Therefore, computing enrolment rates by comparing the number of pupils enrolled with the projected population tends to overestimate the rate of out-of-school children. Conversely, in some South Pacific countries (such as Vanuatu and Samoa), demographic growth has been more resilient than expected, leading to potential underestimation of the rate of out-of-school children. Moreover, in some countries, such as Solomon Islands, the reported data vary considerably over the years.

To address this, an uncertainty range around the latest EdStats estimates was computed. It was also assumed that the true out-of-school children rate is distributed following a normal distribution, using either the country's actual standard deviation over the last decade when it can be computed or the regional value when not enough data points are reported.

This method is imperfect and probably underestimates uncertainty, as the reported total enrolment rates are not symmetrically distributed. For example, the very high uncertainty for Solomon Islands is because its total enrolment rate reported varied substantially over the past decade. The UIS estimates for RMI (which is about 25 percent) seem implausibly high. Thus, for RMI, enrolment from the preliminary results of the last census were estimated, suggesting that approximately 7 percent of RMI children are out of school. The results are displayed in Figure A.3 and Table A.5.

Figure A.3: School deprivation estimates and uncertainty ranges



Note: The blue rectangle indicates the range of possible values whose probability is 50 percent. The vertical black line indicates the range of possible values whose probability is 90 percent.
Source: Authors' calculations from UIS and survey data.

Table A.5: Uncertainty range around out-of-school rates in PICs

	Percentile			
Country	**5th**	**25th**	**75th**	**95th**
Nauru	1.2%	2.4%	6.4%	12.5%
Samoa	0.3%	0.7%	1.9%	3.9%
Tonga	0.7%	1.2%	2.2%	3.5%
Fiji	0.5%	0.7%	1.1%	1.4%
Kiribati	1.2%	1.8%	3.2%	4.8%
Solomon Is.	0.2%	0.5%	1.3%	2.8%
Palau	2.5%	3.3%	4.7%	6.1%
RMI	1.1%	2.2%	5.6%	10.8%
PNG	2.2%	4.5%	11.6%	21.5%
Vanuatu	5.3%	8.0%	13.5%	19.3%
FSM	7.0%	9.9%	15.6%	21.1%
Tuvalu	4.4%	7.5%	15.5%	24.6%

Note: Each column indicates the respective percentile in the distribution of the out-of-school rate, given the historical values of the primary net enrolment rates reported to UIS.
Source: Authors' calculations from UIS and survey data.

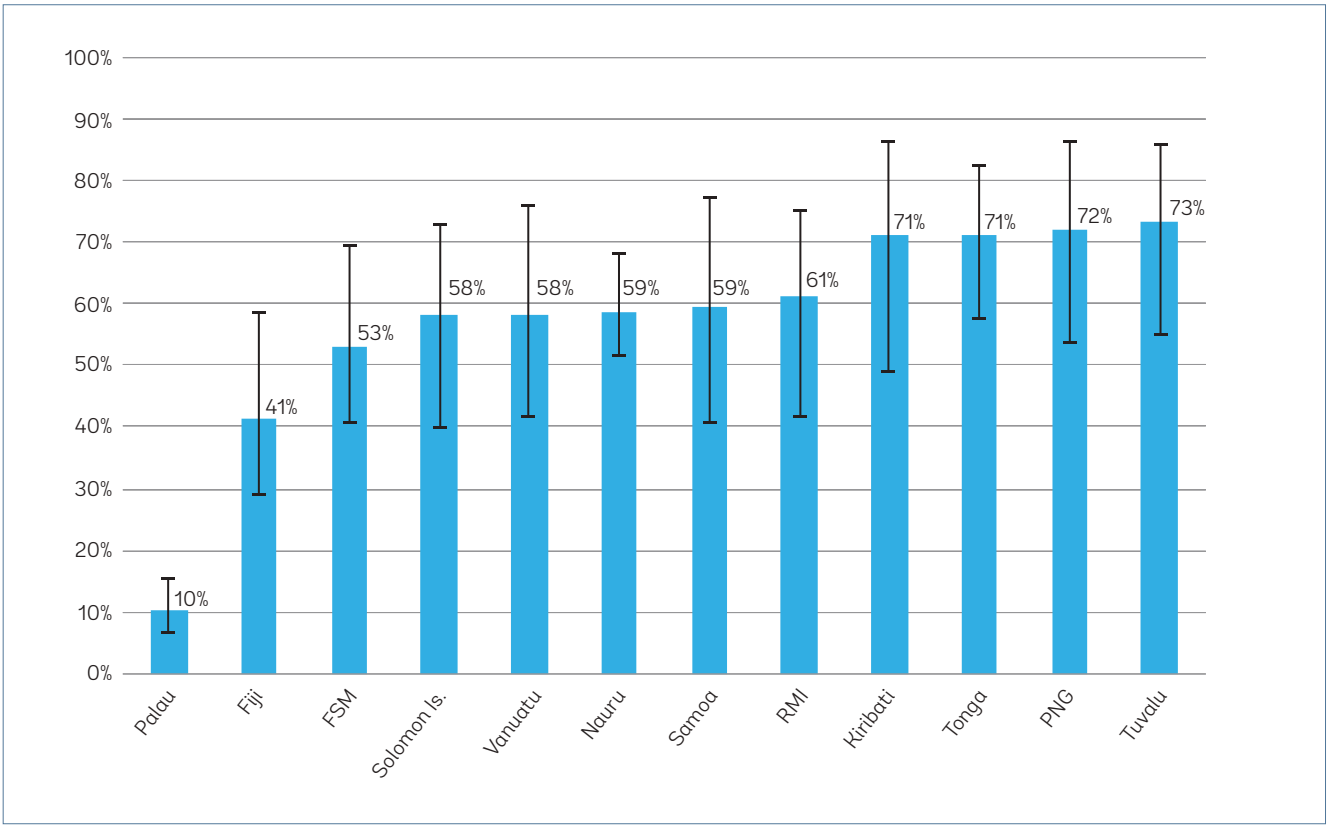
Table A.6 reports interim learning poverty estimates, which show that learning poverty is likely quite high in all PICs but Palau. Lower and upper bounds for the interim learning poverty estimates were computed by combining the bounds of the learning deprivation and school deprivation estimates.

Table A.6: Learning deprivation, school deprivation, and interim learning poverty estimates

Country	Learning deprivation[a]	School deprivation[b]	Interim learning poverty
Palau	6%	5%	10%
Fiji	41%	1%	41%
FSM	47%	10%	53%
Solomon Is.	56%	4%	58%
Vanuatu	55%	8%	58%
Nauru	58%	1%	59%
Samoa	59%	1%	59%
RMI	58%	7%	61%
Kiribati	70%	4%	71%
Tonga	71%	1%	71%
PNG	70%	7%	72%
Tuvalu	69%	15%	73%
All PICs	**55%**	**6%**	**58%**

[a] Numbers computed when the MPL is set at the central estimate of 512.5 points (Level 6). School deprivation uses the latest available net enrolment rate according to UIS, except for RMI, where the latest census data are used, as a massive drop in population was recorded that was not consistent with previous demographic and hence enrolment rate projections.
[b] Latest total net enrolment rate according to UIS except for RMI, where the latest census data are used.
Source: Authors' calculations.

Figure A.4: Interim learning poverty estimates with lower and upper ranges



Note: The black lines represents lower and upper ranges.
Source: Authors' calculations.

Table A.7: Estimated learning poverty rates for PICs with lower and upper ranges

Country	Lower range	Upper range	Mean estimates
Palau	7%	16%	10%
Fiji	29%	59%	41%
FSM	41%	70%	53%
Solomon Is.	40%	73%	58%
Vanuatu	42%	76%	58%
Nauru	52%	68%	59%
Samoa	40%	77%	59%
RMI	41%	75%	61%
Kiribati	49%	86%	71%
Tonga	58%	82%	71%
PNG	54%	86%	72%
Tuvalu	55%	86%	73%

Source: Authors' calculations.

Table A.8: OLS regression of numeracy foundational skills index on explanatory factors

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age	45**	45**	7	8*	12**	9*	13**
Age^2	-2**	-2**	-1	-1	-1	0	0
Girl	5**	3**	2	1	2	0	0
Boys in PIC						-10**	-12**
No disability		9**	8**	8**	8**	8**	9**
Mother's education							
Up to primary		46**	23**	21**	16**	22**	16**
Lower sec.		80**	43**	37**	28**	37**	28**
Upper sec.		91**	53**	44**	35**	43**	36**
Tertiary		67**	20**	10	3	10	3
Other		-69	-11	-11		-12	
Missing		75**	33**	30**	20*	29**	21*
Wealth score		1	2**	0	1*	1	2*
Domestic violence		-5**	-4**	-4**	-4**	-3**	-3**
ECE			12	13	10	15	
Grade			31**	29**	27**	30**	28**
Grade^2			-2**	-2**	-2**	-2**	-2**
Grade in PIC						-2**	-1
# Child books				2**	2**	3**	3**
Parents read stories				14**	14**	15**	14**
Taught in mother tongue					20**		20**
Country effect							
Tuvalu	35**	12*	5	7	10	25**	21**
Kiribati	-2	-19**	-17**	-8**	-8**	8	2
Tonga	64**	30**	26**	28**	28**	46**	39**
Samoa	4	-22**	-25	-21**	-21**	-3	-10
Intercept	-302**	-369**	-193**	-208**	-234**	-213**	-234**
# obs.	11,046	11,045	11,031	10,996	10,751	10,996	10,751
Adj. R^2	0.11	0.20	0.24	0.26	0.26	0.26	0.26

Note: The numeracy score was computed using a Rasch polytomous model. The KMO index is about 92 percent. The score is computed by pooling data from the latest MICS survey in Guyana, Suriname, Guinea-Bissau, Sao Tome and Principe, Tonga, Samoa, Kiribati, and Tuvalu. The domestic violence index is computed using similar modeling. (**) and (*) indicate significancy respectively at the 1 percent and 5 percent level.

Table A.9: Computing the per student public spending as a share of per capita GDP

ISOC		MHL	KIR	TUV	FSM	PLW	NRU	WSM	TON	VUT
	Year	2019	2020	2021	2021	2020	2020	2019	2019	2019
	Per capita GDP nominal (US$PPP)	**5,987**	2,304	**5,524**	3,565	15,232	**14,372**	11,317	11,140	331,151[8]
	Public education spending	41,798	47,423	17,590	47,900	15,639	8,840	109,567	58,727	6,232,100
	Population	44,728	126,463	11,204	113,131	17,972	12,135	214,929	106,017	311,500
	Enrolment	14,260	33,955	3,411	24,516	4,277	3,179	57,804	39,613	97,500
	Nominal GDP	259,538	**262,883**	**84,000**	**401,932**	**217,800**	171,000	**2,234,131**	**1,977,880**	**107,450,000**
	% of GDP	**16.1%**	**18.0%**	**20.9%**	**11.9%**	**9.2%**	**5.2%**	**4.7%**	**5.4%**	**5.8%**
	Unit cost (% of p.c. GDP)	**50.5%**	**67.2%**	**68.8%**	**55.0%**	**30.2%**	**20.0%**	**17.4%**	**14.6%**	**18.5%**
Public ed. spending	Enrol.	Education digest 2019	Statistical Digest 2020	website	FSM Education indicators 2021	website	Census 2019	Digest 2019	Estimates[9]	Basic tables Education 2020
Sources	Funding	BOOST	BOOST	Auditor report	Budget data 2019	BOOST	UNESCO	BOOST	BOOST	Budget appropriation
	Pop.	Census 2021	WDI	WDI	WDI	WDI	Census 2019	WDI	WDI	WDI
	GDP	WDI	WDI	NSO	WDI	WDI	WDI	WDI	WDI	WDI

Note: Spending is displayed in thousands of current Local Currency Units. Enrolment excludes tertiary education. NSO: National Statistics Office. Bold figures are computed from the non-bold figures. When computing unit cost, the latest enrolment number are divided by the corresponding year's population.
Source: World Bank, IMF, National budget documentation, and Education Statistical digests.

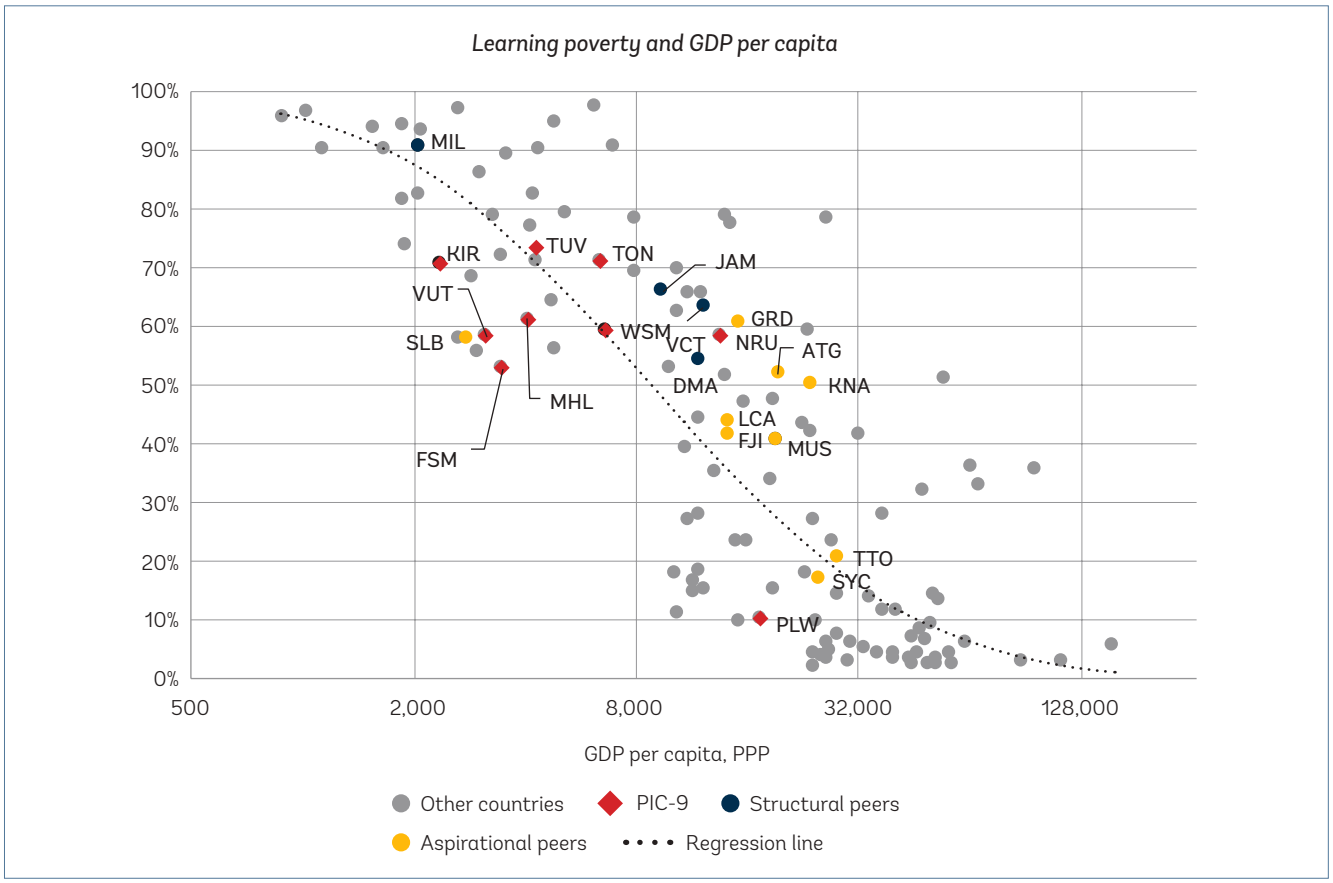
8. In local currency.
9. Estimates from MICS and total population UN Stats.

A.3 Supplemental analysis (Education)

A.3.1 On spending efficiency

Interim learning poverty is close to what could be expected given the PIC-9 level of development (Figure A.5). Most of the PIC-9 countries are achieving more than expected given their income level but this is not unlike their peers. If one only considers level of development and not education spending, learning poverty is in fact lower than what could be expected in Vanuatu, FSM, Kiribati, and RMI.

Figure A.5: If considering per capita GDP only, interim learning poverty is not significantly different from peer countries in most PIC-9

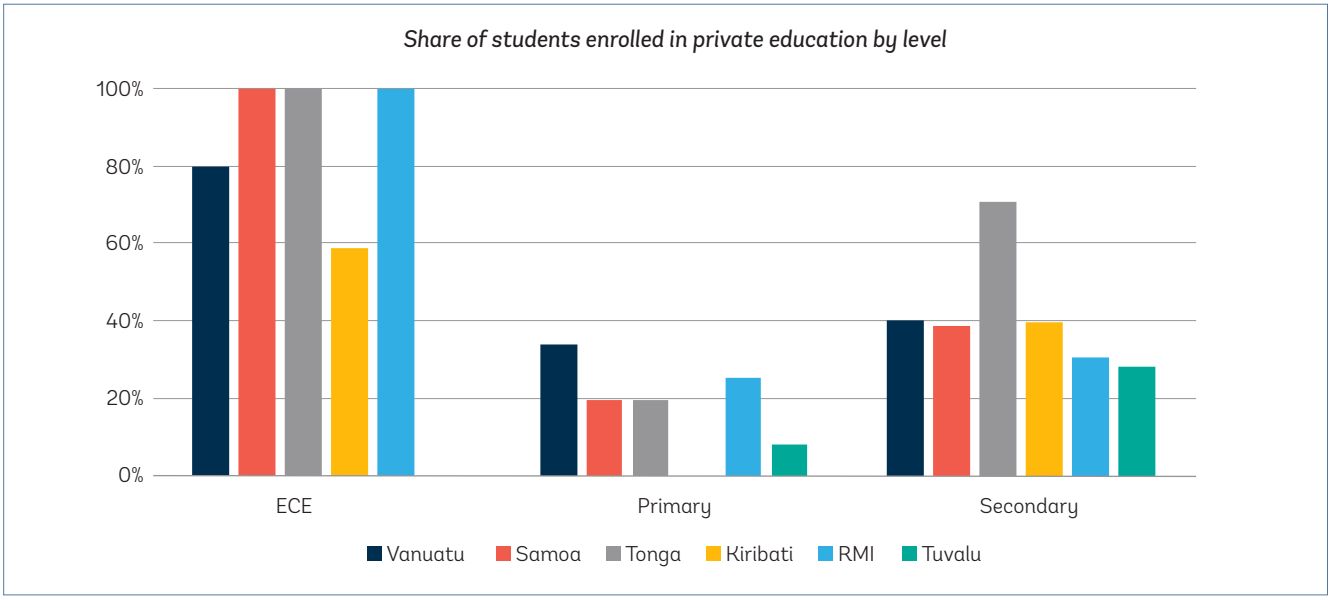


Source: Authors' calculations for learning poverty and World Development Indicators.

On private spending

Private education is limited at the primary level but fills a gap at the pre-primary and secondary level. Pre-primary education is mostly if not exclusively supplied by non-public organizations in all countries where information is available, except for FSM (Figure A.6). There, ECE is delivered freely in public dedicated centers or within primary schools for most of the younger pupils. Private ECE centers are subsidized to some extent by the government in Samoa, Kiribati, and Vanuatu but not in Tonga. In Kiribati, direct subsidies to private schools cover about 15 percent of the per student spending. These levels of subsidy, when they exist, are not sufficient to significantly lower the cost of ECE for families and raise attendance, as they cover only a minimal share of the costs (typically around 10 percent). Private education also represents a significant share of enrollment at the secondary level, especially in Tonga where most households must pay to access education. In Vanuatu, 35 to 40 percent of pupils are enrolled in private schools.

Figure A.6: At the primary level, public provision dominates; at the ECE level the opposite is the case



Source: Author's calculations from National education statistics. UNESCO figures for Vanuatu.

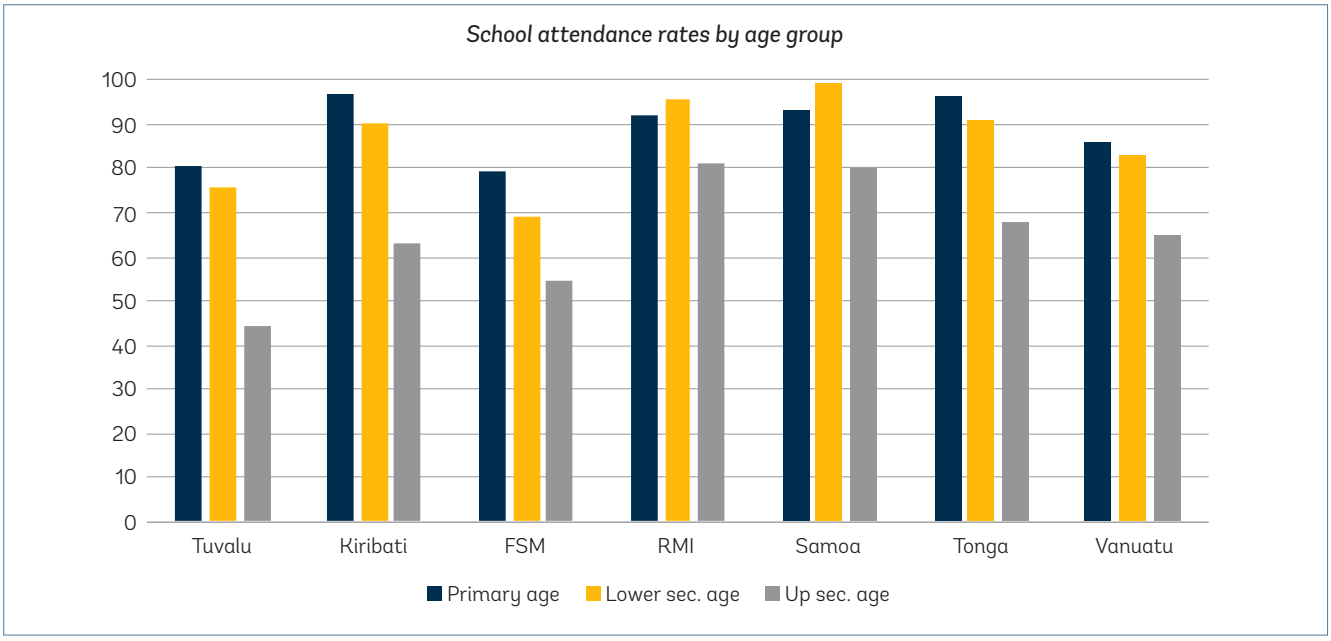
Public subsidies to schools are not necessarily efficient in lowering the households' burden. Vanuatu launched a praised (EEIP, 2017) school grant system in 2010 which aimed to eliminate fees, thus enhancing access. But data from the latest household survey from 2019 indicates that 85 percent of pupils are still paying fees at the preschool and primary level and 95 percent at the secondary and tertiary level. It is unclear what these fees are funding since the school grants cover most operational costs beyond wages, which are covered by the government in public schools.

Households' education spending is limited in most countries[10] despite a significant weight of private education because the private sector is heavily subsidized. Most of pre-primary education has been supplied by private and faith-based institutions while private schools represent a significant share of compulsory education in most countries but Vanuatu (Figure A.6). Yet, households' education spending, although significant, remains much lower than in Sub-Saharan Africa (Figure 3.5). This is permitted by large public subsidies to the private sector on one hand and the elimination of school fees in public schools on the other hand, which constitutes most of households' education expenditure in MICs.

On access

Enrollment in primary school is still short of being universal (Figure A.7). The Total Net Enrolment Rate[11] (TNER) for primary age children is 97 percent in RMI, above 96 percent in Kiribati and Tonga, and at 93 percent in Samoa. It remains below 90 percent in Vanuatu and large school fees even in public schools might be to blame. Enrollment is more limited in other countries, with as much as 20 percent of primary school age children out of school in Tuvalu, FSM, and Vanuatu. Almost 5 percent of children are not enrolled in primary school in Palau. Nauru is the only country where participation to primary is above 99 percent.

Figure A.7: Enrollment in primary school is still short of being universal



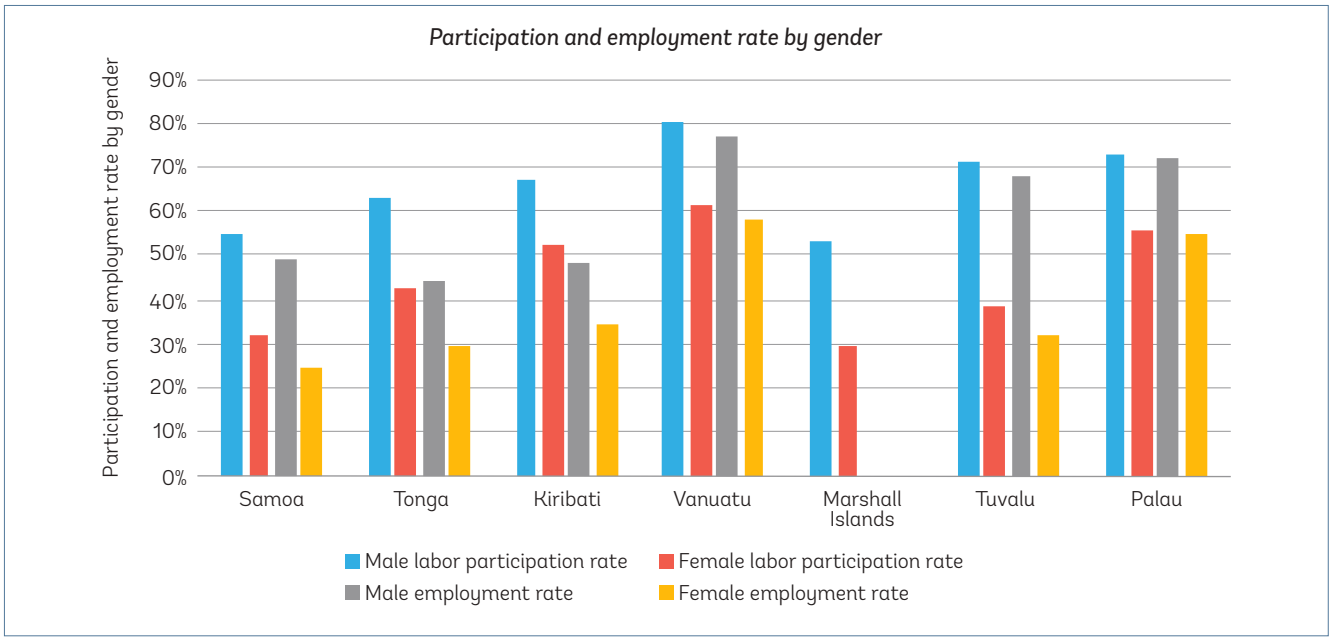
Source: Author's calculations from MICS 2019 for Tuvalu, Kiribati, Samoa, and Tonga; Last census for Vanuatu; Demographic projections for FSM; and last household expenditure survey for RMI.

10. Vanuatu is the exception.
11. The TNER measures the fraction of children in the theoretical age range for a given level of school, who are in school at any level.

A large gender gap exists, with boys underperforming girls while still having more favorable labor market prospects

Low female labor market participation is a waste of human capital (Figure A.8). Girls are more educated than boys in all PICs and their skill level is ahead of the skills of boys. Girls' test scores in numeracy are around one year ahead of the boys which is significant by international comparison. Yet, they tend to participate much less in the labor market, and when they do, it is rarely as formal employment. This situation induces a massive loss of human capital, as the most productive elements of society are not able to contribute to the economy.

Figure A.8: Women's human capital is wasted as they are widely excluded from the labor market



Source: ILO: Samoa (2017), Tonga (2018), Palau (2014), Kiribati (2015), RMI (2011), Tuvalu (2016), Vanuatu (2012).

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