

Pacific Economic Monitor

December 2018

www.adb.org/pacmonitor

The *Monitor* provides an update of developments in Pacific economies and explores topical policy issues.

Contents

Highlights	1
International and regional developments	3
Country economic issues	5
Policy briefs:	
Strengthening public debt management in the Pacific through policy-based operations	23
Managing public debt: Challenges in Melanesia, Micronesia, and Polynesia	26
The revised low-income country debt sustainability framework and the Pacific	32
Sustainable borrowing to finance investment and climate adaptation needs in Pacific island countries	37
Economic indicators	44

Highlights

- **The 25th issue of the *Pacific Economic Monitor*.** From its first issue released at the height of the global economic crisis in May 2009, the *Monitor* has shone the spotlight on critical development challenges in the Pacific, including connectivity; climate change and disaster resilience; tourism; fisheries; and public sector management. This issue focuses on another timely topic—debt sustainability—amid clear financing needs to help address remaining infrastructure and services gaps in the Pacific.
- **Debt sustainability through sound policies and management.** Although debt financing can play an important role in responding to substantial infrastructure needs in the Pacific, strong project due diligence and debt monitoring frameworks are needed to safeguard against future repayment concerns. Pacific governments and development partners are working together to keep these small economies away from debt distress, while also promoting long-term solutions to the challenge of expanding access to basic services.



DMC = developing member country, GDP = gross domestic product.
Sources: Asian Development Bank, International Monetary Fund, New Zealand Ministry of Foreign Affairs and Trade, and World Bank.

2 Highlights



Creative Commons Attribution
3.0 IGO license (CC BY 3.0 IGO)

© 2018 Asian Development Bank
6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines
Tel +63 2 632 4444; Fax +63 2 636 2444
www.adb.org

Some rights reserved. Published in 2018.

ISBN 978-92-9261-430-0 (print), 978-92-9261-431-7 (electronic)
ISSN 2521-6066 (Print), 2521-6074 (e-ISSN)
Publication Stock No. TCS189767-2
DOI: <http://dx.doi.org/10.22617/TCS189767-2>

This edition of the *Monitor* was prepared by Ananya Basu, Robert Boumphrey, Cathryn Buis, Jacqueline Connell, Prince Cruz, Noel Del Castillo, Edward Faber, David Freedman, Rommel Rabanal, Shiu Raj Singh, and Cara Tinio of the Pacific Department. Publishing production assistance was provided by Cecil Caparas.

The views expressed in this publication are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use. The mention of specific companies or products of manufacturers does not imply that they are endorsed or recommended by ADB in preference to others of a similar nature that are not mentioned.

By making any designation of or reference to a particular territory or geographic area, or by using the term “country” in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

This work is available under the Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO) <https://creativecommons.org/licenses/by/3.0/igo/>. By using the content of this publication, you agree to be bound by the terms of this license. For attribution, translations, adaptations, and permissions, please read the provisions and terms of use at <https://www.adb.org/terms-use#openaccess>.

This CC license does not apply to non-ADB copyright materials in this publication. If the material is attributed to another source, please contact the copyright owner or publisher of that source for permission to reproduce it. ADB cannot be held liable for any claims that arise as a result of your use of the material.

Please contact pubsmarketing@adb.org if you have questions or comments with respect to content, or if you wish to obtain copyright permission for your intended use that does not fall within these terms, or for permission to use the ADB logo.

Notes:

In this publication, “\$” refers to United States dollars unless otherwise stated.

ADB recognizes “China” as the People’s Republic of China and “Timor” as Timor-Leste.

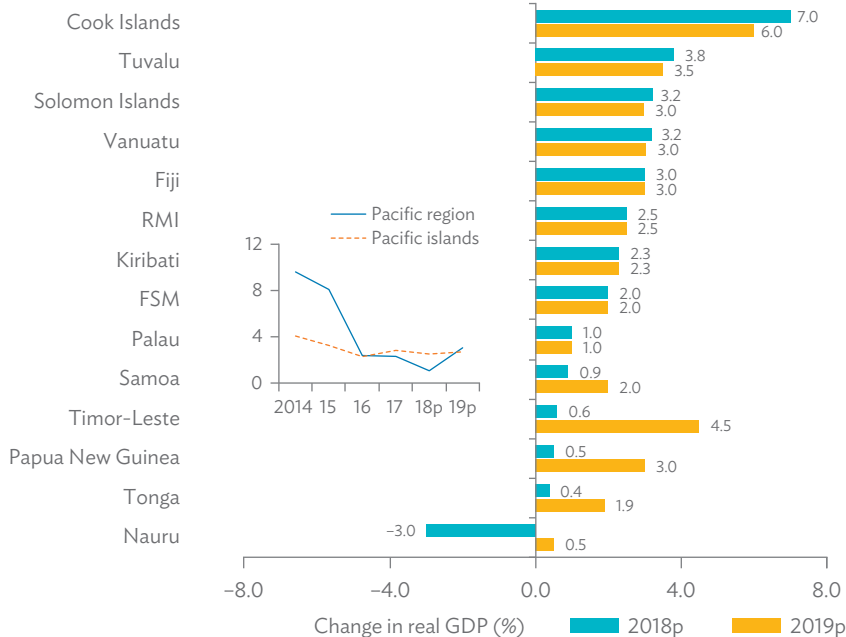
Corrigenda to ADB publications may be found at <http://www.adb.org/publications/corrigenda>.

Abbreviations

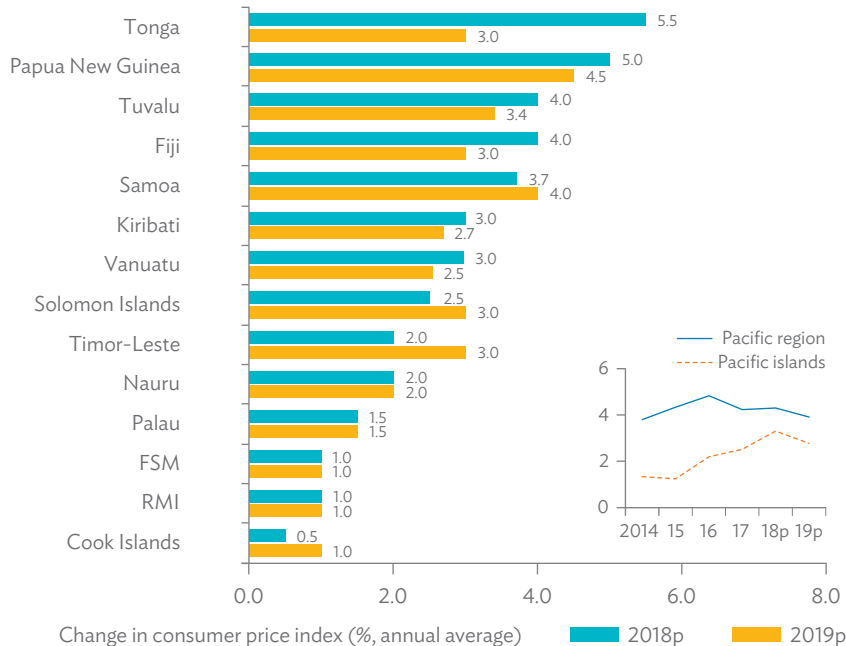
DMC	developing member country
FSM	Federated States of Micronesia
GDP	gross domestic product
IMF	International Monetary Fund
PNG	Papua New Guinea
PRC	People’s Republic of China
RMI	Republic of the Marshall Islands
SOE	state-owned enterprise
y-o-y	year-on-year

Asian Development Bank Projections

GDP Growth



Inflation



FSM = Federated States of Micronesia, GDP = gross domestic product, p = projection, RMI = Republic of the Marshall Islands.

Notes: Projections are as of December 2018 and refer to fiscal years. Regional averages of GDP growth and inflation are computed using weights derived from levels of gross national income in current United States dollars following the World Bank Atlas method. Averages for Pacific islands exclude Papua New Guinea and Timor-Leste. Timor-Leste’s GDP is exclusive of the offshore petroleum industry.

Source: ADB estimates.

Notes

This *Monitor* uses year-on-year (y-o-y) percentage changes to reduce the impact of seasonality, and 3-month moving averages (m.a.) to reduce the impact of volatility in monthly data.

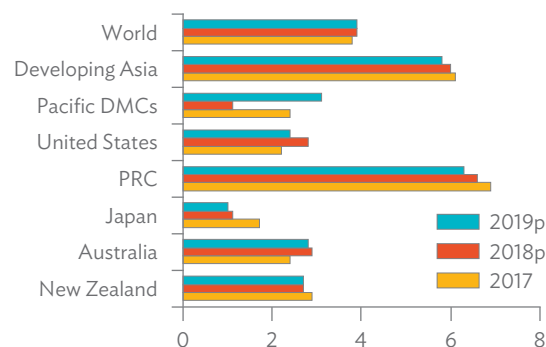
Fiscal years end on 30 June for the Cook Islands, Nauru, Samoa, and Tonga; 31 July for Fiji (starting 2017); 30 September for the Marshall Islands, the Federated States of Micronesia, and Palau; and 31 December elsewhere.

INTERNATIONAL AND REGIONAL DEVELOPMENTS

Rising trade conflict and other risks obscure medium-term prospects

- The global economy faces downside risks. The global growth forecast for this year and for 2019 has been revised and is now at 3.7% for both years, which is 0.2 percentage points lower than the forecast earlier this year. This largely reflects moderation of economic activity in advanced economies due to escalating trade conflicts. Meanwhile, developing Asia and other emerging economies posted stable growth in the first half of 2018 and, despite some capital outflows, are expected to reach their growth forecast for the year.
- The United States (US) economy grew at an annualized rate of 3.5% in the third quarter of 2018. The faster-than-expected growth was driven by consumer spending, which grew by 4.0% this quarter. Government spending was also a significant driver of growth which expanded by 4.5%. These expansions have helped offset declines in business spending and exports, which fell by 7.9% and 3.5%, respectively. Despite the positive economic performance, certain indicators show that growth is unlikely to be sustained. The decline in business spending indicates the hesitancy of firms to invest in structures despite the large corporate tax cut enacted recently. Moreover, the escalation of tariff conflict will result in tighter trading conditions which are expected to slow down the global economy and lead to lower US economic growth.
- Economic growth in the People's Republic of China (PRC) slowed to its weakest pace since 2009 amid domestic debt risk concerns and trade conflict with the US. The economy decelerated to 6.5% in the third quarter of 2018 due to weakening domestic demand, because the cost of borrowing rose as the government clamped down on lending by online finance companies and other private sector businesses that bypass the state-controlled banking system. In an attempt to mitigate the impact of the trade dispute with the US, the government has been gradually easing fiscal and monetary policies. While the growth forecast for 2018 remains unchanged at 6.6%, slower demand growth and intensifying trade conflict with the US have lowered the growth forecast for 2019 to 6.3%.
- The Japanese economy contracted at an annualized rate of 1.2% in the third quarter of 2018. Despite the strong rebound in the previous quarter, economic activity slowed due to the recent disasters that had hit Japan. This resulted in a 1.8% fall in its exports. However, the weaker-than-expected performance of the economy may also indicate its vulnerability to the trade conflict between the US and the PRC. Exports to the PRC, Japan's largest trading partner, fell in September—the first time in 7 months. Global trade tensions could derail Japan's export-reliant economy, while the impact of disasters may not only weaken consumer activity but also disrupt firm production. Although the economy is expected to recover this fourth quarter, analysts are projecting a lukewarm growth. Latest forecasts indicate that the economy is expected to slow to 1.1% for the full year 2018 and further ease to 1.0% in 2019.
- Australia posted a 3.3% economic growth in the first half of 2018, with its second quarter expansion of 3.4% the fastest rate since September 2012. Better-than-expected performance of the economy was driven by strong household sector activity in the form of increased consumer spending and higher demand for new homes. Household consumption rose by 3% over the year. Stable exports and strong government spending also supported the latest economic expansion. However, weak growth in wages may push households to eventually tighten their belts and reduce spending. FocusEconomics forecasts that the growth will be 2.9% for 2018 as a whole and 2.8% in 2019.
- New Zealand's economy marked its fastest expansion in 2 years as it advanced by 1.0% seasonally adjusted annualized rate in the second quarter of 2018. Except for mining, broad-based growth across major industries supported the expansion with agriculture posting the strongest growth. Higher milk

GDP Growth (% annual)



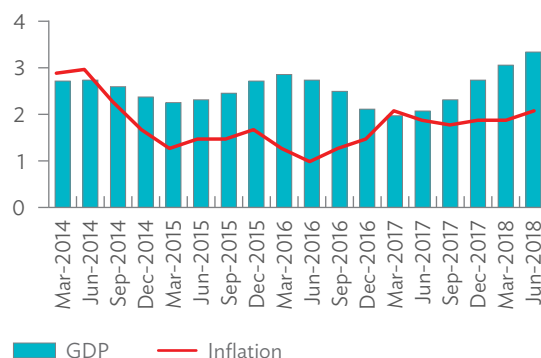
DMC = developing member country, GDP = gross domestic product, p = projection, PRC = People's Republic of China. Notes: Developing Asia and Pacific DMCs as defined by ADB. Figures are based on ADB estimates except for World GDP growth. Sources: ADB. 2018. *Asian Development Outlook 2018 Update: Maintaining Stability Amid Heightened Uncertainty*. Manila; International Monetary Fund. 2018. *World Economic Outlook April 2018: Challenges to Steady Growth*. Washington, DC.

GDP Growth in Developing Asia (% annual)



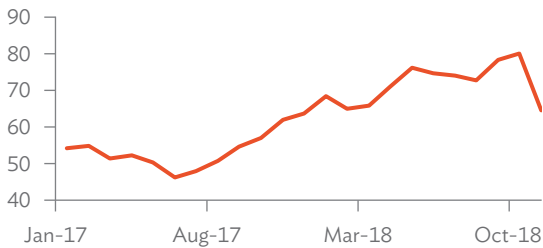
GDP = gross domestic product, p = projection. Source: ADB. 2018. *Asian Development Outlook 2018 Update: Maintaining Stability Amid Heightened Uncertainty*. Manila.

Australia Economic Indicators (quarterly, y-o-y % change)



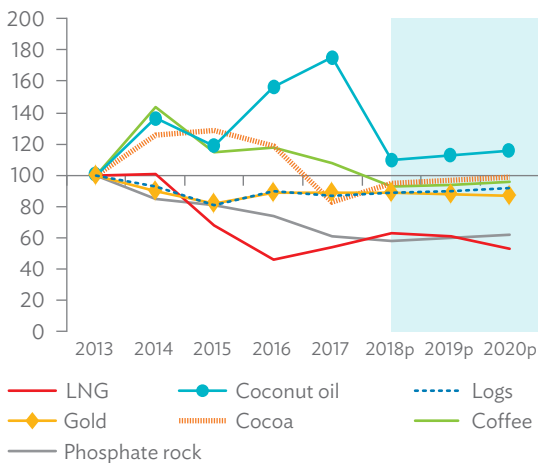
y-o-y = year-on-year. Sources: Australian Bureau of Statistics and Reserve Bank of Australia.

Average Spot Price of Brent Crude Oil (monthly, \$/bbl)



bbl = barrel of crude oil.
Source: World Bank Commodity Price Data (Pink Sheet).

Prices of Export Commodities (2013 = 100, annual)



LNG = liquefied natural gas, p = projection.
Source: ADB calculations using data from World Bank Commodity Price Data (Pink Sheets).

Tourist Departures to Pacific Destinations ('000, January–August totals)



Sources: Australian Bureau of Statistics and Statistics New Zealand.

production due to favorable weather conditions and increased sheep and beef cattle farming led to 4.1% growth in agriculture. An unplanned outage at the country’s largest natural gas field resulted in a 20% drop in the mining industry. With the first quarter growth at 0.5%, New Zealand’s economy grew by 0.8% in the first half of 2018. FocusEconomics expects the current economic momentum to continue up to 2019, although slowdown in activity in the PRC pose a downside risk to its exports.

Mixed outlook for commodity prices amid global uncertainties

- Tighter global oil supply due to production declines in certain countries and the latest economic sanctions in Iran have led to a rise in oil prices. The average price of Brent crude oil was 46.0% higher in the third quarter of 2018 compared with the same quarter of the previous year. However, oil prices fell by 19.0% last November 2018 due to increased production by major oil producers. Oil prices are expected to increase to \$74 per barrel in 2019 before easing to \$69 per barrel in 2020. Meanwhile, agricultural prices weakened in the third quarter of 2018 due to bumper harvest and spillovers from the rising trade conflict. Oils and meals price index suffered the most as it fell by 3.2% following the tariff imposition on US soybeans. On average, agricultural prices are expected to be relatively unchanged in 2018 but will increase in 2019 due to projected higher costs of energy and fertilizers.
- Prospects for key Pacific exports are mixed. Natural gas prices increased by 21.8% in the third quarter of 2018 reflecting strong demand for electricity due to the unusually hot weather in Asia and Europe. Increasing exports of liquified natural gas, particularly from Qatar and the US, will raise global supply and support the expected moderation of prices in 2019. The average price for cocoa has risen by 12.5% in the third quarter of 2018 relative to the same quarter last year. On the other hand, average coffee price is down by 15.5% this quarter compared with last year due to a bumper Brazilian harvest. Meanwhile the price of gold has declined by 5.1% this quarter due to subdued consumption from India. The appreciation of the US dollar and higher interest rates in some advanced economies have also shifted the attention of investors away from gold. Tighter US monetary policy and further appreciation of the US dollar could further push gold prices lower in 2019.

Strong tourism to the South Pacific

- Growth in tourist departures from New Zealand to major south Pacific destinations jumped by 14.1% (y-o-y) over the first 8 months of 2018—about 2.5 times the increase for other destinations. The recent strong performance of the New Zealand economy has supported large increases in trips to the Cook Islands, Fiji, Samoa, and Tonga, with each destination recording its highest ever January–August total for New Zealand tourists this year. The sharp rise in New Zealand tourism to Vanuatu also accelerated further, buoyed by Air Vanuatu’s expanded services between Auckland and Port Vila during the June–August peak season.
- Australian tourism to the South Pacific picked up during the southern hemisphere winter months of June–August, reversing earlier declines. Over the first 8 months of the year, the total number of Australian tourists visiting South Pacific destinations increased marginally by 0.6%. Air Vanuatu’s expanded peak season services between Sydney and Port Vila, as well as new flights connecting Brisbane with Espiritu Santo and Port Vila, helped support double-digit growth in trips from Australia to Vanuatu. Growth in Australian tourism to the Cook Islands and Tonga has held up, while Fiji and Samoa are also showing early signs of an upswing.

COUNTRY ECONOMIC ISSUES

Assessing Papua New Guinea's public debt: Trends and limitations

Lead author: Edward Faber

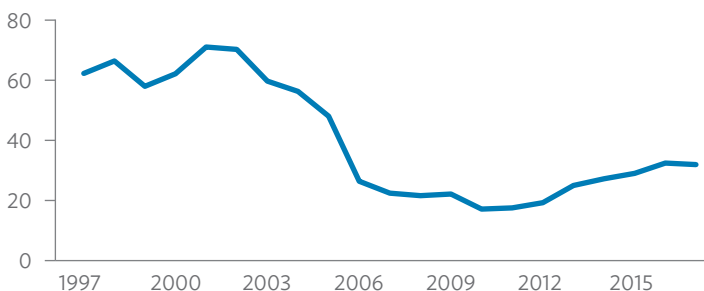
Finding the right debt balance for a sovereign nation is not straightforward. On the one hand, debt is needed to spur economic and social development, through funding infrastructure such as schools, hospitals, electricity, and transport. But, on the other hand, governments can only borrow as much as creditors are prepared to lend and, if borrowings are used unwisely or become too burdensome, countries may struggle to service debt and can end up paying more in interest than is put towards important social imperatives.

In 2006, Papua New Guinea (PNG) legislated a prudent fiscal rule under its Fiscal Responsibility Act to limit its public debt to within 30% of gross domestic product (GDP). This was later revised in 2017 to a threshold of 30%–35% to accommodate PNG's growing debt, with a view to reducing the ratio to below 30% by 2022. A second fiscal rule, which requires PNG to target a zero average annual non-resource primary balance over the medium term, was also included in the amended Fiscal Responsibility Act 2017. This article explores in more detail PNG's trend in public debt, its composition, and the various ratios and measures by which PNG's debt can be assessed.

PAPUA NEW GUINEA'S DEBT STORY

PNG's debt-to-GDP ratio has fluctuated over time (Figure 1). In 2001, the ratio reached a peak of 71.2%, during an economic period that was challenged by drought, the Asian financial crisis, and weak macroeconomic management; but, by 2010, the debt-to-GDP ratio had fallen to 17.0% after several years of strong economic growth, buoyant commodity prices, and improved economic management.

Figure 1: Papua New Guinea Public Debt (% of gross domestic product)



Source: Asian Development Bank.

In 2013 and 2014, the economy continued to perform strongly due to the tail end of a liquefied natural gas investment and favorable commodity prices. But the government adopted a strategy of fiscal expansion and incurred large budget deficits, equivalent to 6.9% of GDP in 2013 and 6.3% in 2014, as it embarked on a growth drive during this period. This trend continued into 2015 but was brought to an abrupt end following a sharp decline in worldwide commodity prices, compounded by the end of the liquefied

natural gas investment cycle and drought. The consequential fall in government revenues necessitated immediate fiscal adjustment by slashing capital expenditure, with the end result being a fiscal deficit equivalent to 4.1% of GDP, which was still high. This was followed by a further deficit in 2016 of 4.6% of GDP, as the government continued to struggle to adjust to the new economic circumstances.

These deficits contributed to an increase in public debt, which rose from K7.4 billion in 2011 (equivalent to 17.4% of GDP) to K21.9 billion in 2016 (equivalent to 32.4% of GDP). In 2017, a further deficit was recorded at 2.5% of GDP; although this was below economic growth of 3.0%, meaning that the debt-to-GDP ratio trended slightly lower to 31.2%.

A COMPARISON OF PAPUA NEW GUINEA'S DEBT-TO-GDP RATIO AND INTEREST COSTS

On the surface, PNG's debt-to-GDP ratio of 31.2% does not seem high. For example, it is below the average for Africa, the Caribbean, the Pacific, South Asia, and well below major advanced economies (Table 1).

Table 1: General Government Gross Debt (% of gross domestic product)

	2008	2016	2017
Africa	30.4	53.2	53.6
Asia and the Pacific	78.9	80.6	80.0
Australia and New Zealand	12.6	39.7	39.6
Caribbean	38.0	50.8	52.0
Pacific islands	28.3	38.0	38.3
South Asia	70.2	66.6	67.8
Southeast Asia	43.2	47.3	47.4
South America	48.3	59.7	64.9
Major advanced economies (G7)	88.6	119.4	117.4

G7 = Group of Seven.

Source: International Monetary Fund.

However, the cost of interest and access to debt from domestic and international markets varies widely between countries, and this is a significant determining factor for a country's debt capacity. Most advanced economies can afford to have higher debt burdens because interest costs are lower, and debt can easily be raised from a variety of sources (a result of better credit risk profiles and larger, more diversified economies). On the other hand, developing countries must pay much higher rates of interest and have far fewer options to source debt. PNG's recent 10-year sovereign bond, for example, was priced at 8.375%, a significant premium to the 10-year United States treasury yield of around 3.000%. PNG's local debt also carries relatively high interest rates, currently priced at between 4.700% for 6 months' duration and 12.600% for 10 years' duration, although, due to inflation of around 5.000%, the real interest rate on domestic debt is lower.

Thus, as PNG's debt has grown, so have its interest costs. In 2012, the annual cost of interest (i.e., debt service) on PNG's public debt was K452.0 million, equivalent to 4.8% of government revenues (including grants) or 1.1% of GDP; but, by 2017, the figure had grown to K1.5 billion (equivalent to 13.2% of revenues or 2.0% of GDP). The ratio of interest costs to revenues is expected to climb to about 14% in 2018, or 2.3% of GDP. The higher the ratio, the more difficult it becomes to service and the more it diverts funds away from other budget expenditures like health and education. In 2016, when PNG's ratio stood at 11.9%, it was not much higher than the peer average of 10.6% (Table 2) or 10.5% for lower middle income countries (a World Bank classification); however, with the ratio forecast to reach 14% in 2018, this will place PNG above average, thus indicating that PNG's debt levels are relatively high, despite the lower than peer group debt to GDP ratio.

Making comparisons of the debt-to-GDP ratio with other developing countries can also be dangerous. For example, many African nations are already seen to be beyond debt thresholds,

with the average debt-to-GDP ratios having risen from 30.4% of GDP in 2008 to 53.6% in 2017. In addition, there are also variations around how public debt is calculated between countries. General definitions suggest that public debt should include all gross guaranteed debt and liabilities. In the case of PNG, however, the calculation only includes central government borrowings. But there are other forms of debt which could be considered for inclusion, including unfunded pension liabilities, state-owned enterprise and statutory authority debt, public sector arrears, and any guarantees issued by the government. If these were included, PNG's debt-to-GDP ratio would be higher and more comparable with other developing countries.

A further complicating factor in PNG's debt-to-GDP ratio relates to the calculation of GDP. The National Statistics Office, which is the official source of GDP data, has not yet released GDP calculations for 2016 and 2017, nor revised calculations for 2015. Once released, this data is expected to show GDP to be below current government estimates and, therefore, result in an upward revision of the debt-to-GDP ratio, closer to the 2017 debt-to-GDP ratio of 36.9% calculated by the International Monetary Fund.

Table 2: Peer Comparison: Debt and Debt Service

	Central Government Debt, Total (% of GDP) (2016)	Interest Costs (i.e., debt service) (% of revenue) (2016)	Interest Costs (i.e., debt service) (% of GDP) (2016)	Foreign Currency Debt (% of total debt) (2016)	Foreign Currency Debt (% of GDP) (2016)
Japan	235.6	12.7	1.6	...	...
United States	106.9	13.6	2.6	...	...
Australia	40.6	3.9	1.0	...	...
Papua New Guinea	36.9	11.9	1.8	24.3	9.6
Fiji	47.5	10.8 (2015)	...	30.6	14.5
Indonesia	28.4	11.7	1.5	66.9	19.0
Kenya	53.2	14.7	3.0	48.6	25.9
Bangladesh	33.3	18.5	1.9	38.9	12.9
Cambodia	29.1	1.8	0.4	96.9	28.2
Malaysia	56.2	12.5	2.2	39.4	22.2
Myanmar	35.7	7.4	1.4	23.5	8.4
Mongolia	79.4	18.3	4.1	50.7	40.3
Nepal	27.8		0.4	61.7	17.1
Philippines	39.0	14.0	2.1	28.1	11.0
Zambia	60.7	26.9	4.9	54.6	33.1
South Africa	51.6	11.0	3.4	40.8	21.0
Solomon Islands	7.9	0.3	0.1	89.3	7.1
Vanuatu	46.1	2.6	1.1	37.7	17.4
Samoa	52.5	3.4	0.9	94.5	49.6
Peer Average	43.0	10.6	1.9	51.7	
Source of data	International Monetary Fund World Economic Outlook Oct 2018	World Bank World Development Indicators	World Bank World Development Indicators	World Bank International Debt Statistics	World Bank International Debt Statistics

GDP = gross domestic product.

Sources: World Bank; International Monetary Fund.

COMPOSITION OF PAPUA NEW GUINEA'S DEBT

External debt. The level of foreign currency debt relative to domestic debt is a key determinant in assessing a country's debt profile. Foreign currency debt carries higher risk because of currency risk. Since most developing countries cannot raise debt abroad in their own currency, unlike advanced economies, they are required to borrow in foreign currency. In PNG, foreign currency debt was equivalent to 27.1% of total public debt or 8.4% of GDP at year-end 2017. While this is lower than the average of 51% for the selection of countries shown in Table 2 (for 2016), PNG's external debt is on an upward path, and is expected to increase to around 34.9% of overall debt or 10.8% of GDP by the end of 2018 due to recent external borrowings from international bond markets, commercial lenders, and multilateral banks. The 2019 budget forecasts a continuation of this trend, with these ratios forecast to grow to 41.7% and 12.8%, respectively.

Positively though, PNG's external debt is more weighted towards multilateral debt, estimated to be around 60.0% of total external debt, or \$1.5 billion, according to the 2018 budget. Typically, multilateral debt has concessional rates of interest and is provided with grace periods and long amortization schedules.

Commercial external debt is a growing part of PNG's debt portfolio. Such debt includes a \$500 million loan from Credit Suisse and a recent \$500 million sovereign bond. The downside to commercial debt is that it usually carries high interest rates, can have shorter durations, and typically requires repayment in lump sum. Refinancing commercial debt is often the course of action taken by governments; however, that can only be done if an economy is managed soundly, with sustained market confidence.

Another component of external debt is bilateral debt, which accounts for around one quarter of PNG's external debt. The largest lenders to PNG are the People's Republic of China with around 86%, followed by Japan with around 14%, according to the 2018 budget report.

Domestic debt. PNG's domestic debt accounted for about 73% of total debt at the end of 2017. Sourcing domestic debt was easy in the boom years as companies made profits, which translated into savings in the financial system that in turn were invested in government securities. Domestic debt expanded by 44.6% in 2013 and 33.7% in 2014. However, challenges to the economy from 2015 onwards meant less profits were generated and reduced appetite for sovereign risk. Indeed, as the market declined to take up new government debt, the central bank purchased unfilled orders, although this action had receded by 2017. In 2017, growth in domestic debt was only 4.5%, which was a contraction in real terms, given the inflation rate of 4.7%. Looking ahead, PNG's scope to raise debt domestically is likely to remain constrained until the economy picks up significantly. More recently, domestic debt has shown a contracting trend, expected at -3.5% in 2018 and -3.8% under the 2019 budget. This shift reflects increased use of external borrowings by the government.

THE MEDIUM-TERM FISCAL STRATEGY

PNG's medium-term fiscal strategy (2018–2022) and Fiscal Responsibility Act outlines the measures that the government is taking to adopt prudent fiscal and debt management, including a planned yearly reduction in the annual fiscal deficit in line with the overall reduction in the debt-to-GDP ratio. Aligned with this is another key fiscal measure, which is to target a reduction in PNG's non-resource primary balance, which was -1.8% (a deficit) of non-resource GDP in 2017, and which was originally targeted at -1.0% in the 2018 budget, but which is now expected to be -2.2% in 2018 and expand to -2.7% under the 2019 budget (against an original target of -0.7% in the 2018 budget), before falling to -1.0% by 2020 (against an original target of -0.7%). This measure is the fiscal balance excluding interest payments and resource income (i.e., taxes and dividends from mining and petroleum companies, which exhibit volatility along with changes in worldwide commodity prices), measured against non-resource GDP. PNG is targeting a neutral (i.e., zero) balance over the medium term (i.e., by 2022, under the MTF5), which will mean that a percentage of resource revenues can be set aside to build a fiscal buffer (and in due course flow into a sovereign wealth fund should resource revenues pick up). Since PNG has no hard fiscal deficit rule, it is important that PNG seeks to move towards committing to meet targets outlined in the MTF5 (ideally, original targets) for the non-resource primary balance rule in order to manage its overall fiscal balance and debt sustainably.

CONCLUSION

A number of conclusions can be drawn from reviewing data on PNG's debt profile. The first is that, while PNG's debt-to-GDP ratio may be below that of many other countries, its cost of interest paid as a percentage of government revenues is higher than average, indicating that PNG should continue to cautiously manage growth in debt (alongside continued efforts to raise government revenues).

The second is that there are variations over how to calculate PNG's debt stock and GDP, and that alternative calculations might see a higher debt-to-GDP ratio that is more comparable with some other developing countries.

The third is that debt limits are determined by how much creditors are willing to lend. On the domestic front, PNG already hit a temporary threshold, which necessitated a switch to foreign borrowings. While the government has done this successfully, foreign currency borrowings come with elevated risks and will require PNG to continue to be careful in managing government finances, including the ongoing reduction of the fiscal deficit, to maintain the confidence of international investors.

Fourth, PNG remains vulnerable to shocks from changes in commodity prices and natural disasters and, given that that these will occur again, PNG must continually work towards building fiscal buffers and flexibility in its debt profile.

Infrastructure gap and debt financing in Solomon Islands

Lead authors: Jacqueline Connell and Prince Cruz

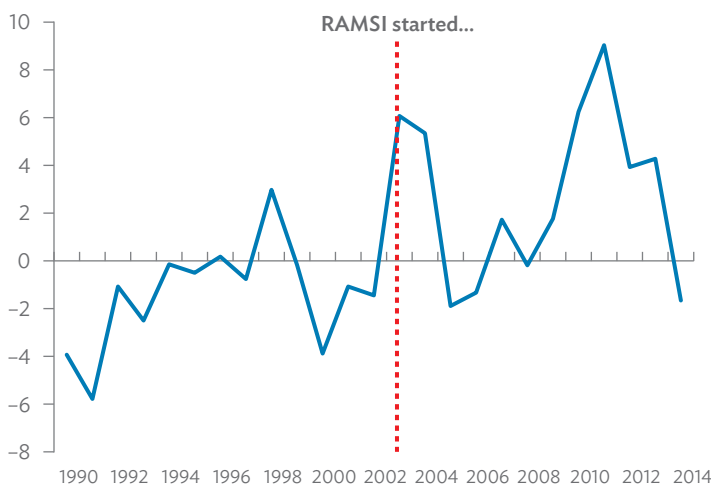
After falling for almost a decade, the debt of Solomon Islands has started to rise in 2017 from a low level to primarily finance infrastructure investment. Its debt story illustrates the impact of severe economic downturns and the role that appropriate debt management can play in restoring debt sustainability.

Ethnic tensions, which resulted in civil unrest, violence, and political instability from 1998 to 2003, had a devastating impact on the economy. Government revenues deteriorated, exports halved, and international reserves were virtually exhausted by 2002. Currency depreciation pushed up foreign-denominated external debt and debt-servicing costs. Solomon Islands had one of the highest debt-to-GDP ratios in the Pacific, and it defaulted on its official debts. International financial institutions, including the World Bank and the Asian Development Bank (ADB), ceased lending to Solomon Islands.

Gradually, the government stabilized its finances, and economic conditions improved with the arrival of the Regional Assistance Mission to Solomon Islands in July 2003. Alongside its security operations, the Regional Assistance Mission to Solomon Islands focused on improving fiscal management, economic reform, and stabilizing debt. The government signed the Honiara Club Agreement with its major creditors in 2005. This provided for substantial debt restructuring and forgiveness, and committed the government not to borrow until debt sustainability was restored.

During the decade that followed, successive governments ran fiscal surpluses or small deficits, aided by economic recovery, rising revenues from logging, and improved tax administration (Figure 2).

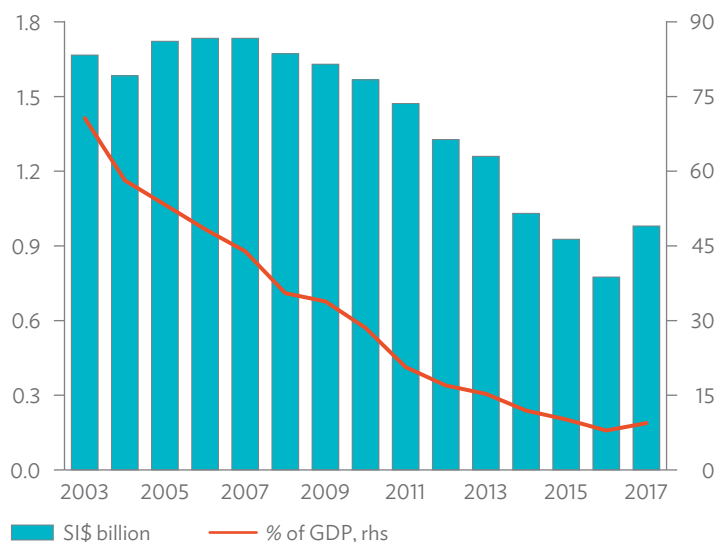
Figure 2: Solomon Islands General Government Fiscal Balance (% of gross domestic product)



RAMSI = Regional Assistance Mission to Solomon Islands.

Source: International Monetary Fund World Economic Outlook Database.

Figure 3: Solomon Islands Public Debt



GDP = gross domestic product, rhs = right-hand scale.

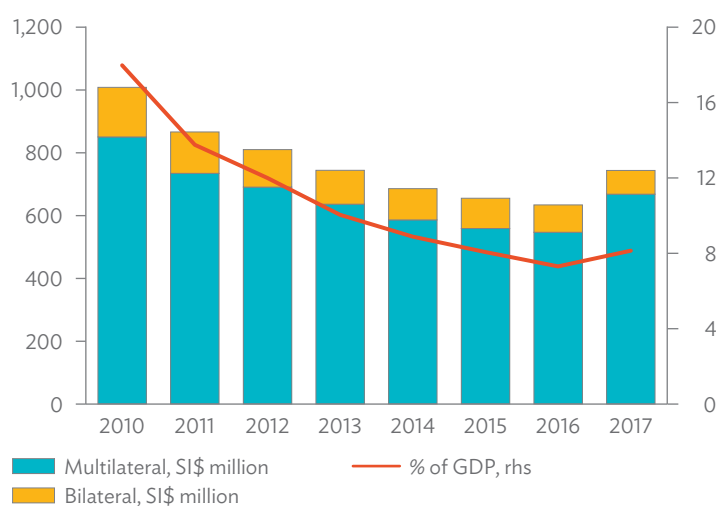
Source: International Monetary Fund World Economic Outlook Database October 2018.

Development partners also contributed significant budget support for health, education, and other vital services. Public debt fell from the equivalent of 70.7% of GDP in 2003 to 7.9% in 2016—among the lowest in the Pacific (Figure 3).

In 2012, the Cabinet of Solomon Islands endorsed a new Debt Management Strategy, which provided a framework to anchor borrowing plans to finance development. Shortly afterwards, the Honiara Club Agreement was amended to enable external concessional borrowing to resume. The Debt Management Strategy was strengthened in 2016 and includes guidelines on government direct borrowing, guarantees, and onlending. It states that borrowing proposals should be evaluated and prioritized to maximize economic and social returns. The minister of finance, who has sole authority to approve government borrowing, must consult with a Debt Management Advisory Committee comprised of executives from the Ministry of Finance and Treasury, the Ministry of Development and Aid Coordination, and the Central Bank. The minister is required to include an annual borrowing limit in the annual budget appropriation act. In September 2018, new debt management regulations came into force under the Public Financial Management Act of 2013 that prescribes the process to raise new debt.

Public debt rose slightly in 2017, but remains well below the government's nominal ceiling of 35% of GDP set by the Debt Management Strategy. After retiring a substantial amount of domestic debt in 2015, debt servicing remained around 1.8% of total revenues in 2016 and 2017, well below the 10% limit set by the Debt Management Strategy. In 2017, almost 90% of the government's external loans were with multilateral creditors such as ADB and the World Bank (Figure 4).

Figure 4: Solomon Islands External Debt, by Creditor



GDP = gross domestic product, rhs = right-hand scale.

Source: Asian Development Bank calculations using data from the Ministry of Finance and Treasury Government of Solomon Islands.

Recognizing the large infrastructure gap of Solomon Islands, the government is investing in several projects with debt financing. Recently, it issued new domestic debt to capitalize a new state-owned enterprise, which is responsible for the construction and operation of an undersea telecommunications cable. The project, which is majority funded by the Government of Australia, aims to improve internet connectivity and reduce reliance on expensive satellite communications.

The government also plans to invest in a hydropower project in Tina River. The project is expected to be majority financed by concessional loans, with the remainder financed by government and private partner equity and grants. Despite the added debt, the expected benefits include lower electricity tariffs (which are currently the highest among Pacific island countries), expanded access to renewable energy, and a reduced reliance on imported fuel. Both the internet cable and hydropower projects are expected to support longer-term growth prospects for Solomon Islands by reducing the costs of doing business and improving service delivery.

Financing for large infrastructure projects is projected to push public debt to the equivalent of 26.1% of GDP by 2023, according to the 2018 International Monetary Fund (IMF)–World Bank debt sustainability analysis (IMF 2018a). It indicates that the risk of debt-distress for Solomon Islands is currently moderate.

While the debt burden of Solomon Islands is relatively low, and there is scope to increase borrowing, there are structural factors which could limit its debt-service capacity at higher debt levels. The country has a small domestic market, and a narrow economic base. Logging exports, which are an important source of government revenue, will likely decline over the medium term. The fact that Solomon Islands has one of the lowest gross national income per capita among ADB's Pacific developing member countries, and the government has limited capacity to manage a rapid scale-up of new infrastructure projects, also suggests that careful borrowing is needed.

Prioritizing infrastructure investment projects that build resilience to disasters and support private sector activities that will broaden the export base will help to reduce the risks of shocks that could adversely affect debt sustainability.

Rebuilding fiscal buffers and improving public financial management will similarly enhance the resilience of Solomon Islands to shocks and yield debt sustainability benefits. Government cash reserves, built up over several years, were drawn down to finance consecutive fiscal deficits during 2015–2017, limiting their usefulness as a fiscal buffer against shocks. The government's current fiscal consolidation efforts combined with efforts to increase tax revenue will help to provide fiscal space to respond to shocks.

Debt management in post-disaster Vanuatu

Lead authors: Jacqueline Connell and Prince Cruz

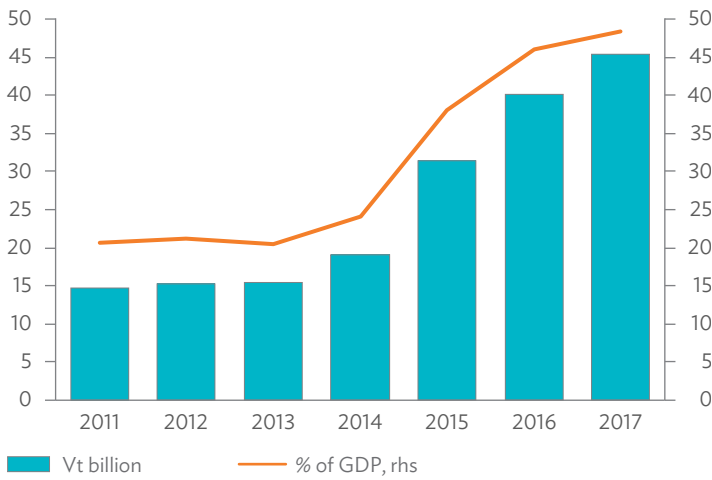
Vanuatu is ranked as the world's most vulnerable country for disasters in the United Nations World Risk Index (2017). This has implications for debt sustainability. For example, Tropical Cyclone Pam, which struck Vanuatu in 2015, caused damage to infrastructure equivalent to around 60% of GDP.

Even before the cyclone hit, the government had a large infrastructure pipeline to be financed by grants and concessional lending. Yet, simple repairs required on some projects became major reconstruction activities due to cyclone damage. The rehabilitation and upgrading of the country's main airport in Port Vila was long overdue; cyclone damage on the runway partly contributed to the suspension of flights by Australian and New Zealand airlines in 2016. This dealt significant blows to the tourism industry already affected by the cyclone.

While the bulk of cyclone reconstruction was financed by development partner grants, the government also took on concessional loans for reconstruction, including for roads. Public debt increased in the wake of Cyclone Pam from the equivalent of 24.1% of GDP in 2014 to 46.1% in 2016 (Figure 5). Public debt is now at the higher end, compared with other Pacific island countries. Vanuatu's debt service burden is relatively low, reflecting that much of its debt is concessional. Around 70% of Vanuatu's external debt is with bilateral creditors and the remainder is mostly with the Asian Development Bank, the International Monetary Fund, and the World Bank.

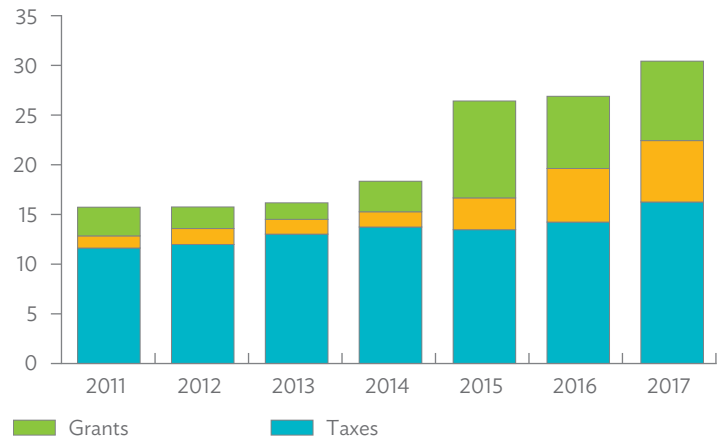
While disasters have the potential to cause fiscal management issues, Vanuatu's total revenue did not drastically decrease in the wake of Cyclone Pam. Vanuatu's economy narrowly avoided recession and grew by only 0.2% in 2015. Taxes, which provided the bulk of domestic revenue, fell by 2.0% (Figure 6). Parliament also passed a budget revision that waived value-added tax and import duties on building materials and relief items. Yet, this was more than offset by a threefold increase in development partner grants, which played a pivotal role in ensuring fiscal and debt sustainability. Other revenues, primarily the sale of secondary citizenship, also increased.

Figure 5: Vanuatu Public Debt Stock



GDP = gross domestic product.
 Source: International Monetary Fund World Economic Outlook Database October 2018.

Figure 6: Vanuatu Revenues, by Source (Vt billion)



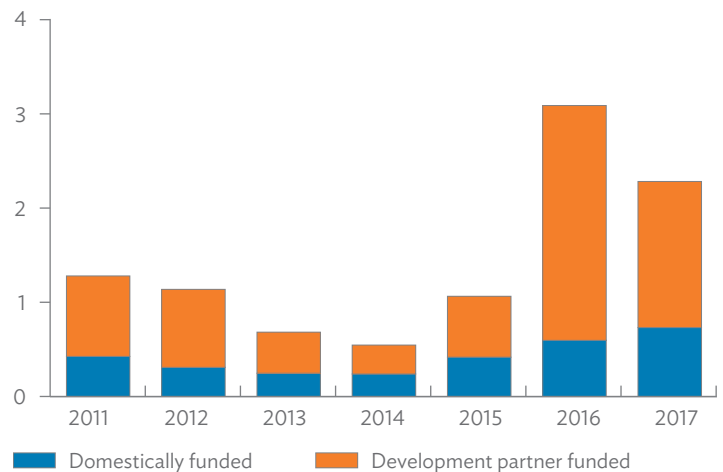
Source: Ministry of Finance and Economic Management budget documents (various years).

While the sudden scale-up in public investment caused delays in some reconstruction activities, Vanuatu experienced a construction boom in the following years (Figure 7). In 2017, construction was completed on large international wharves at Luganville, financed by the Export-Import Bank of China, and at Port Vila Lapetasi, financed by the Japan International Cooperation Agency. Several other projects are also nearing completion in 2018 and 2019.

While debt-financed development projects have supported Vanuatu's recent growth, a subsequent rapid rise in debt could pose challenges for fiscal management. The 2018 IMF-World Bank debt sustainability analysis indicates Vanuatu's external risk of debt distress is moderate (IMF 2018c). Updating the Debt Management Strategy 2015-2017 will be an important step to anchor the government's borrowing plans. If borrowing is required after a disaster struck, it should be in concessional terms to minimize the debt burden. The challenge is to invest in infrastructure projects that will catalyze growth, not only during their construction phase, but in the longer term by improving the productive capacity of the economy. This will help to avoid policies that deliver short-term benefits at the cost of creating unsustainable debts in the future.

Containing external debt will be essential, but equally critical will be ensuring that public financial management is strengthened. Prioritization of new infrastructure projects, including consideration of the expected returns from each project and the recurrent costs of operating and maintaining new assets, will be important to promote growth and keep expenditure pressures manageable.

Figure 7: Vanuatu Fixed Asset Investment (Vt billion)



Source: Ministry of Finance and Economic Management budget documents (various years).

Vanuatu's exposure to disasters and the impacts of climate change also need to be factored into infrastructure designs. Spending more upfront to climate-proof infrastructure investments can help to ensure that the investments deliver the benefits they intended in the longer term.

Shifting public debt dynamics in Nauru

Lead authors: Jacqueline Connell and Prince Cruz

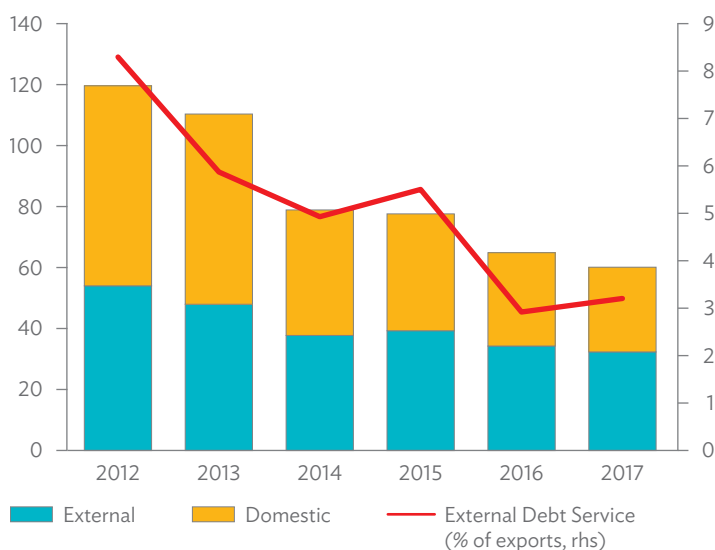
Nauru's public debt-to-GDP ratio is one of the highest among Pacific island economies, with most of the debt accumulated during its economic downturn in the 1990s–2004. The government has been using recent budget surpluses to pay its debt, although challenges remain to improve fiscal and debt sustainability.

After the phosphate boom in the 1980s, Nauru's economy gradually deteriorated, culminating in sovereign default in 2004. Much of Nauru's domestic debt had arisen from liquidation of state-owned enterprises, including the Bank of Nauru. External debt included outstanding loans and defaulted yen bonds.

Nauru's improving economic situation since 2012 has allowed the government to clear some of its long-standing debts and the IMF (2017b) estimates Nauru's public debt stock has fallen from the equivalent of 119.7% in fiscal year (FY) 2012 (ended June 2012) to 60.1% of GDP in FY2017, with domestic debt falling the most (Figure 8).

Although Nauru's average per-capita income (\$8,330 in 2017) is among the highest in the Pacific, economic and fiscal sustainability remain a challenge because of the narrow and uncertain sources of government revenue. The Regional Processing Centre and earnings from fishing license fees together accounted for around two-thirds of domestic government revenues in FY2017. This makes it vulnerable to shocks such as a potential sudden scaling down of the Regional Processing Centre. Nauru's limited access to capital markets means that government spending will need to adjust to any potential reduction in government revenue or development partner grants. The risks related with taking on new debt will need to be carefully managed, given these long-term challenges and vulnerabilities.

Figure 8: Nauru Public Debt Stock and Servicing
(% of gross domestic product)



Source: International Monetary Fund 2017 Article IV Consultation Staff Report.

Strengthening public debt management and reconciling old debts will be critical to ensure fiscal and debt sustainability. Equally important will be improving the governance and monitoring of state-owned enterprises, which contribute about half of GDP, but can create fiscal risks. SOE reforms, which have already led to positive outcomes in the power sector, could reduce fiscal risks and help promote debt sustainability.

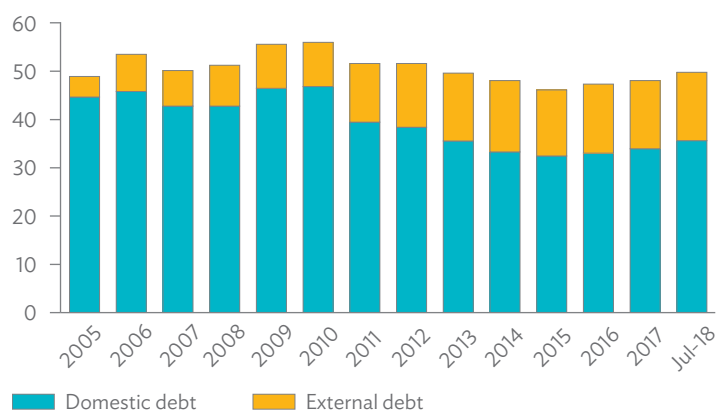
Disasters compromise Fiji's efforts toward fiscal consolidation

Lead author: Shiu Raj Singh

Fiji successfully reduced its debt burden from 56.2% of GDP in 2010 to 46.2% of GDP in 2015, which provided sufficient buffer to respond to shocks such as Tropical Cyclone Winston in 2016. Damage and losses caused by Tropical Cyclone Winston were equivalent to 29.2% of GDP, which necessitated significant fiscal outlays for emergency response, rehabilitation, and reconstruction. Bilateral partners provided support on grant terms. However, multilateral financial institutions supported Fiji with its financing needs through loans, given that Fiji is an upper middle-income country and has access to ordinary resources only. As such, post-disaster debt has risen to 50.0% of GDP in fiscal year 2018, which is the ceiling set by the government. The government plans to reduce total debt to 45.0% of GDP by 2026 in line with targets set in the National Development Plan, 2017–2036. The government also intends to maintain foreign-sourced debt at no more than 30.0% of total borrowings.

Fiji's debt stock trends are reflective of large shocks faced by the economy as a result of political events (2006), global economic shocks (2008–2009), and natural disasters (2016). With debt at 44.8% of GDP in 2005 events in 2006 and 2008 contributed to increase in debt to 56.2% of GDP in 2010. Continued economic growth and low deficits contributed to reduction in debt levels to 46.2% of GDP in 2015. Fiscal responses to Tropical Cyclone Winston led to increases in debt to 50.0% of GDP by the end of FY2018.

Figure 9: Fiji Debt Stock
(% of gross domestic product)



Sources: Reserve Bank of Fiji and ADB staff calculations.

At the outset it appears that fiscal consolidation is imminent for the government to remain within its target metrics for debt. Fiscal consolidation efforts have to be carefully managed so that these do not compromise government infrastructure investment plans, if (i) domestic revenue collection targets are not met and (ii) shocks compromise economic growth. The government in its recently approved National Development Plan, indicated that it intends to bring debt down to 45% of GDP by 2026 but, in the medium term (next 3 years), it intends to keep debt below 50% of GDP and maintain external debt at no more than 30% of the total. On the other hand, the government has highlighted that it will continue to invest in infrastructure and human capital to improve the productive capacity of the economy.

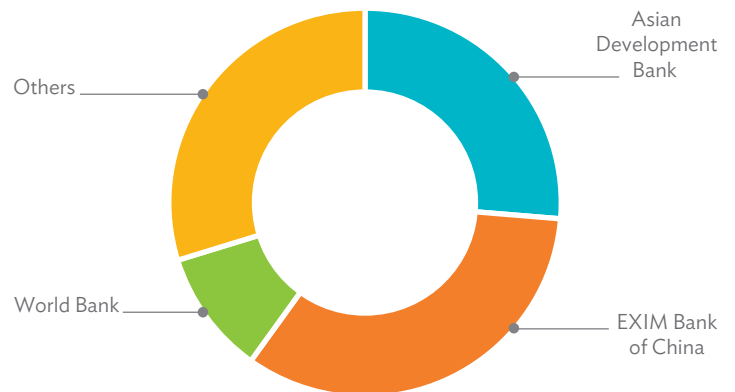
The IMF in its staff report of February 2018 found that both public sector and external debt positions were sustainable. However, the IMF encouraged the government to undertake fiscal consolidation over the medium term to reduce public expenditure during periods of sustained economic growth to rebuild buffers that deal with shocks. The IMF advice was based on the government's projected debt—the outturn is 2.5 percentage points higher at end of FY2018, given that economic outcomes were not as favorable as anticipated. The IMF report had also assumed that the government would maintain a path of fiscal consolidation.

Fiji's governance structures and policy reform environment have resulted in reasonable fiscal consolidation efforts during periods of sustained economic growth. This has enabled Fiji to remain resilient despite numerous shocks and it is able to raise finance in the international market, although on an infrequent basis. In recent years, strong reform commitment has enabled the government to gain confidence of multilateral development banks for it to access support for significant policy reforms from 2018 to 2020.

Borrowing capacity is affected by economic outcomes. The 2018 GDP growth is projected at 3.0%, similar to the growth in the previous year. Growth is revised downward from earlier forecasts, given that the agriculture sector faced significant challenges during the year as a result of cyclone related adverse conditions followed by a significant period of dry conditions. In addition, construction activity indicators reflect a slight decline in the level of activity during 2018, which is consistent with earlier expectation that under implementation of government capital projects will cause a slowdown in the growth trajectory. Growth is expected to remain at around 3.0% in 2019, with improved implementation of large public infrastructure projects that are expected to have significant economic returns. Inflation of 4.0% is estimated for 2018, taking into account higher global prices for food and fuel alongside continued increases in prices of alcoholic beverages. Prices are expected to increase by 3.0% in 2019.

The 2026 debt target requires significant efforts to contain deficits. Deficit projections of 3.5%–2.5% for FY2019–FY2021 reflect efforts towards consolidation. However, this was based on a projected debt/GDP outcome of 47% in FY2018, and this has now been revised to 50%. The fiscal plan for FY2019 will lead to breach of the current debt target. However, deficit outcomes of less than 2.0% of GDP from FY2022 to FY2026 will be sufficient to achieve the 45.0% of GDP debt target by 2026, provided that the economy continues to perform at least at an average nominal growth rate of 6.0% per annum in the absence of any significant asset sales.

Figure 10: Fiji Sources of External Borrowing
(% of total external debt)



EXIM Bank of China = The Export–Import Bank of China.
Source: Fiji Ministry of Economy.

The government may wish to reconsider its limit on external borrowing at 30% of total borrowings on account of liquidity and interest rate movements in the domestic market. Any such consideration will facilitate continued favorable interest conditions for private sector investment. Demand deposits in the banking system in September 2018 were 41.1% lower than a year ago, although no significant shift was seen in interest rates. Currently Fiji's external borrowings are from the EXIM Bank of China, the Asian Development Bank, the World Bank, and others including bonds issued in external markets.

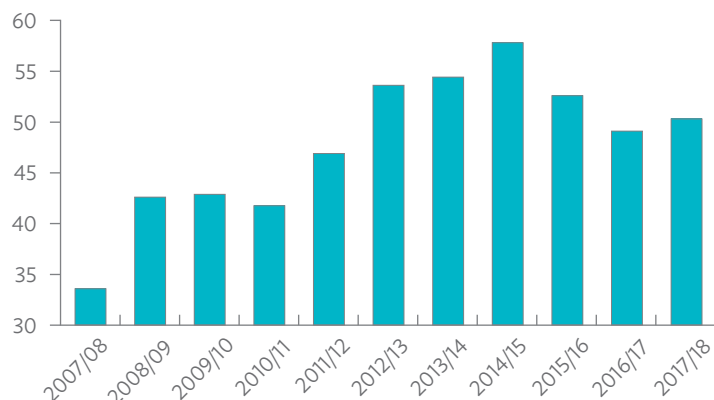
Samoa needs to continue with fiscal consolidation

Lead author: Shiu Raj Singh

Samoa had successfully reduced its debt burden from 121.7% of GDP in 1994 to 33.6% in 2008, which provided it sufficient buffer to respond to shocks such as the global economic crisis and subsequent disasters (a tsunami in 2009 and a cyclone in 2012), reflecting sound policy reforms and prudent fiscal management. Damage and losses caused by a tsunami in 2009 and a cyclone in 2012 caused a decline in economic growth over the long term. The government responded with increased expenditure for rehabilitation and new public investments to stimulate growth; this led to high debt levels. Fiscal deficit averaged 5.4% a year between FY2010 and FY2015 resulting in the breach of 50% debt target from FY2013.

Samoa's debt stock trends reflect large shocks faced by the economy as a result of global economic shock (2008–2009), natural disaster (2012), and public investment decisions. Between 2009 and 2015, Samoa has funded large constructions such as public buildings, including airport terminal buildings through foreign loans. Consolidation efforts in the last three fiscal years have reversed the trend. This reflects that strong government commitment, combined with ongoing development partner support, can rebuild fiscal buffers while, at the same time, the country's development objectives are met.

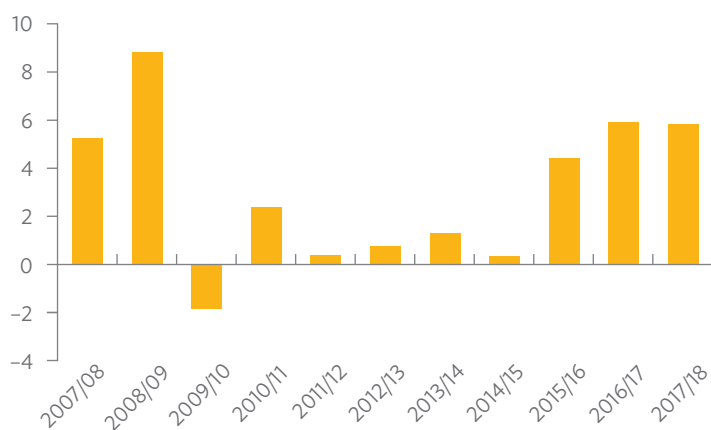
Figure 11: Samoa Total Government Debt
(% of gross domestic product)



Source: Samoa Ministry of Finance.

Total public debt at the end of June 2018 was equivalent to 50.3% of GDP (Figure 11), most of which was externally sourced (domestic debt was equivalent to only 0.9% of GDP). Total debt in June 2018 was higher than a year earlier due to continued disbursement of loans and the depreciation of the tala against major loan currencies. The government commenced a fiscal consolidation program from FY2016, targeting improvements to revenue collection and gains in expenditure efficiencies. These efforts have resulted in improvements in operating balances for the past 3 years and allowed the government to use domestic resources for development expenditures. Increased development expenditure that targets high economic returns will contribute to greater economic resilience and improved economic outcomes, increasing Samoa's capacity to achieve higher development outcomes.

Figure 12: Samoa Operating Balances
(% of gross domestic product)



Source: Samoa Ministry of Finance.

Increase in operating surpluses is indicative of changes to public financial management. Over the past 3 years, revenue has been increased by removing several tax concessions (tourism tax credit scheme, import duty exemptions, and exemptions of churches and pastors) and raising selected taxes and charges (fees and charges for

government services were adjusted for inflation, and excise duties on tobacco, alcoholic and sweetened beverages, and petroleum products). In addition, efforts have been made to improve tax and customs administration. FY2018 is the first year since FY2009 when Samoa has reported a marginal fiscal surplus. Samoa needs to continue with its consolidation efforts to recreate fiscal buffers.

Recent IMF and World Bank debt sustainability analysis reflects that Samoa is at high risk of debt default when the annual average effect of natural disasters is incorporated in medium-term projections. The staff report also recommends lowering of the debt target to 40% (over the long term), with a fiscal anchor targeting deficits of no more than 2.0% of GDP.

Maintaining low debt distress in the Cook Islands

Lead author: Cara Tinio

The Cook Islands has come a long way from the debt crisis experienced in the 1990s. During the 1980s and early 1990s, the Cook Islands borrowed heavily to finance public investments and a large government payroll. However, by the mid-1990s, this payroll had grown to unsustainable levels and certain investments did not produce the expected returns. A downturn in tourism and dengue fever outbreak led to an economic decline and external borrowing equivalent to about 140% of GDP at its peak.

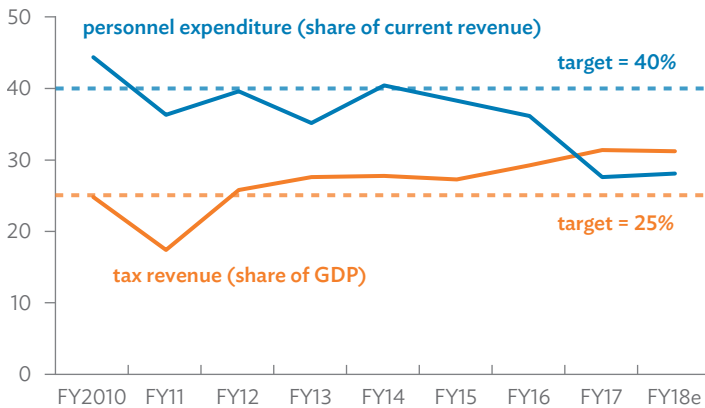
The Manila Agreement of 1998, brokered by ADB between the Cook Islands and three creditor countries (i.e., Italy, Nauru, and New Zealand), restructured the debt of the Cook Islands, and required its government to agree with ADB on target fiscal responsibility ratios that must be met before the country took on any new commercial loans. The favorable terms of the agreement helped the Cook Islands to significantly reduce its debt burden, and assistance from development partners helped implement a wide range of reforms.

In the wake of the 2008–2009 global economic and financial crisis, the Cook Islands and its development partners agreed to relax restrictions towards reducing the backlog on public infrastructure investments needed to facilitate economic recovery. Related policy-based assistance refined and updated target ratios, including those for public debt, to help maintain a balance between providing economic stimulus and ensuring fiscal responsibility (the policy brief on page 23 further discusses policy-based assistance to the Cook Islands during this period). Another condition of policy-based assistance was for the Cook Islands to undergo a Public Expenditure and Financial Accountability assessment and develop a public financial management (PFM) road map based on the results. Assessments were carried out in 2011 and 2015, and the results guided the strategies contained in the country's PFM road maps for 2012–2015 and 2016–2020.

Development partner support has helped the country uphold its commitment to keep public borrowing at a manageable level. Policy-based assistance has helped the Cook Islands implement its PFM road map as well as uphold its fiscal responsibility commitments in the post-crisis era.

Tax revenues have exceeded its fiscal responsibility target, buoyed by higher value-added tax collections, since fiscal year 2012 (ended 30 June 2012); and the public wage bill's share of current revenues has declined (Figure 13). Net debt (total obligations less loan reserves) has similarly fallen over time, with the debt-to-GDP ratio remaining well below the official threshold of 35%.

Figure 13: Cook Islands Compliance with Fiscal Responsibility Ratios (%)



e = estimate, FY = fiscal year, GDP = gross domestic product.

Note: The fiscal year ends on 30 June.

Sources: Cook Islands Ministry of Finance and Economic Management, and Asian Development Bank estimates.

The risk of debt distress is expected to remain low, but vulnerabilities remain. ADB's 2015 debt sustainability analysis of the Cook Islands, which was based on the World Bank and the International Monetary Fund template and guidelines at the time, assessed the country's risk of debt distress to be low, subject to stable growth and declining fiscal deficits. It also assumed that the government would insure its assets against disasters. A February 2018 assessment by S&P Global Ratings (also known as Standard & Poor's) gave the Cook Islands a *B+/B* sovereign credit rating, indicating that the country has the capacity to meet its financial obligations. This also highlighted continued vulnerability to adverse economic shocks and disasters, as well as to reversals in fiscal policy that would undo recent gains and erode the country's capability to honor financial commitments.

Twenty years after its debt crisis, the Government of the Cook Islands remains committed to fiscal responsibility, using target ratios to monitor operating fund flows and debt. It ring-fences funds for loan repayments, estimated to be equivalent to 4.1% of GDP in FY2017 (the policy brief on page 26 provides further detail on the Loan Repayment Fund). The government also enjoys a healthy cash at bank position, with cash and term deposits estimated at equivalent to 24.2% of GDP at the end of FY2018.

The Cook Islands is pursuing efforts to improve the business environment and promote sustainable growth through investments, including in the energy and information and communication technology sectors. Finally, to ensure resilience to disasters, the country has established a disaster emergency trust fund and secured contingent financing from the Pacific Catastrophe Risk Assessment and Financing Initiative and development partners.

The latter includes a policy-based loan from ADB that could be drawn upon in the event of a disaster. This loan requires the Government of the Cook Islands to analyze, among others, disaster and climate risks for all proposed public investment projects over NZ\$150,000 to guard against the risk of disaster damage, and continue building fiscal buffers to reduce the need to incur debt in future instances of disaster.

Impact of disasters on debt sustainability in Kiribati, Tonga, and Tuvalu

Lead author: Noel Del Castillo

Loss of lives, destruction of physical infrastructure, and damage to properties are just some of the commonly cited impacts of disasters, which are magnified in many Pacific countries given their high vulnerability. Reconstruction following these disasters commonly requires heavy expenditure and most Pacific island countries must seek external funding to augment limited domestic resources. The vulnerability of countries such as Kiribati, Tonga, and Tuvalu to disasters exposes them to serious debt concerns.

KIRIBATI

Like most Pacific island countries, Kiribati faces many development challenges due to its geographical layout. Its high vulnerability to the adverse impacts of climate change, such as higher incidences of disasters, loss of groundwater, and rising sea levels, necessitates government spending on climate change adaptation efforts.

In the face of this vulnerability, Kiribati adopted a Joint Implementation Plan for Climate Change and Disaster Risk Management (the plan) in 2014. This identifies 12 key strategies that will cost a total of \$94.6 million or the equivalent of 52.2% of its GDP from 2014 to 2023, with the infrastructure strategy component accounting for \$48.1 million. Faced with domestic resource constraints, Kiribati will be heavily dependent on the participation of development partners, if it is to successfully implement the plan.

Although the government's fiscal position has improved over time, financing issues remain. The central government has posted a fiscal surplus since 2012, primarily because of strong performance of fishing license revenue. However, revenue from fishing licenses is projected to decline because of uncertainties in weather patterns which affect the movement of the fish, and this could adversely affect the government's fiscal position. Further, the IMF expects grant financing to be gradually replaced by concessional loans. This is expected to exacerbate its already constrained resources.

These concerns indicate that Kiribati remains to be at high risk of debt distress. Although its current debt portfolio is composed only of external debt (all domestic debt was cleared in 2015), the latest Debt Sustainability Analysis for Kiribati baseline scenario shows that the present value of its external debt-to-GDP is projected to breach the indicative ceiling (30% of GDP) by 2023. Such scenarios may include shocks from less-favorable debt financing terms and conditions as well as bad export performance.

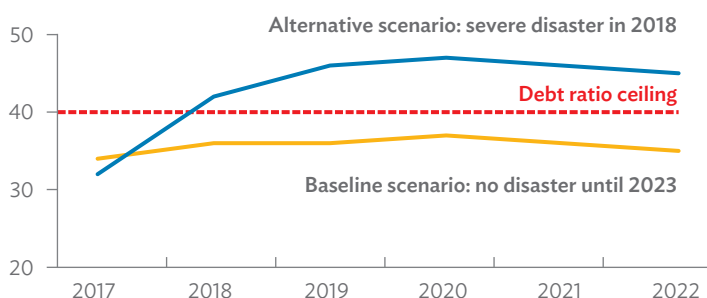
Given its limited scope for external borrowing, Kiribati, as suggested by the IMF and World Bank, must continue to pursue economic and structural reforms that will promote better management of internal resources and lowering of the debt distress rating. The role of development partners will remain vital in supporting Kiribati's development projects.

TONGA

Tonga is one of the most vulnerable countries to climate change. It was ranked as the second highest country at risk of disasters in the 2017 World Risk Report due to its high exposure to weather disturbances and sea-level rise as well as weak disaster management.

The impact of disasters in Tonga are severe both in the magnitude and cost of the damage. In the last two decades, there were four major cyclones that caused substantial damage in Tonga—three of which struck the country this decade. The latest and most destructive weather disturbance to hit Tonga was Tropical Cyclone Gita last February 2018. It cost the economy an estimated \$164.3 million in losses which is equivalent to 37.9% of Tonga's GDP. And while the immediate impact of disasters is usually focused on the physical destruction of houses and infrastructure, the medium- to long-term impact extends beyond that.

Figure 14: Tonga Present Value of External Debt
(% of gross domestic product)



Source: International Monetary Fund.

Reconstruction and recovery efforts after disasters reduce resources available to other sectors, further tighten the already limited government budget, and expose the economy to higher debt risk. The IMF–World Bank 2017 Debt Sustainability Analysis indicated that reconstruction costs due to disasters had significantly contributed to the accumulation of the country's external debt. Although external debt remains stable in the short term, the external debt distress rating is increased from moderate to high risk due to worsened external debt dynamics for Tonga in the medium term. Using the baseline scenario (no disaster until fiscal year 2023), the present value of external debt-to-GDP ratio was projected to hit the indicative debt ratio ceiling of 40% of GDP in fiscal year 2037 (Figure 14). However, the reconstruction following Cyclone Gita has resulted in increased borrowing and latest data indicate that the debt-to-GDP ratio of Tonga is now at 43.2%.

The increase in Tonga's external debt risk rating indicates the fiscal fragility of the economy and the significant impact of disasters on the country's debt sustainability. The government's policy of no non-concessional external debt has helped in controlling the country's outstanding debt. However, to maintain fiscal sustainability, the IMF and World Bank are recommending prudent spending to achieve and maintain a budget surplus equivalent to 1.0% of GDP over the medium term as well as providing for buffers at a minimum of 4–5 months of the government's recurrent expenditure. These actions can help prepare the country for future reconstruction efforts and insulate it from the variable nature of transfers and remittance flows.

TUVALU

Disasters continue to pose a threat to the Tuvaluan way of life. When Cyclone Pam hit Tuvalu in 2015, around 45% of the population were affected as the country suffered from substantial losses amounting to \$10.3 million, equivalent to 26.9% of its GDP. In these circumstances, there is a need to invest in infrastructure that can withstand future weather disturbances. Such investment and the costs of reconstruction are likely to impose a heavy burden on the government's fiscal position.

While Tuvalu's macroeconomy remains stable, downside risks persist. Aside from future capital spending, the fiscal condition will also be affected by moderating revenues generated from fishing license fees. Given the successive increases in wages and continued spending on infrastructure, the fiscal balance is expected to remain in deficit in the medium term.

Elevated spending has not only reduced fiscal buffers, but has also resulted in higher external debt of Tuvalu at 36% of GDP—breaching the debt threshold in 2017. The IMF–World Bank 2018 Debt Sustainability Analysis for Tuvalu shows that the debt ratios will breach again the threshold in the long run as the government starts to engage in concessional borrowing due to the depletion of its fiscal reserves.

The debt level of Tuvalu would be greatly influenced by at least two possible shocks: disaster and fishing revenue. Under a disaster shock scenario, the impact of a cyclone similar to Cyclone Pam would result in a larger fiscal deficit equivalent to 10.0% of GDP in 2028. Meanwhile, a fishing revenue shock assumes that changes in weather patterns would lead to a sharp decline in fishing license revenues between 2028 and 2032. This would result in a fiscal deficit equivalent to 15.0% of its GDP. Baseline scenario indicates that the debt threshold equivalent to 30.0% of its GDP would be breached in 2037. However, the exposure to disaster and fishing revenue shocks would breach the threshold by around 2030 or 7 years earlier than the baseline scenario.

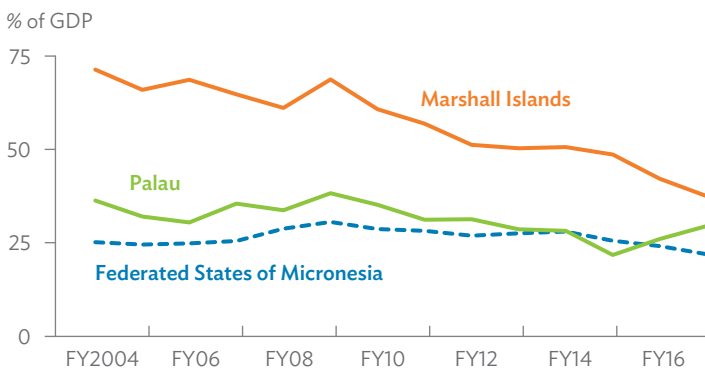
Tuvalu's vulnerability to fishing revenue and disaster shocks indicates that the country remains in high risk of debt distress. The impact of a sharp decline in fishing license revenue and extreme weather disturbances resulting in disaster would push the country to increased external borrowing. According to the IMF and World Bank, more prudent spending can better manage the fiscal deficit. This will also allow the country to better prepare for and address the impact of external shocks.

Risks to public debt dynamics in the North Pacific

Lead authors: Rommel Rabanal and Cara Tinio

Public debt, which is largely from external sources, has been stable in the Federated States of Micronesia (FSM) and Palau, and declining steadily in the Marshall Islands (Figure 15). This is due to a confluence of factors, including (i) the availability of large annual grant flows from their respective Compacts of Free Association with the United States (US), which softens any need for heavy borrowing; (ii) an ongoing boom in fishing license revenue collections that has supported recent large fiscal surpluses, particularly in the Marshall Islands and the FSM; and (iii) prudent debt management supported by recent reforms. However, medium-term risks are emerging that, left unaddressed, could put a serious dent in fiscal and debt sustainability moving forward.

Figure 15: External Debt in the Marshall Islands, the Federated States of Micronesia, and Palau



FY = fiscal year, GDP = gross domestic product.

Sources: Graduate School USA. 2018. RMI FY2017 Economic Brief. http://www.pitiviti.org/news/wp-content/uploads/downloads/2018/10/RMI_FY2017_EconBrief_Final.pdf; Graduate School USA. 2018. FSM FY2017 Economic Brief. http://www.pitiviti.org/news/wp-content/uploads/downloads/2018/08/FSM_FY2017_EconBrief_Final.pdf; and Graduate School USA. 2018. Palau FY2017 Economic Brief. <http://www.pitiviti.org/news/wp-content/uploads/downloads/2018/08/Palau-05.07.pdf>.

Chief among these risks is the impending expiration of the economic provisions under the Marshall Islands and the FSM's respective compacts of free association with the US at the end of FY2023 (ends 30 September for all three North Pacific economies). Thereafter, annual financial assistance from the US is intended to be replaced with incomes derived from compact trust funds (CTFs). These trust funds are currently in an accumulation phase, precluding any withdrawals to build assets that would be sufficient to (i) generate annual investment incomes at least equal to the real value of expiring grants and (ii) sustain the funds in perpetuity. Current accumulation trends cast some doubt as to whether target levels can be achieved in time.

MARSHALL ISLANDS

Despite significant progress in controlling its public debt, the latest debt sustainability analysis of the IMF and World Bank places the Marshall Islands at high risk of debt distress. Since 2012, the country has received sizable revenues from fishing license fees. This has been accompanied by large increases in recurrent spending, particularly on public sector wages, which accounted for 22.3% of total expenditure and increased by 8.3% in FY2017, and subsidies and transfers to state-owned enterprises (SOEs), which increased 34.5%.

On the revenue side, there is room to improve tax collections, with important reforms still pending. It must also be noted that the 52.2% year-on-year spike in fishing license revenues in FY2017 was partly due to a large appropriation of savings from the agency responsible for collecting these fees, rather than from a genuine increase in collections during the period. Finally, although it appears to be in a good financial position due to recent growth from grant-funded deposits and recent market gains, the sustainability of the Marshall Islands' CTF could be further improved upon. Results of a modeling exercise by the Graduate School USA suggest that periodic fiscal shocks are highly likely, including years wherein the government will be unable to legally withdraw from the fund.

Increasing the long-term capability to fund expenditures through domestic resources, thereby reducing the need for future borrowing, will require reversing the recent trend in expansionary spending, and implementing reforms relating to tax administration and best practices for SOE management, among others. Prudent management of currently high revenue inflows and building up of the CTF of the Marshall Islands will help ensure stable fiscal resources after FY2023. The CTF needs to grow by an estimated 12.2% a year from FY2018 to FY2023 to stabilize yearly disbursements at a level approximating the compact grants. Reviving the legislative agenda promoting fiscal responsibility and debt management will be crucial.

FEDERATED STATES OF MICRONESIA

Unlike the Marshall Islands, the FSM's CTF is seen to fall short of the target level required to generate replacement income for expiring US Compact grants, based on current accumulation trends. Latest estimates from the IMF and Graduate School USA indicate that combined financial assets in the CTF and the FSM Trust Fund are likely to allow for sustainable withdrawals—that is, without eroding the real value of the funds for future generations—of about \$35 million per annum. This will be about \$45 million short of expiring US Compact grants (around \$80 million–\$81 million) after FY2023.

A deficit of this magnitude would require substantial cuts in essential services (e.g., education, infrastructure, health); increases in taxation; a considerable increase in debt; or some combination of these. In 2017, the IMF recommended a medium-term fiscal adjustment to boost fiscal surpluses of about \$30 million in FY2015–FY2016 by another \$15 million to cover the impending shortfall post-FY2023. Although recently released data show that the FSM recorded an unexpectedly high fiscal surplus of over \$50 million (equivalent to about 14% of GDP) in FY2017, the positive outturn was helped by one-off factors that may be difficult to sustain over

the medium term. This includes a windfall \$17 million jump in corporate taxes collected from foreign insurance companies, and a further \$9 million increase in fishing license revenues—to a record high of about \$72 million—aided by a La Niña weather pattern early in the fiscal year that sent migratory tuna stocks west and into the FSM’s vast exclusive economic zone.

Ensuring a smooth transition to the post-US Compact grants period will require continuing progress in fiscal consolidation to sustain structural fiscal surpluses large enough to withstand year-to-year volatilities in key sources of government revenue. This should include renewed efforts to push through with tax reform and improve tax administration and compliance, while also controlling non-essential recurrent government expenditure, particularly the recent increases in payments for professional and contractual services. Increasing trust fund deposits will also help build assets toward a more sustainable level and help minimize possible fiscal shocks and debt pressures in years when investment income is lower than anticipated due to inevitable market volatilities.

PALAU

In September 2018, Palau and the US finally signed the 15-year Compact Review Agreement Amendments following a lengthy process that started in 2010. This brings an end to an extended period when annual US Compact financial assistance to Palau remained frozen at the FY2009 level.

An important inclusion in the amendments is additional funding for the Palau CTF. Structured differently from the Marshall Islands and FSM trust funds, the Palau CTF was intended to allow for annual drawdowns from the beginning until the 50th year of the US Compact in 2044 (i.e., \$5 million from FY1999 to FY2009, \$15 million per annum thereafter). However, simulations from FY2009 suggested that the CTF would have been depleted by FY2022 as actual investment returns were markedly lower than assumptions. The amendment increases annual US contributions from \$30 million to about \$65 million; and, based on the current trust fund level and a more realistic assumption on returns, the Palau CTF is now projected to fully fund commitments and extend well after the US Compact period.

With Palau also recording annual fiscal surpluses since FY2011—even through the current tourism downturn, surpluses equivalent to about 4% of GDP have been achieved—risks to fiscal sustainability and possible debt accumulation stem largely from off-budget pressures. Foremost of these is the large accrued net pension liability amounting to almost \$250 million (equivalent to over 85% of GDP in FY2017) of the Civil Service Pension Fund, which is now seen to collapse by 2025. Annual support from the government budget of at least \$6 million per annum will be required thereafter, rising over time as growth in benefits is seen to outstrip that of contributions.

Another potential source of strain is if agreed tariff structures meant to support financial sustainability of recent loan-financed water and sanitation and information and communication technology projects are not followed through. These loans will be serviced by SOEs, and tariff-setting must be independent of political considerations to avoid the risk of revenues falling short of operation and debt

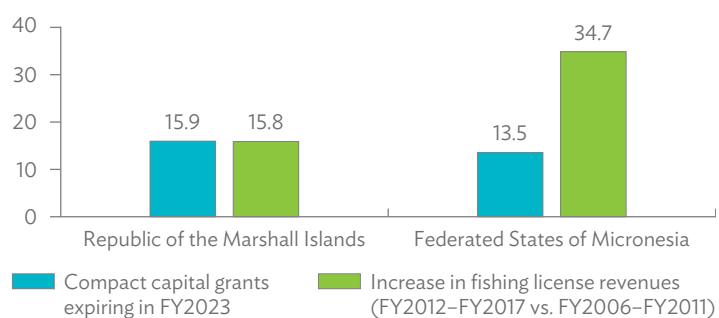
servicing requirements. Government support for sustainable pricing policies will be important to avoid any future increases in subsidies arising from potentially illiquid SOEs.

A NOTE ON CAPITAL SPENDING

Across most countries in general, the capital budget tends to be compressed the most during lean years. This was seen most recently in the steady declines of Palau’s capital spending over the period when the Compact Review Amendment was pending approval and US Compact funding remained stagnant. In turn, any prolonged period of neglecting maintenance and deferring upgrades heightens risks of failure of vital infrastructure.

For the Marshall Islands, US Compact capital grant expiring in FY2023 is in the order of \$16 million per annum and for the FSM \$13 million. Although these amounts may be partially offset by increased grants from other development partners, including ADB and the World Bank, governments should also be proactive in ring-fencing enough funds for capital expenditures. For example, part of the large structural increase in fishing license revenues due to the full implementation of a regional vessel day scheme could be saved into dedicated funds to finance future infrastructure needs (Figure 16).

Figure 16: Higher Fishing License Revenues Could Offset at Least Part of Expiring United States Compact Capital Grants (\$ million)



FY = fiscal year.

Sources: Graduate School USA. 2018. RMI FY2017 Economic Brief. http://www.pitiviti.org/news/wp-content/uploads/downloads/2018/10/RMI_FY2017_EconBrief_Final.pdf; and Graduate School USA. 2018. FSM FY2017 Economic Brief. http://www.pitiviti.org/news/wp-content/uploads/downloads/2018/08/FSM_FY2017_EconBrief_Final.pdf.

The FSM’s current backlog of over \$200 million (equivalent to about 55% of GDP) in total unspent US Compact capital grants—built up from previous years of delays amid compliance gaps and implementation capacity constraints—represents a clear opportunity to stimulate a stagnant economy through a sound public investment program. Sustained efforts to build project implementation capacity across the North Pacific will be crucial to avoid continued underspending on infrastructure even amid availability of funds. A strong infrastructure base can support longer-term productivity gains toward a more vibrant economy, which would also indirectly help reduce the overall risk of debt distress in these countries.

Timor-Leste: Analysis of the 2019 State Budget Proposal

Lead author: David Freedman

Timor-Leste’s economy has begun to stabilize following its sharp contraction in 2017, but the near-term outlook hinges on prospects for execution of the 2018 budget and the timely approval of the 2019 budget. Government spending fell by 35.0% (year-on-year) in the first three quarters of 2018 as the government struggled with constraints imposed by the duodecimal budget regime. A full budget for 2018 was approved and promulgated in late September with projected spending of \$1.5 billion, including the \$554.4 million spent from the first to the third quarter. GDP excluding the off-shore oil and gas sector (non-oil GDP) is expected to grow by at 0.6% for 2018, but problems with budget execution could see this slip.

The government has submitted its proposal for the 2019 State Budget to Parliament for review. The budget proposes a significant fiscal stimulus for 2019 with total spending including grants of \$2.0 billion, equivalent to 113.3% of forecast non-oil GDP in 2019. Spending would rise further to \$2.3 billion in 2020 before falling gradually to \$1.8 billion in 2023 (Figure 17).

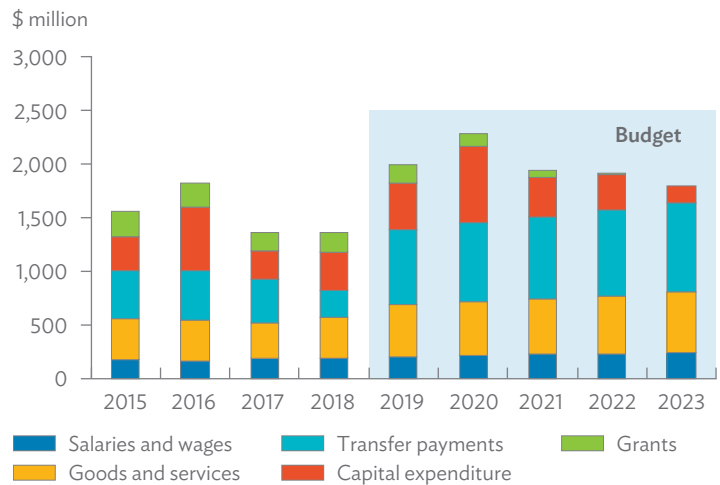
Timor-Leste’s Petroleum Fund remains the main source of financing for public spending, and the budget proposes total withdrawals of \$8.3 billion from the fund during 2019–2023. This amount exceeds the amount that can be withdrawn from the fund without depleting the country’s savings, and would see the Petroleum Fund balance fall from \$17.2 billion in September 2018 to an estimated \$12.2 billion by the end of 2023 (Figure 18).

The surge in public spending in 2019–2020 is driven by strong growth in recurrent spending and a spike in capital spending. Some stimulus was expected as development activities resume after a slower pace of activity in 2017 and 2018. However, the recurrent expenditure proposals for 2019 imply a marked expansion of government activity. Salaries and wages account for 15.3% of proposed recurrent spending in 2019, and are 28.8% higher than average expenditures on this category during 2015–2018. The proposed spending on goods and services account for 34.2% of recurrent spending and is 82.7% higher than the average for 2015–2018. The planned spending on transfers is also higher, accounting for half of proposed recurrent spending in 2019 and 12.2% higher than the average for 2015–2018.

The outlook for recurrent spending reflects specific large-scale initiatives and broader government efforts to align expenditures with priority areas such as health, education, and rural development. The 2019 budget for education is 32.1% higher than the average for 2015–2018, and spending on health is set to rise by 17.8% (Figure 19). The planned spending on agriculture is lower, although this is largely driven by lower levels of investment in irrigation works.

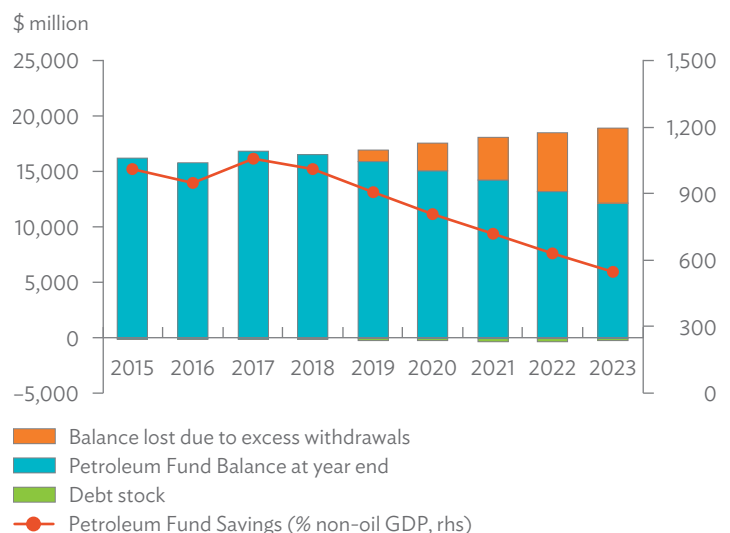
Recent analysis has shown that social transfers, including payments to veterans of the fight for independence, lift around 10% of the population out of poverty. The budget for social transfer payments is equivalent to 11.8% of non-oil GDP in 2019 and relatively unchanged from previous years. However, the 2019 budget does increase the operational budget of the ministries administering

Figure 17: Timor-Leste Actual and Budgeted Expenditures



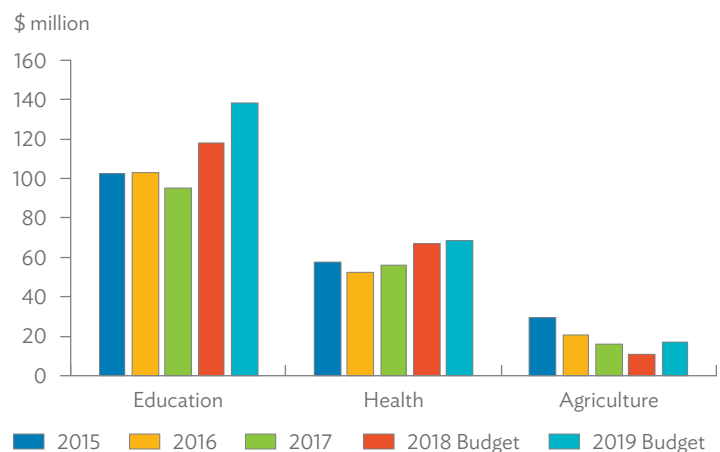
Sources: State Budget Books, various years.

Figure 18: Timor-Leste Petroleum Fund Outlook



GDP = gross domestic product, rhs = right-hand scale. Sources: Budget Book 1, 2019; Petroleum Fund Reports.

Figure 19: Timor-Leste Actual and Budgeted Expenditures



Sources: State Budget Books, various years.

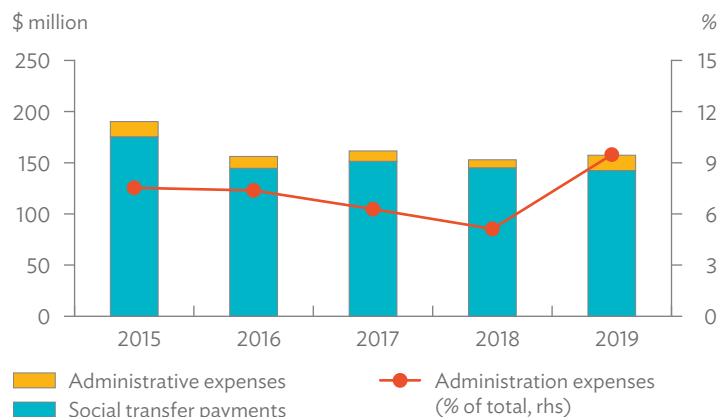
the transfer programs, and this should help to improve further the performance of these programs (Figure 20). Transfers to the Special Administrative Region of Oecusse Ambeno have been scaled back compared with previous years as major projects in the region approach completion. However, these reductions have been offset by a provision for a \$350 million investment in the oil and gas sector to acquire a 30% equity interest in the joint venture that has rights to develop Greater Sunrise, a large off-shore oil and gas field to the south of Timor-Leste. The Government recently announced the signing of an agreement with Shell to purchase an additional 26.6% of the Joint Venture equity for \$300 million but this is not reflected in the budget proposal. The projected continuation of large transfer payments associated with oil and gas development drives the overall budget trends for transfer payments during 2020–2023 (Figure 21).

The budget proposes a total of \$2.0 billion of capital investment during 2019–2023, of which 82.9% would be implemented through the Infrastructure Fund, an autonomous agency mandated to coordinate the preparation and financing of major projects. Plans to finance capital investment using concessional loans have been scaled back since 2017. The Tasi Mane project that will develop oil and gas processing and associated infrastructure on Timor-Leste's south coast accounts for 44.5% of planned Infrastructure Fund investment during 2019–2023. Road upgrades account for a further 41.5%, with the bulk of these funds due to be spent in 2019–2020. The capital budget does not include any significant allocation for improving water supply and sanitation, but \$1.3 billion of investment is estimated to be needed to achieve service delivery targets in urban areas. The proposed capital investment in other strategic sectors, including health and education, is also very limited (Figure 22).

The level and composition of government revenues are projected to change significantly during the budget period of 2019–2023 (Figure 23). Production forecasts for Bayu Undan, Timor-Leste's only active oil and gas field, have been upgraded moderately since 2017, but revenues from this field are still expected to end by 2023. The projected real rate of return on Petroleum Fund investments has been revised downwards from 3.0% per annum to 1.9% to reflect the secular decline in the yields on sovereign bonds, which make up 60.0% of the Petroleum Fund's portfolio. The budget also projects a sharp decline in official development assistance during 2019–2023 because only firm commitments are included in the revenue projections. However, development assistance is likely to be an important source of financing during the budget period and accounts for a significant share of the total budget for some government ministries in 2019 (Figure 24).

The decline in petroleum revenues highlights the need to increase domestic revenue collection to ensure fiscal sustainability. Timor-Leste's new government has committed to implement fiscal reforms, including the introduction of a new value-added tax, to increase domestic revenues to 18% of non-oil GDP by 2023. However, these plans are not fully reflected in the proposed budget. Domestic revenues are projected to grow at an average of 5.0% per annum during 2019–2023. However, domestic revenues would need to grow more quickly to achieve the government's revenue goal (Figure 25).

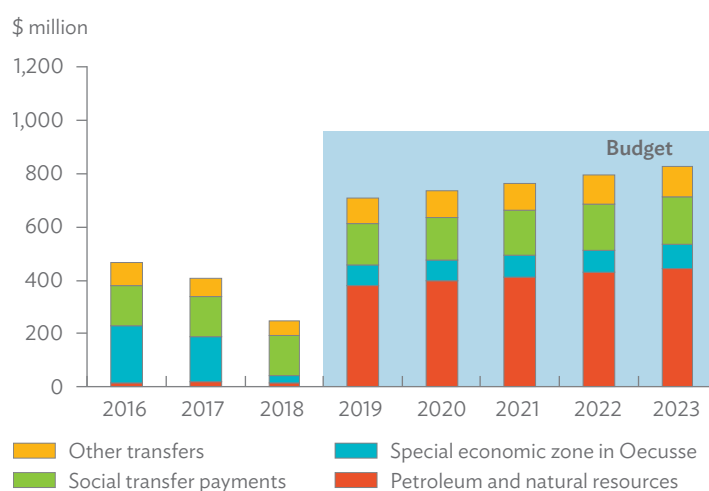
Figure 20: Timor-Leste Actual and Budgeted Social Transfer Payments



rhs = right-hand scale.

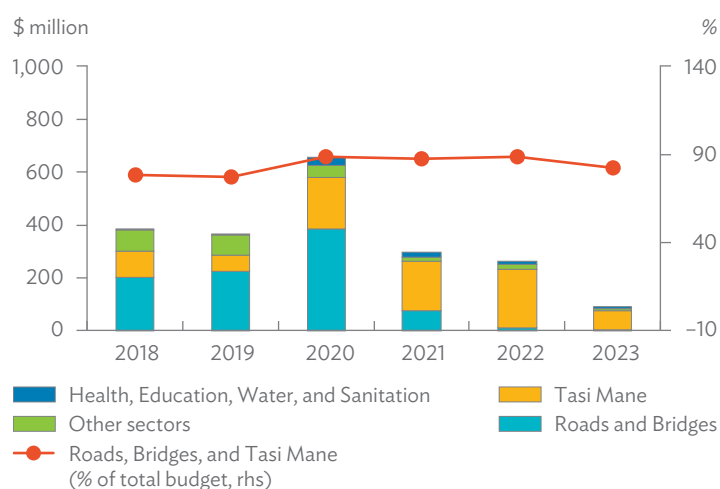
Sources: State Budget Books, various years.

Figure 21: Timor-Leste Actual and Budgeted Transfer Payments



Sources: State Budget Books, various years.

Figure 22: Timor-Leste Infrastructure Fund Budget



rhs = right-hand scale.

Source: Budget Book 1, 2019.

Figure 23: Timor-Leste Actual and Budgeted Transfer Payments

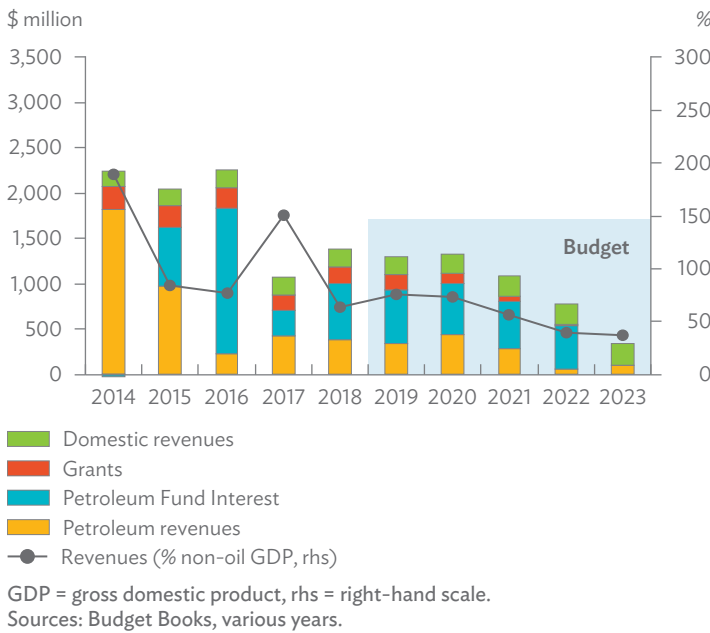
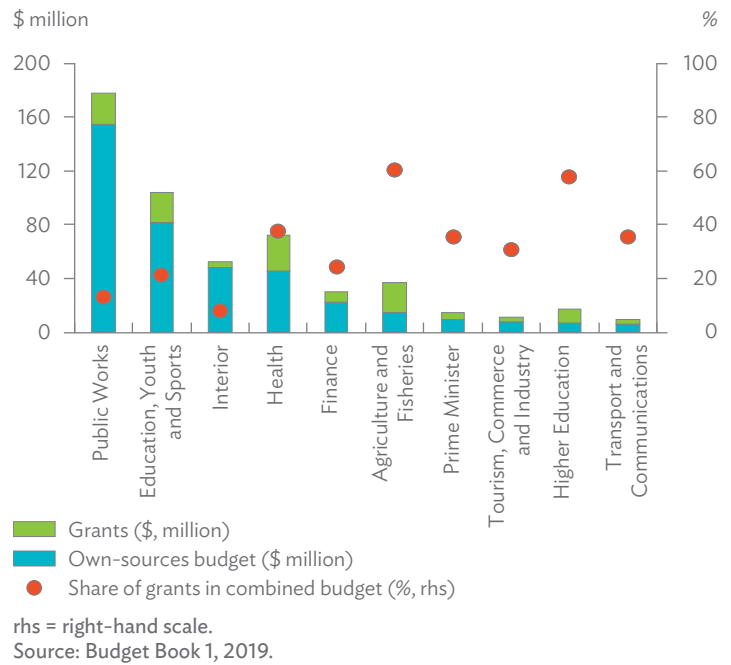


Figure 24: Timor-Leste Budget Appropriations and Donor Grants for Selected Government Ministries, 2019

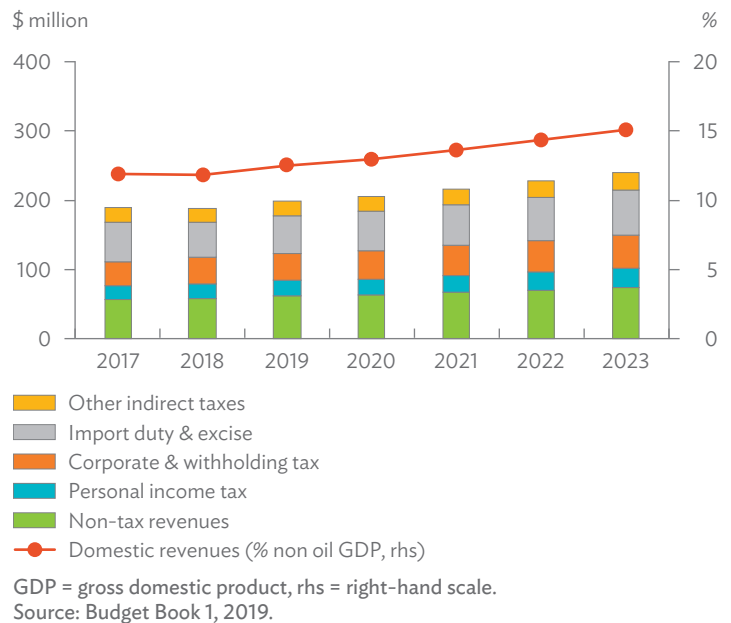


The ability to finance recurrent expenditures using domestic revenues and sustainable drawdowns from the Petroleum Fund is a key indicator of fiscal sustainability. The proposed budget projects that the share of recurrent expenditures that can be financed without recourse to excess withdrawals from the Petroleum Fund will fall from 89.5% in 2018 to 39.0% by 2023. This is the result of proposed increases in recurrent spending, slower growth of domestic revenues, and reductions in the Petroleum Fund’s estimated sustainable income due to excess withdrawals. This projection highlights the urgency of applying greater discipline to expenditures and accelerating fiscal reforms to increase revenue collection.

The financing of capital investments and productive activities is another important fiscal challenge. Acquisition of an equity interest in the Greater Sunrise Joint Venture will commit Timor-Leste to future capital contributions for development of the field. In principle, such investments are expected to generate significant positive returns. However, it is important that the associated risks of this and other commercial investments are clearly understood and properly managed. It has been estimated that Timor-Leste would need to provide a direct subsidy of \$5.6 billion to ensure the commercial viability of onshore processing of gas from the Greater Sunrise Field. This is equivalent to 31.8% of Timor-Leste’s current petroleum wealth and does not include the cost of other aspects of the Tasi Mane project such as the proposed oil refinery, the Suai supply base or the supporting infrastructure such as roads, ports, and airports. The proposed budget for Tasi Mane during 2019–2023 is \$736.6 million.

Although the exact financing requirements to develop Tasi Mane remain unknown, fully financing the project from the Petroleum Fund would strain the fund at a time when there are major needs for financing in other sectors such as water and sanitation, health, and education. Confirming the commercial and economic viability

Figure 25: Timor-Leste Domestic Revenue Projections



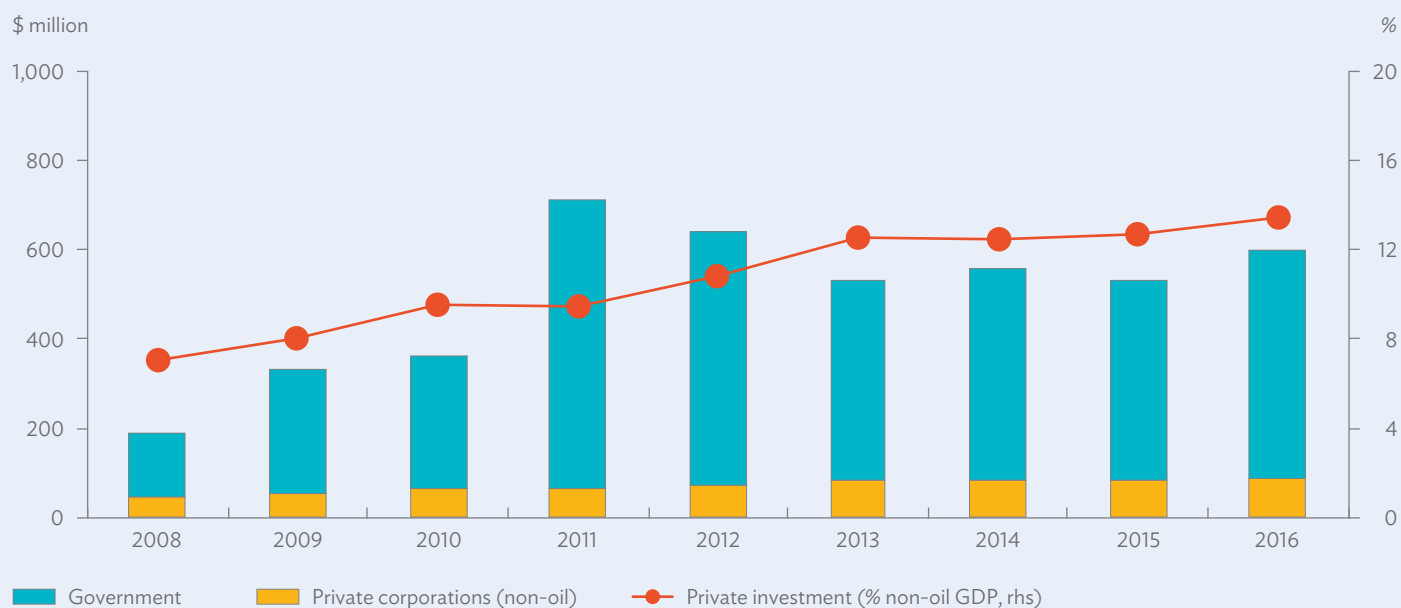
of onshore processing of oil and gas, finalizing a development plan for the field, and securing the associated commercial agreements and financing will take time. Some preliminary public investments are needed to support ongoing development of the project, but major investments in infrastructure whose use depends on subsequent development of onshore processing should be deferred until commercial agreements to develop such processing are confirmed. Conversely, as far as possible, investments in sectors, such as water and sanitation, whose social and economic returns are not conditional on other commercial decisions should be brought forward.

Managing Public Investment in Productive Activities in Timor-Leste

Increasing private investment in productive activities is a key enabler of economic diversification and employment creation. The Government of Timor-Leste has recently begun to play a more active role in this area by allocating public funds for direct investments in private businesses. In addition to a long-standing 20.6% shareholding in Timor Telecom, the government has decided to take a 40.0% equity stake in the proposed TL Cement project and up to 56.6% of the equity in the Greater Sunrise Joint Venture. A transfer payment of \$50 million was included in the 2018 budget to finance the investment in TL Cement, and \$650 million will be needed to finance the agreed purchases of Greater Sunrise equity. The cumulative value of these investments is equivalent to approximately 42.9% of 2018 non-oil GDP.

The decision to channel public resources into investments in business ventures may partly be motivated by the imbalances between public and private investments seen since 2008 (Figure 26). However, this policy also has significant risks including the loss of public resources, crowding out of private investment, and increased macroeconomic volatility. To mitigate these risks decisions to invest public funds in private business ventures should be guided by clear policies and laws that establish the criteria and objectives for investment, the institutional arrangements to ensure rigorous management, transparency, and accountability, and integration with broader macroeconomic policy.

Figure 26: Timor-Leste Public and Private Investment, 2008–2016



GDP = gross domestic product, rhs = right-hand scale.

Source: Timor-Leste National Accounts, 2000–2016.

As a general principle, commercial investments that are financed using resources from the Petroleum Fund should be subject to a system of control and oversight that is at least as robust as the framework that applies to the Petroleum Fund. Timor-Leste's Strategic Development Plan 2011–2030 and the Program of the VIII Constitutional Government 2018–2023 commit to establishing a national investment corporation to manage government investments in productive activities within Timor-Leste. The proposed investment corporation would meet the broad definitions of a sovereign wealth fund as established by the International Sovereign Wealth Fund Forum. This means that compliance with the 24 Generally Accepted Principles and Practices for Sovereign Wealth Fund Management—the so-called Santiago Principles—can be used as one test of the appropriateness of proposed mechanisms for managing public investments in private businesses.

Before initiating the establishment of a new public investment corporation, it would be prudent to complete a more fundamental review of objectives and options. There is a growing trend for sovereign wealth funds to invest in domestic assets, and to establish partnerships with other investment funds and agencies to leverage additional private capital. Timor-Leste's Petroleum Fund is already compliant with the Santiago Principles, and one option is therefore to adjust the fund's eligible instruments to include certain domestic assets.

There is a risk that broadening the investment mandate of the Petroleum Fund will undermine the Fund's management by politicizing its investment decisions. A review of objectives and options is a logical starting point for further policy development and can help to ensure that the pros and cons of each option is evaluated carefully before any decision is taken. Whichever path is followed, it is important that fiscal risks and distortions to the domestic economy are minimized.

Source: Asian Development Bank.

Sources:

- Asian Development Bank (ADB). 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Program Cluster and Loan for Subprogram 1 to the Cook Islands for the Economic Recovery and Support Program*. Manila.
- ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loan to the Cook Islands for the Disaster Resilience Program*. Manila.
- ADB. 2017. *Securing Sustainability – Nauru’s New Intergenerational Trust Fund and Beyond*. Issues in Pacific Development. Manila.
- Government of Solomon Islands. 2016. *Debt Management Strategy*. Honiara (Approved by the Minister of Finance, 10 September 2016).
- Independent Evaluation Department. 2002. *Program Performance Audit Report: Economic Restructuring Program in the Cook Islands*. Manila: ADB.
- International Monetary Fund (IMF). 2004. Staff Report on the 2004 Article IV Consultation: Solomon Islands. *IMF Country Report No. 04/258*. Washington, DC.
- IMF. 2017a. Staff Report on the 2017 Article IV Consultation: Kiribati. *IMF Country Report No. 17/386*. Washington, DC.
- IMF. 2017b. Staff Report on the 2017 Article IV Consultation: Nauru. *IMF Country Report No. 17/82*. Washington, DC.
- IMF. 2017c. Staff Report on the 2017 Article IV Consultation: Tonga. *IMF Country Report No. 18/12*. Washington, DC.
- IMF. 2018a. Staff Report on the 2017 Article IV Consultations: Solomon Islands. *IMF Country Report No. 18/57*. Washington, DC.
- IMF. 2018b. Staff Report on the 2018 Article IV Consultation: Tuvalu. *IMF Country Report No. 18/209*. Washington, DC.
- IMF. 2018c. Staff Report on the 2018 Article IV Consultation: Vanuatu. *IMF Country Report No. 18/109*. Washington, DC.
- Kumar, R. 2018. Low govt. debt supports new credit ratings. *Cook Islands News*. 1 May. <http://www.cookislandsnews.com/national/economy/item/69032-low-govt-debt-supports-new-credit-ratings>.
- Lee, D., H. Zhang, and C. Nguyen. 2018. The Economic Impact of Natural Disasters in Pacific Islands Countries: Adaptation and Preparedness. *International Monetary Fund Working Paper*. Washington, DC.
- United Nations. 2017. *World Risk Report: Analysis and Prospects 2017*. <https://reliefweb.int/report/world/world-risk-report-2017>.

Strengthening public debt management in the Pacific through policy-based operations

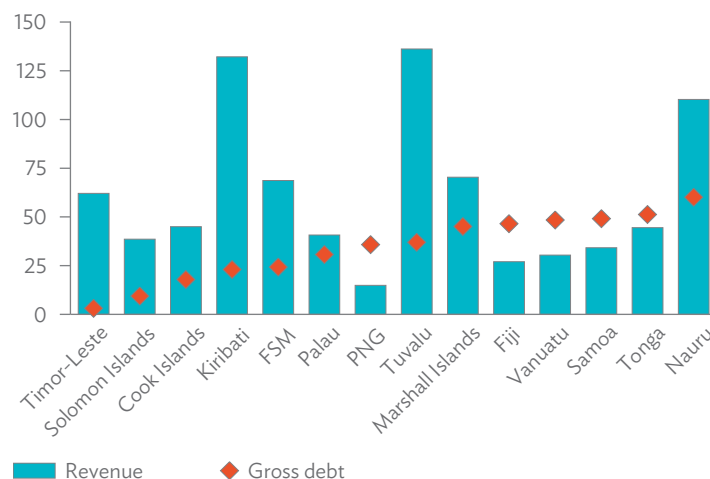
The remoteness and dispersion of most Pacific island nations result in elevated costs for the provision of infrastructure. Indeed, the 14 Pacific developing member countries (DMCs) of the Asian Development Bank (ADB) all rank in the top 15 globally, based on a gross domestic product (GDP)-weighted measure of distance from all potential trade partners, adjusting for each partner’s market size. Distance drives up transport costs to import inputs that are mostly not available locally (e.g., food and fuel) and mobilize large capital equipment in isolated islands. Further, the Pacific’s vulnerability to disasters and climate-related shocks add to infrastructure costs through higher initial investment for climate-proofed designs and greater maintenance and repair requirements due to more frequent damage.

In the context of small and narrow economic bases, the high unit costs of infrastructure investment become even more pronounced. In 2017, the GDP of 8 of the 14 Pacific DMCs was under \$500 million. With revenue sources and financing options both limited by their size, Pacific economies have relatively low carrying capacities to take on any substantial debt. Therefore, infrastructure planning and investment prioritization are even more paramount to ensure continued expansion in access to basic services without risking debt distress.

Caution is required in assessing debt sustainability in the Pacific. The debt-to-GDP ratio, a commonly used benchmark measure in assessing debt, may look relatively high because of the small size of the economy. In 9 of the 14 Pacific DMCs, total revenues for 2017 were higher than the debt stock for that year. For the smallest economies (Kiribati, Tuvalu, and Nauru), revenue-to-GDP ratios exceed 100%. However, this should not be interpreted as a license for Pacific DMCs to incur more debt. Total revenues include those that are unsustainable or volatile, such as fishing license royalties, grants, or royalties from natural resource extraction. Small populations scattered over wide areas also make government operations expensive, leaving fiscal balance in deficit or with small surpluses despite the high revenues.

On top of economic and financial due diligence to ensure sustainability of projects, as well as technical assistance work to help build systems and capacities in broader public sector management, development partners in the Pacific are also increasingly using policy-based operations to support sustained reforms. Policy-based operations provide grant or loan resources that help bridge DMCs’ more immediate financing needs, while supporting policy reforms that promote longer-term growth and poverty reduction. Financial resources may be directed through general budget support for broad fiscal and economic reforms, or sector budget support targeting policy improvements in specific areas such as health, education, or utility services.

Figure 1: Revenues and Gross Debt (2017, % of GDP)



FSM = Federated States of Micronesia, GDP = gross domestic product, PNG = Papua New Guinea.
Sources: Asian Development Outlook Database and World Economic Outlook Database October 2018.

Table 1: Policy-Based Operations in ADB’s Pacific Developing Member Countries, 2008–2017

Country	Policy-based operations approved	of which with debt management actions
Cook Islands	3	2
Fiji	0	0
Kiribati	2	2
Marshall Islands	2	2
Micronesia, Federated States of	0	0
Nauru	3	2
Palau	2	0
Papua New Guinea	0	0
Samoa	6	5
Solomon Islands	4	3
Timor-Leste	0	0
Tonga	6	5
Tuvalu	4	3
Vanuatu	0	0
Total	32	24

Source: Asian Development Bank.

Recognizing the delicate balance between financing clear investment needs and minimizing the risk of debt distress, ADB's policy-based operations in the Pacific have emphasized reforms supporting debt management and broader fiscal sustainability. Over the past decade from 2008 to 2017, ADB has implemented 23 policy-based operations supporting debt management actions and reforms across eight Pacific DMCs (Table 1). This policy brief surveys recent progress in debt management policies and practices in the Pacific and outlines further considerations toward continued expansion of infrastructure investment, while steering clear of debt difficulties moving forward.

Preparation of debt management strategies

A debt management strategy provides policy actions which promote fiscal sustainability through achieving fiscal discipline and improving transparency, accountability, efficiency, and equity in the use of public funds. Given potential debt concerns faced by many Pacific DMCs, ADB, together with other development partners, has provided financial support and technical expertise in the preparation and implementation of debt management strategies in the following DMCs:

Tuvalu. ADB extended a grant to the Government of Tuvalu in 2008 to improve government fiscal planning and management capacity. The request for ADB assistance came in response to the government's widening budget deficit, with the 2007 deficit close to 10% of its GDP. The grant facilitated the development and implementation of a debt risk management and mitigation policy and strategy, which was approved by its Cabinet in 2009. The new policy required an impact analysis of any new guarantee or debt on job creation, poverty reduction on the outer islands, gender equity impacts, and impacts on health and education expenditure.

Tonga. The global financial and economic crisis adversely affected Tonga's economy—an economic contraction and a 17.0% decline in overseas remittances in fiscal year (FY) 2009 (ended 30 June 2009) placed significant pressure on the government's expenditure programs and on informal social safety nets. To help stabilize the economy and cushion vulnerable groups from the impact of the crisis, ADB approved a grant which helped the government operationalize a debt risk management and mitigation strategy. The policy, formulated in conjunction with the World Bank, set out the processes relating to new guarantees and debt, debt repayments, and preparation of government debt portfolio reports.

Samoa. In 2010, through the second subprogram loan of the Economic Recovery Support Program, ADB helped Samoa complete a medium-term debt strategy to achieve fiscal discipline, which was part of the government's Public Financial Management Reform Plan. In 2013, ADB extended a grant to assist in the enhancement of the country's debt strategy. It allowed Samoa to provide procedures for contracting new loans and issuing government guarantees. While there was a breach of the debt ceiling (50.0% of GDP) due to a disaster, the country's debt strategy has helped keep debt manageable (see Figure 11 on page 13). Meanwhile debt servicing is seen to peak this fiscal year and gradually decline in the succeeding periods.

Marshall Islands. The Public Sector Program loan extended by ADB to the Marshall Islands, between 2010 and 2013 aimed to improve the country's long-term fiscal sustainability. As part of the program, the Cabinet endorsed public sector debt management guidelines, which regulates borrowing and lending activities of the government and requires Cabinet approval on concessional borrowings that state-owned enterprises will avail of. This guidelines were eventually adopted into the government's debt management strategy effective FY2013 (ended 30 September 2013).

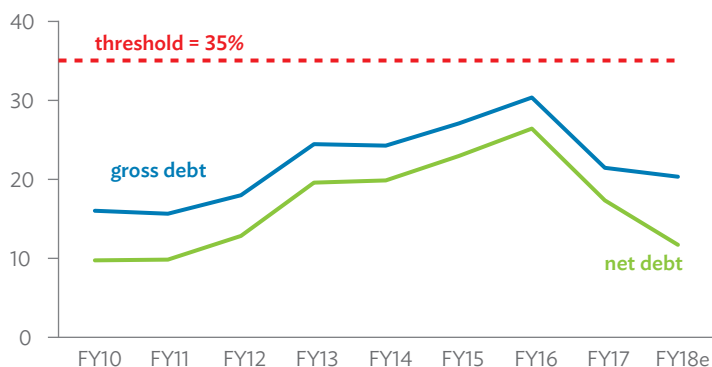
Kiribati. In 2014, ADB provided a grant to support Kiribati's Economic Reform Plan. ADB helped the government operationalize the country's Debt Policy as approved by its Cabinet in 2013. The Debt Policy is designed to ensure sound loan and guarantee decisions, avoid recourse to expensive commercial loans, prevent re-accumulation of overdraft balances, and remove inappropriate loan guarantees to state-owned enterprises and joint ventures.

Developing fiscal ratios

Recognizing that public financial management (PFM) also greatly influences debt sustainability, policy-based operations have also pursued broad-based reforms to reduce the pressure on governments to borrow and build the capacity to repay existing debt. Some of these reforms involved fiscal ratios that, analogous to the financial ratios and industry averages used to measure the performance of firms, help monitor and define targets for PFM.

After the 2008–2009 global financial and economic crisis, ADB's policy-based operations employed fiscal ratios to build fiscal sustainability in support of economic recovery. To access a loan in 2009, the Cook Islands refined and updated ratios under the 1998 Manila Agreement and set targets for tax collections, the public wage bill, and the overall fiscal deficit as well as for net borrowing and debt service. A related loan in 2012 required the government to meet the updated targets before funds could be disbursed (Figure 2). In the Solomon Islands, support for economic recovery over 2010–2011 required continued compliance with the 2005 Honiara Club Agreement that, among others, sets a threshold on government payroll spending.

Figure 2: Cook Islands Borrowing (% of GDP)



e = estimate, FY = fiscal year, GDP = gross domestic product.

Note: Fiscal year ends 30 June.

Sources: Cook Islands budget documents, various years; and Asian Development Bank estimates.

Box 1: The Case of the Solomon Islands' Tina River Hydropower Development Project

From having one of the lowest debt-to-gross domestic product ratios in the Pacific, the debt-to-gross domestic product ratio of Solomon Islands is expected to double in the next 5 years as it invests in the Tina River Hydropower Development Project. The project, which is expected to exceed \$200 million, will be financed through a mix of concessional loans, grants, and equity from the government and the private sector. It has four main components: a power-generating dam, an access road, transmission lines, and technical assistance. The number of lenders and donors not only reflects the magnitude of the project but also the extensive collaboration and support needed to put the project together. The donors include the Green Climate Fund, the Asian Development Bank (ADB), the World Bank, the Republic of Korea's Economic Development Cooperation Fund, Australia, and the International Renewable Energy Agency/Abu Dhabi Fund for Development (IRENA/ADFD).

The hydropower plant, which is projected to become operational by 2022, is expected to increase access to electricity, lower costs of power, and improve air quality in Honiara. Cleaner energy from the project is expected to replace 65% of diesel-generated electricity. Electricity tariffs, which are among the highest in the Pacific, are expected to fall by more than 5.0%, reducing the cost of doing business and boosting economic development. The construction is expected to employ and provide training to more than 300 Solomon Islanders. The dam is also expected to reduce the risk of heavy flooding as experienced in 2014.

Aside from the mix of grants and concessional loan for the Tina River Project, ADB is also providing a policy-based grant to Solomon Islands under the Improved Fiscal Sustainability Reform Program. Reforms under the program seek to improve public financial and investment management, strengthen fiscal management and sustainability, and enhance private sector investment climate. The policy actions under the program are part of the government-led multipartner reform effort started in 2009 through the Core Economic Working Group (CEWG). The CEWG has supported a series of policy-based programs that helped in reducing public debt and restoring economic stability. The most recent policy-based program is also cofinanced with other members of the CEWG: the World Bank, the European Union, Australia, and New Zealand.

Source: Asian Development Bank.

Tonga likewise developed its own fiscal ratios and set medium-term PFM targets under the auspices of a 2009 grant for post-crisis economic recovery. Besides public debt, these ratios measured spending on capital investments and maintenance, government personnel, and other operating expenses. The government used the ratios to guide budget preparation starting in FY2011, and incorporated them into its medium-term budgeting framework.

Fiscal ratios can also monitor indicators of special interest to the government. A 2012 policy grant to strengthen PFM in Tuvalu required Cabinet approval of target fiscal ratios that, among others, limit spending on the country's health services and overseas scholarship schemes. These budget items, together with public sector salaries, had been the main cause of rising government expenditures. Tuvalu's national budget document now includes a section tracking compliance with fiscal ratios to monitor the sustainability of government expenditure over the medium term.

Conclusion

The economic environment of Pacific DMCs presents perennial challenges to maintaining fiscal sustainability and avoiding debt distress. Elevated costs of infrastructure building and service delivery place a high premium on sound planning and management to prioritize the utilization of scarce government resources. By balancing project pipeline priorities to address clear infrastructure gaps with complementary policy measures to manage debt, governments in the Pacific have been working with development partners to navigate a path toward a sustainable expansion of access to basic services.

Experience has shown that policy-based operations can only be effective when they are firmly anchored in national policy priorities and are government-driven. Therefore, a clear prerequisite to sustained progress is continued government commitment to strengthen debt management. Development partners must also maintain deep engagement in debt policy dialogue, and carefully coordinate their respective policy-based operations and accompanying technical assistance initiatives, to ensure complementarities in approaches and synergies in results.

Finally, policy interventions, including debt management strategies and target fiscal ratios, should not be viewed as static, but instead be subject to continuous review and updating to adapt to changing economic circumstances and needs. A firm commitment to debt management, combined with a necessary degree of flexibility to prudently proceed with large investments that have even larger economic returns, will be crucial to safeguard longer-term fiscal sustainability, while supporting steady improvements in the well-being and livelihoods of Pacific communities.

Lead authors: Prince Cruz, Noel Del Castillo, Rommel Rabanal, and Cara Tinio

Managing public debt: Challenges in Melanesia, Micronesia, and Polynesia

Debt is an important component of public finances of Pacific developing member countries (DMCs) because it allows governments to invest in economic growth and smooth expenditures. While the ratio of public debt to gross domestic product (GDP) often receives the most attention as a measure of debt sustainability, underlying this headline figure is a number of challenges for almost every Pacific country.

There are nine Pacific DMCs at high or moderate risk of debt distress, as assessed by the International Monetary Fund (IMF) and the World Bank. The likelihood of facing debt distress can be higher in the Pacific compared with other parts of the world due to narrow export bases, limited revenue sources, and vulnerability to external shocks.

The classic challenge of public debt sustainability is managing debt service repayments when they start to crowd out other budget expenditures, particularly once a loan grace period ends. This issue is faced by both larger economies with more financing options, as well as smaller economies where financing options are more limited.

Besides this challenge, Pacific DMCs can face other issues, including (i) determining the optimal financing approach when holding large financial assets, such as sovereign wealth funds; (ii) ensuring that onlending and guarantees to state-owned enterprises or publicly guaranteed entities, which can comprise a large part of some countries' public debt liability, are appropriately recorded and managed; (iii) managing debt from nontraditional sources; (iv) adhering to fiscal targets or rules in the face of political pressure or external shocks; (v) utilizing alternative financing instruments in addition to debt, and having the capacity to manage these, as part of an overall financing approach; and (vi) dealing with the fiscal pressures and related debt needs to recover from disasters.

While day-to-day debt management in DMCs has improved over recent years, it remains an area for further capability building, particularly insofar as it supports prudent budget execution.

Pacific insights

What are some of the specific debt management challenges in Pacific countries and how are they responding to these? The remainder of this article sets out the characteristics of public debt in the Pacific and some of the challenges this is presenting. Practitioners from the Cook Islands, the Marshall Islands, Solomon Islands, and Tonga were also invited to share their experiences of debt management and debt sustainability, which are incorporated into the analysis below.

Melanesia

Papua New Guinea (PNG), Solomon Islands, and Vanuatu are all assessed at moderate risk of debt distress, while Fiji's debt levels are assessed as sustainable (Table 2).

Solomon Islands stands out among Melanesian countries as having a low public sector debt-to-GDP ratio that has come about as a result of following prudent debt management policies. The Solomon Islands debt management framework first came into effect in 2012 and was amended and strengthened in 2016. While public debt is projected to rise over the medium term, largely due to major public infrastructure investment projects, the debt management framework should ensure that the challenges of debt sustainability are appropriately managed over this period (Box 2).

Table 2: Debt Indicators, Melanesia

Country	Risk of Debt Distress	Total Public Sector Debt (% of GDP, 2017e)	Debt Service-to-Revenue Ratio (% of GDP, 2017e)	Debt Service-to-Revenue Ratio (% of GDP, 2022p)	Sources of External Debt
Fiji	Sustainable	46.6	...	...	ADB, EXIM Bank of China, IFAD, JICA, World Bank
Papua New Guinea	Moderate	35.8	30.4	37.1	ADB, EU, EXIM Bank of China, IFAD, JICA, OPEC, World Bank
Solomon Islands	Moderate	10.0	2.5	1.9	ADB; EU; Taipei,China; World Bank
Vanuatu	Moderate	51.0	13.5	15.0	ADB, EXIM Bank of China, IMF, JICA, World Bank

... = not available, ADB = Asian Development Bank, e = estimated, EU = European Union, EXIM Bank of China = The Export-Import Bank of China, GDP = gross domestic product, IFAD = International Fund for Agricultural Development, IMF = International Monetary Fund, JICA = Japan International Cooperation Agency, OPEC = Organization of the Petroleum Exporting Countries, p = projection.

Sources: International Monetary Fund Article IV Consultation Staff Reports – Debt Sustainability Analysis (various years); and publications from the region's central banks and finance ministries and treasuries.

Box 2: Solomon Islands: A Robust Framework Ensures Debt Sustainability

To ensure that sustainability and affordability are maintained, the Solomon Islands debt management framework (DMF) has been designed to be a governance framework for all matters relating to debt management in the Solomon Islands. The DMF consists of several components, including legislative instruments, overarching policy, subsidiary policies, and policy guidelines as depicted in the diagram.

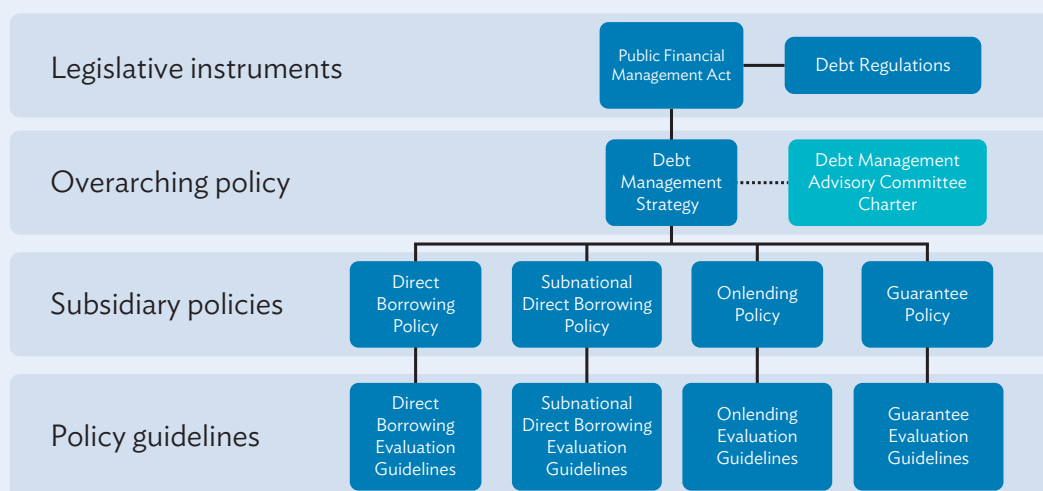
The Public Financial Management Act outlines statutory obligations relating to government borrowing.

Key statutory provisions of the DMF, as outlined in the Public Financial Management Act, are that:

- (i) the minister for finance has the sole authority to authorize new government borrowing, which includes debt that may be taken on by provincial governments or state-owned enterprises;
- (ii) the minister for finance shall seek out a recommendation from the Debt Management Advisory Committee on whether to authorize any new government borrowing;
- (iii) an annual borrowing limit must be set annually as part of the Annual Appropriation Act; and
- (iv) government borrowing may not be used to finance planned deficits in the recurrent budget.

The DMF aims to ensure that only quality government borrowing occurs by requiring that borrowing only be undertaken for high-priority infrastructure and development initiatives in line with the government's development and debt policies.

Debt Management Framework



Source: Ministry of Finance and Treasury, Solomon Islands.

Contributor: Tobais Bule, Debt Management Unit, Ministry of Finance and Treasury, Solomon Islands.

Although Solomon Islands debt levels are currently manageable, debt sustainability is a challenge for other countries in Melanesia. While PNG is a larger, more diversified economy than other DMCs and has greater ability to service debt, the debt service-to-revenue ratio is projected to increase from 30.4% of GDP in 2017 to 37.1% of GDP in 2022, potentially resulting in repayments crowding out other expenditures. PNG also faces a particular issue in needing to develop more comprehensive data on debt and other liabilities, particularly off-budget and public enterprise debt, in order to assess the overall debt burden.

In Vanuatu, public debt as a percentage of GDP has risen sharply since 2015, and the composition of debt has also changed, with bilateral creditors now a greater source of funding than multilateral creditors. The Export-Import Bank of China and the Japan International Cooperation Agency, combined, hold approximately 70% of Vanuatu's external debt.

While small economies are dependent on external sources of finance, domestic debt accounts for a large share of total debt in the Melanesian economies. For example, domestic debt accounts for approximately 70% of total debt in Fiji, and 74% in PNG. While there can be certain advantages to issuing domestic debt, it is almost always more expensive than external debt.

Box 3: Marshall Islands: From Distress to Recovery

The Marshall Islands history of borrowing—and the subsequent impacts—highlights the need for a more prudent and principled approach to incurring and managing debt. The government currently relies on several outdated and generally inadequate government liability laws, but aims to adopt a debt policy as part of a new fiscal responsibility act to be rolled out in 2019. Meanwhile, a review of the debt experience of the Marshall Islands shows four main phases over the past three decades.

The 1980s: independence and new United States Compact grants. The Compact of Free Association with the United States (US) that began in 1986 had brought significant grant resources, especially in its first 5 years. This suppressed the need to borrow in this early period, but by the end of the decade this quickly changed.

The 1990s: rapid debt accumulation. Rapid and ultimately unsustainable accumulation of debt began in 1991 when the government issued medium-term bonds guaranteed by US Compact grants. This enabled front-loading of resources to fund major capital projects. The Marshall Islands joined the Asian Development Bank (ADB) in 1991 and took on eight loans worth nearly \$50 million by 1999. The government also took on project loans from the People’s Republic of China and guaranteed several loans on behalf of state-owned enterprises. Consequently, the debt-to-gross domestic product ratio jumped to over 100%, and the country was about to enter a long period of economic and fiscal malaise.

From 2000–2010: some relief followed by crisis. The government liquidated its sovereign bond obligations in 2001 and saw some short-term reprieve due to increased grants from the US Compact and Taipei, China. This was short-lived; over the next 5 years a resurgence in expenditure coupled with increasing debt servicing obligations pushed the government into fiscal distress. It fell behind on its ADB loan repayments in 2006–2007. While it caught up in 2008, it continued to face a liquidity crisis through 2009–2010.

The recent decade: recovery and reconciliation. Economic and fiscal conditions have improved since, driven largely by growing capital expenditure and revenue from fisheries, the ship registry, and taxes. The placement of the Marshall Islands under grant-only status and higher minimum allocations from ADB and the World Bank have also helped. The government has prudently managed its debt obligations, reducing its debt-to-gross domestic product ratio from 59% in 2011 to 35% today, but remains at high risk of debt distress.

Contributor: Ben Graham, chief secretary, Marshall Islands.

Micronesia

Public debt sustainability, particularly in the case of an external shock, remains an issue for most of the small economies of the Pacific, including those in Micronesia. The Federated States of Micronesia, Kiribati, and the Marshall Islands (Box 3) are assessed at high risk of debt distress, while Nauru and Palau are assessed as sustainable (Table 3).

In Kiribati, the Kiribati Revenue Equalization Reserve Fund (RERF), Kiribati’s sovereign wealth fund, presents a particular challenge in determining the optimal financing approach when holding a large financial asset.¹

Table 3: Debt Indicators, Micronesia

Country	Risk of Debt Distress	Total Public Sector Debt (% of GDP, 2017e)	Debt Service-to-Revenue Ratio (% of GDP, 2017e)	Debt Service-to-Revenue Ratio (% of GDP, 2022p)	Sources of External Debt
Federated States of Micronesia	High	24.3	6.2	5.0	ADB, EIB, United States Department of Agriculture (Rural Utilities Services)
Kiribati	High	23.0	0.5	1.0	ADB; Taipei, China
Nauru	Sustainable	60.1	...	...	Taipei, China
Palau	Sustainable	30.7	...	...	ADB
Marshall Islands	High	35.2(a)	8.2(a)	9.5	ADB, United States Department of Agriculture (Rural Utilities Services)

... = not available, a = actual, ADB = Asian Development Bank, e = estimated, EIB = European Investment Bank, GDP = gross domestic product, p = projected. Sources: International Monetary Fund Article IV Consultation Staff Reports – Debt Sustainability Analysis (various years); and publications from the region’s central banks and finance ministries and treasuries.

Table 4: Debt Indicators, Polynesia

Country	Risk of Debt Distress	Total Public Sector Debt (2017, % of GDPe)	Debt Service-to-Revenue Ratio (2017, % of GDPe)	Debt Service-to-Revenue Ratio (% of GDP, 2022p)	Sources of External Debt
Cook Islands	Not assessed	27.0 (2019e)	...	...	ADB, EXIM Bank of China
Samoa	High	56.3	12.4	11.2	ADB, EIB, EXIM Bank of China, IFAD, JICA, OPEC, World Bank
Tonga	High	51.2	6.7	15.3	ADB, EIB, EXIM Bank of China, IFAD, World Bank
Tuvalu	High	37.0	6.5	3.7	ADB

... = not available, ADB = Asian Development Bank, e = estimated, EIB = European Investment Bank, EXIM Bank of China = The Export-Import Bank of China, GDP = gross domestic product, IFAD = International Fund for Agricultural Development, JICA = Japan International Cooperation Agency, OPEC = Organization of the Petroleum Exporting Countries.

Sources: International Monetary Fund Article IV Consultation Staff Reports – Debt Sustainability Analysis (various years); and publications from the region's central banks and finance ministries and treasuries.

In an effort to better manage the RERF, a debt policy approved by the government in 2013 established clear criteria for concessional and nonconcessional public borrowings. Owing to the high fishing revenue, the government has succeeded in making large transfers to the RERF from 2015–2017. In the medium to long term, however, RERF performance will depend on the drawdowns to finance fiscal deficits. The IMF has recommended that the government formulate a long-run RERF withdrawal mechanism to support the government's development agenda while ensuring intergenerational equity.

Nauru's debt situation is relatively unique in that it mainly comprises old debt or arrears. During the economic downturn from the 1990s through to 2011, Nauru defaulted on most of its public debt and accumulated arrears. Since 2012, the economic situation has improved, and the government has been using fiscal surpluses to accumulate deposits and clear some domestic arrears. Public external debt comprises loans from Taipei, China, overdue fees and

obligations to international organizations, and yen bonds that were defaulted in the 1990s. Public domestic debt comprises mostly longstanding liabilities related to the Bank of Nauru which effectively ceased operating in 1998.

Polynesia

Samoa, Tonga, and Tuvalu are all assessed at high risk of debt distress (Table 4).

Like other countries in the Pacific, there is the possibility for public debt service repayments to crowd out other expenditures. In Tonga, bilateral creditors have emerged as a greater source of funding than multilateral creditors. An agreement between the EXIM Bank of China and the Government of Tonga to defer repayment of principal of loans has reportedly been recently extended, which should provide some temporary fiscal space (Box 4).

Box 4: Tonga: A Proactive Approach to Debt Management

Since 2010, Tonga has managed to carefully weather the risks of any major debt storm as the government pursued a proactive debt management approach led by the Ministry of Finance and National Planning.

Active debt management measures have been adopted, including (i) annual preparation of an underlying macroeconomic and fiscal framework for the annual budget, (ii) a debt target, (iii) the implementation of a Medium-Term Debt Strategy, 2015–2018, (iv) joint donors budget support with mutually agreed policy reforms as triggers, and (v) developments in the domestic debt market.

In addition, a decision was made in 2013 to restructure the repayment terms of an EXIM Bank of China loan to provide additional fiscal space. This development led to the establishment of a sinking fund in 2015 to assist in managing the foreign exchange risks and the need to accumulate adequate proceeds to match the increased interest and principal payments for the EXIM Bank of China loan estimated at T\$13 million additional per annum. The annual repayments from the onlent borrowers from the EXIM Bank of China loan supplemented by the government on an annual basis were the source for the sinking fund.

Contributor: Tatafu Moeaki, senior country coordination officer, ADB Extended Mission – Tonga (former secretary for finance, Ministry of Finance and National Planning, Tonga).

In Samoa, the debt service-to-revenue ratio is expected to remain stable from 12.4% of GDP in 2017, decreasing slightly to 11.2% in 2022, although it remains relatively high when compared with other Pacific countries. Samoa also has relatively high levels of contingent liabilities, with contingent liabilities from government guarantees to state-owned enterprises representing 7.2% of GDP (2017).

Like Kiribati, Tuvalu's sovereign wealth fund presents a particular challenge in determining the optimal financing approach.² The fund aims to cover revenue shortfalls for current expenditure in the national budget, underpin economic development, and enhance the country's long-term financial sustainability. The initial balance of A\$27 million in 1987 has grown to an estimated market value of A\$175 million at the end of 2017. Public sector debt is mainly held by the Asian Development Bank in Tuvalu. In addition, loans on nonconcessional terms for the three fishing joint ventures—established by the National Fishing Corporation of Tuvalu and the private sector—account for a large share of public debt. These loans are guaranteed by the government, constituting contingent liabilities.

The Cook Islands Loan Repayment Fund Act 2014 ensures a framework for the prudential management of all sovereign debt and the timely allocation of money from the budget for debt servicing in the Cook Islands. Since its enactment, a Loan Repayment Fund has become the main means by which the Government of the Cook Islands manages its debt portfolio (Box 5).

Future challenges

What do the Pacific insights tell us about how Pacific DMCs are dealing with issues of debt management and debt sustainability? While the challenges related to public debt are not uniform across the Pacific, DMCs are generally dealing with a range of complex issues in a prudent manner. They often do this in a way that both draws from international good practice guidance, including from the IMF and the World Bank, and uses tools that are relevant for the specific circumstances of the country.

As the Pacific insights highlight, particularly useful and tailored tools have included: targets, ceilings, and anchors, in some cases through legislation, on prudent debt levels; use of medium-term frameworks; dedicated repayment mechanisms; and debt advisory committees.

While Pacific DMCs are generally managing the challenges related to public debt well, some are now starting to deal with increasing repayment burdens, potentially crowding out other important areas of spending. New sources of financing for some DMCs are also emerging with the recent release of PNG's inaugural \$500 million 10-year sovereign bond and Fiji's \$50 million sovereign green bond to support climate change mitigation and adaptation.

There will however be challenges for Pacific DMCs in managing the complexity associated with alternative financing instruments (such as public-private partnerships); dealing with new financing sources, including from nontraditional donors; and accessing capital markets.

Box 5: Cook Islands: Utilization of a Loan Repayment Fund

The Cook Islands has been particularly effective in managing its debt levels since experiencing a financial crisis in 1995. The Government of the Cook Islands has a fiscal rule in place, which has been the key to maintaining low debt levels. The rule provides a hard cap for net debt at 35% of gross domestic product. However, a soft cap of 30% is used by the government to allow a buffer for disasters or exchange rate shocks. The definition of net debt in this case is gross debt (including state-owned enterprise debt) less cash held in the Loan Repayment Fund. The Cook Islands Loan Repayment Fund Act was passed in 2014, which sets out the mechanism for the appropriation of funds to, and expenditure from, the Loan Repayment Fund. The Cook Islands Loan Repayment Fund Act also requires the Ministry of Finance and Economic Management to undertake a full debt sustainability analysis on the impact of proposed new debt and report to the Parliament and the public.

Full disclosure on both the Loan Repayment Fund and the value and composition of net debt is made in quarterly financial reports released by the Ministry of Finance and Economic Management. Reporting against the fiscal rule is also made in the national budget and the Half-Year Economic and Fiscal Update.

Currently, the government is in the process of developing a medium-term fiscal framework, which includes a review of fiscal rules. Based on the strong historical adherence to the debt rule, it is unlikely that this will change. However, the fiscal framework will be used to better inform the development of accompanying fiscal rules, such as the fiscal balance rule.

Contributor: Garth Henderson, financial secretary, Ministry of Finance and Economic Management, Cook Islands.

Lead authors: Hayden Everett and Alex Shahryar-Davies, Sustainable Development Sector and Thematic Division, Pacific and Development Group, New Zealand Ministry of Foreign Affairs & Trade

Endnotes:

- 1 The RERF was established in 1956 during the United Kingdom's colonial administration and capitalized using tax revenue and royalties from phosphate mining (which were exhausted in 1979).
- 2 Tuvalu, along with the governments of Australia, New Zealand, and the United Kingdom, established the Tuvalu Trust Fund in 1987.

References:

- Asian Development Bank. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Programmatic Approach and Policy-Based Grant for Subprogram 1 to the Republic of Kiribati for Strengthening Economic Management Reform Program*. Sector Assessment (Summary): Public Sector Management (accessible from the list of linked documents in Appendix 2). Manila. <https://www.adb.org/sites/default/files/linked-documents/47322-001-ssa.pdf>.
- International Monetary Fund Article IV Consultation Staff Reports – Debt Sustainability Analysis (various years).
- International Monetary Fund. 2014. *Revised Guidelines for Public Debt Management*. Washington, DC. <https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Revised-Guidelines-for-Public-Debt-Management-PP4855>.
- Government of Cook Islands. 2018. *Quarterly Financial Report. June 2018*. Avarua. http://mfem.gov.ck/images/documents/Treasury_Docs/Financial_Reports/Quarterly_Reports/2...QFR_Jun18_Report_final.pdf.
- Government of Fiji, Reserve Bank of Fiji. National Summary Data Page. Suva. <https://www.rbf.gov.fj/Statistics/e-GDDS>.
- Government of Samoa, Ministry of Finance. 2018. *Quarterly Public Debt Bulletin. Issue No. 24*. Apia. <https://www.mof.gov.ws/Portals/195/AID/AID%20Quarterly%20Debt%20Bulletin/QDB%20June%202018.pdf>.
- Government of Tonga, Ministry of Finance and National Planning. 2018. *Budget Statement. 2018/19*. Nuku'alofa. <http://www.finance.gov.to/budget-statement>.
- World Bank. 2017. *Medium-Term Debt Management Strategy*. Washington, DC. <http://www.worldbank.org/en/topic/debt/brief/mtds>.

The revised low-income country debt sustainability framework and the Pacific

Debt vulnerabilities in low-income countries, including in the Pacific, have been on the rise. Recognizing this, the executive boards of the International Monetary Fund and the World Bank approved in September 2017 a revision of the joint Debt Sustainability Framework for Low-Income Countries, which took effect in July 2018. This paper discusses some of the new features of the framework and issues that will arise in their application in the Pacific.

The Debt Sustainability Framework (DSF) for Low-Income Countries (LICs) is a tool developed jointly by the staff of the International Monetary Fund (IMF) and the World Bank to conduct public and external debt sustainability analysis in LICs. It was first introduced in 2005, and the latest reforms ensure that the DSF remains appropriate for the rapidly changing financing landscape facing LICs and improves the understanding of debt vulnerabilities. The forward-looking nature of the DSF allows it to serve as an “early warning system” for debt distress so that preventive action can be taken in time.

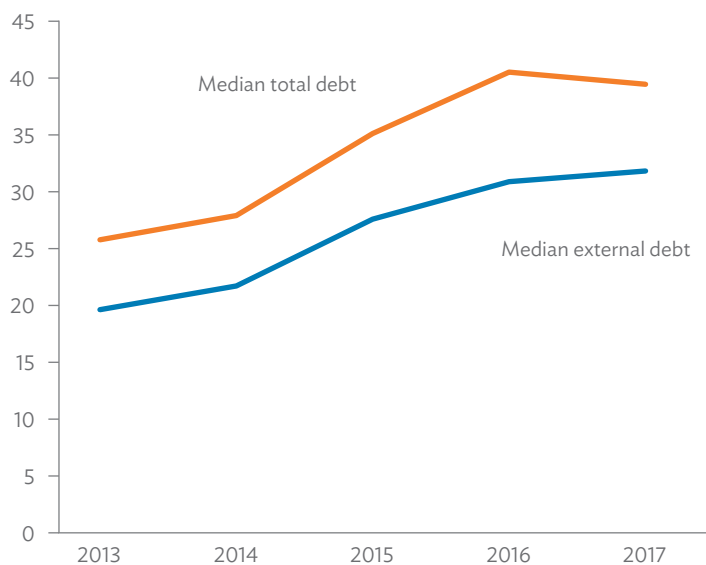
The International Monetary Fund’s analysis of debt issues in the Pacific

Debt risks in LICs have risen substantially since 2013 (IMF 2018a). Pacific LICs are no exception and face particular challenges that heighten vulnerabilities, such as a rising incidence and severity of disasters due to climate change and the end of grant financing expected in some countries over the medium term. Pacific LICs are composed of Kiribati, the Marshall Islands, the Federated States of Micronesia (FSM), Papua New Guinea (PNG), Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu. On average in these countries, both external public and publicly guaranteed and total public and publicly guaranteed debts in percent of gross domestic product (GDP) have been on the rise, increasing by about 12 percentage points in the past 5 years (Figure 3). Financing for infrastructure has been the main driver of increased borrowing.

Most Pacific economies are highly vulnerable to cyclones and the magnitude of damages is often substantial relative to national income, as has been seen in Samoa (2012), Tonga (2014), Vanuatu (2015), and Tuvalu (2015). These risks are exacerbated by other climate change factors that include drought, loss of groundwater, and coastal erosion.

Grants are a major source of financing for the smaller economies in the region. The Marshall Islands and the FSM have benefited from the support of the United States by way of the compacts of free association (compact grants), both of which are due to expire by 2023. In anticipation of this, compact trust funds were established in 2004 to compensate for the expiring grants. However, in both cases, the current track for contributions so far, together with expected investment returns, appears to fall short of replacing the grant financing, thereby posing fiscal challenges.

Figure 3: Pacific Low-Income Countries Public and Publicly Guaranteed Debt (% of gross domestic product)



Notes: 2017 includes projections. Pacific low-income countries are composed of Kiribati, the Marshall Islands, the Federated States of Micronesia, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu. Source: International Monetary Fund Debt Sustainability Framework for Low-Income Countries database.

From 2016 to 2018, Pacific LICs have seen their risk of external debt distress rise, with six countries already at high risk of debt distress, while the remaining four are at moderate risk (Table 5). Contrast this to 2015—the earliest year for which all Pacific LICs had an external risk rating—where two countries were at low risk of debt distress, four at moderate risk, and another four were at high risk. The reasons for downgrades varied:

Downgrades from low to moderate risk of external debt distress.

Timor-Leste was downgraded in 2016 relative to its previous low risk rating, reflecting the decline in oil and gas prices and its effects on debt burden indicators over the medium term. However, current debt levels are low (about 4% of GDP) and the oil-related saving balance is high (535% of GDP). PNG saw a downgrade due to higher debt service on commercial debt and heightened total debt vulnerabilities from an increase in short-term domestic debt.

Downgrades from moderate to high risk of external debt distress.

Both Samoa and Tonga better recognized long-term effects of disasters in their baseline scenarios; namely, a slowdown in growth and wider current account and fiscal deficits. This helped better reveal debt vulnerabilities.

Table 5: Evolution of External Risk Ratings of Pacific Low-Income Countries

Country	2015	2016	2017	2018 (old DSF)	2018 (new DSF)
Kiribati	H	H	H		
Marshall Islands	H	H		H	
FSM	H		H		
Papua New Guinea	L	L	M		
Samoa	M		H	H	
Solomon Islands	M	M		M	M
Timor-Leste	L	M	M		
Tonga	M	M		H	
Tuvalu	H	H		H	
Vanuatu	M	M		M	

DSF = debt sustainability framework, FSM = Federated States of Micronesia, H = high risk of debt distress, L = low risk, LIC = low-income country, M = moderate risk.

Notes: 2015 was the first year that a debt sustainability analysis was available for all Pacific LICs. For the Marshall Islands, Solomon Islands, Timor-Leste, and Tuvalu, there were no debt sustainability analysis done in 2015. Therefore, the risk ratings from 2014 were carried forward. For 2018, the new DSF was only used for Solomon Islands.

Source: International Monetary Fund Debt Sustainability Framework for Low-Income Countries database, as of 21 November 2018.

The revised DSF for LICs went into effect on 1 July 2018. The basic structure of the DSF remains the same, but the review introduced reforms to (i) ensure that the DSF remains appropriate for the changes faced by LICs (including a more diverse range of creditors and debt instruments) and (ii) further improve the insights provided into debt vulnerabilities (Figure 4).

New features of the Debt Sustainability Framework relevant for Pacific low-income countries

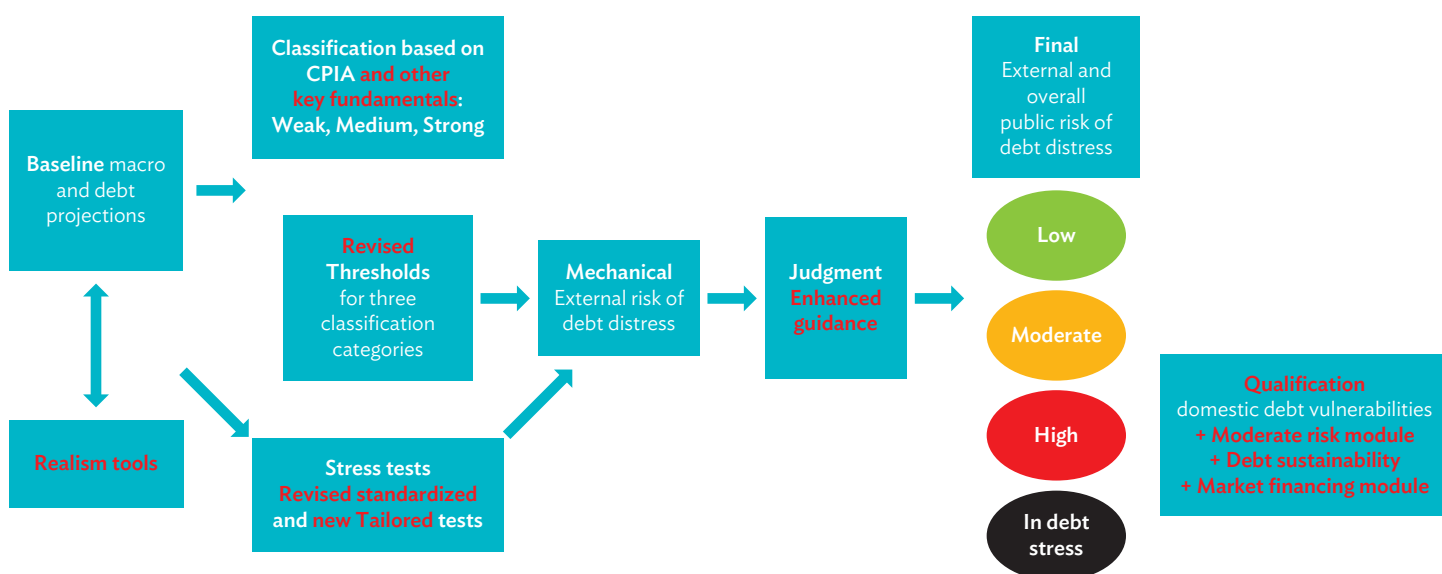
Debt coverage and contingent liabilities

The accuracy and reliability of debt sustainability analysis (DSA) outputs depend on the use of comprehensive debt data. Amid the current environment with rising debt vulnerabilities, public debt transparency has become even more important. As such, the revised DSF for LICs has stronger requirements for debt data coverage, and takes fuller account of contingent liabilities (a new customized shock scenario captures risks stemming from narrow debt coverage). At a minimum, debt data should cover debt of the central government and government guarantees. The majority of the Pacific LICs meet this requirement (Table 6). However, most countries will need to work towards including non-guaranteed debt of state-owned enterprise. To the extent that these entities are not brought into baseline coverage, they will need to be analyzed as a contingent liability.

Debt carrying capacity

A key empirical finding is that a LIC with better policies, institutions, assets, and macroeconomic prospects can sustain a higher level of external debt (IMF and World Bank 2017). In the DSF for LICs, debt carrying capacity is measured by calculating the composite indicator, which is a weighted average of the World Bank’s Country Policy and Institutional Assessment score, the country’s real GDP growth, remittances, international reserves, and world growth. As detailed in the review of the DSF for LICs, the weights are derived from coefficients of the statistical model used to predict debt distress (IMF and World Bank 2017). For each component, the 10-year average is calculated, taking 5 years of historical data and 5 years of projections, based on the IMF’s World Economic Outlook that is released twice a year.

Figure 4: Structure of the Debt Sustainability Framework for Low-Income Countries



CPIA = Country Policy and Institutional Assessment.

Note: Red text means new elements in the revised debt sustainability framework for low-income countries.

Source: International Monetary Fund and World Bank 2018.

Table 6: Coverage of Public Sector Debt in Pacific Low-Income Countries

Country	General Government		Guaranteed Debt (including to SOEs)	Non-guaranteed SOE Debt
	Central Gov't	Subnational Gov't		
Kiribati	■		■	
Marshall Islands	■		■	
FSM	■	■		
Papua New Guinea	■	■		
Samoa	■		■	
Solomon Islands	■		■	
Timor-Leste	■			
Tonga	■			
Tuvalu	■		■	
Vanuatu	■		■	

FSM = Federated States of Micronesia, Gov't = government, SOE = state-owned enterprise.

Source: International Monetary Fund Debt Sustainability Framework for Low-Income Countries database, as of November 2018.

This methodology is an improvement on the previous framework that only considered the 3-year historical average CPIA to determine a country's debt-carrying capacity. This did not capture any country-specific macroeconomic variables, nor did it account for expected changes in the outlook of a country.

Once the composite indicator is calculated, it is classified into the same three categories (strong, medium, and weak). In turn, the capacity informs the thresholds used to compare against debt burden indicators. To reduce potential variation in risk assessments from volatility in the macroeconomic projections, a change in classification requires at least two consecutive signals (calculated in April and October of each year). With two signals now available, the new framework is showing better debt-carrying capacity in six Pacific economies, often because of strong existing and forecasted levels of reserves, the second largest component of the composite indicator (Table 7). Although the comfortable current levels of reserves support favorable capacities to carry debt, maintaining this over the long run is key, especially as revenue from fishing fees or logging exports grow more uncertain in the future. The forward-looking component of the composite indicator will enable the framework to account for any changes in the outlook.

Stress tests

A key new feature in the DSF for Pacific LICs is the introduction of tailored scenario stress tests, including one for disasters. The scenario's default magnitudes involve a one-off shock of 10% of GDP to public debt (capturing fiscal impacts), and real GDP decline by 1.5 percentage points and export growth decline by 3.5 percentage points in the year of the shock (based on international experience).

Table 7: Debt Carrying Capacity under the Old and New Framework

Country	CPIA (old LIC DSF)	Composite Indicator (new LIC DSF)	Contribution from Variables Used in the Composite Indicator (%)				
			CPIA	Growth	Reserves	Remittances	World Growth
Kiribati	W	M	40	3	35 ^a	5	17
Marshall Islands	W	W	56	3	10	5	27
FSM	W	W	63	1	2	5	29
Papua New Guinea	W	M	38	4	33 ^a	9	16
Samoa	S	S	46	2	28	9	15
Solomon Islands	W	M	42	3 ^a	38 ^a	0	18
Timor-Leste	W	M	41	3 ^a	38 ^a	0	18
Tonga	M	S	42	3 ^a	31 ^a	10	15
Tuvalu	W	M	40	4 ^a	37 ^a	0	18
Vanuatu	M	M	44	3	34	3	16

CPIA = Country Policy and Institutional Assessment, FSM = Federated States of Micronesia, LIC DSF = low-income country debt sustainability framework, M = medium, S = strong, W = weak.

Note: The contributions are shown in percent, which adds up to 100.

^a Denotes the variables that pushed the country to the upgrade.

Source: International Monetary Fund Debt Sustainability Framework for Low-Income Countries database, as of October 2018.

However, users are expected to adjust these parameters based on country circumstances. Seven out of the 10 Pacific LICs have already incorporated some risks from disasters, either by adding long-run effects in the baseline or through a customized scenario in their most recent DSAs. The first application of the DSF in the region, to Solomon Islands, shows how the shock can be customized, using country-specific information from staff's research on the impact of disasters: the default 10% addition to public debt was increased to 14%, which reflects the largest damage in the country's recent past.¹ Impacts on growth (2.5 percentage points) and exports (7 percentage points) were also increased. The application also shows that such a shock will not necessarily be binding for the rating: Solomon Islands already merits a moderate risk rating due to adverse effects of a standard export shock (IMF 2018b).

Another new tailored stress test captures adverse impacts from a shock to commodity prices. This test applies to countries where commodity exports exceed 50% of exports of goods and services. The shock is to the level of exports, assuming a decline in commodity prices. Second-round effects include reduced real GDP growth, fiscal revenue, and inflation (GDP deflator). Such a shock is pertinent for PNG and Timor-Leste, which are resource-rich economies relying on commodity exports. An issue to consider while customizing this stress test is to incorporate any mitigating factors, such as netting effects from commodity imports that could be subject to the same price shock as those affecting exports.

Risk Signals and Judgment

Several changes have been introduced that are relevant for Pacific economies:

The projection horizon used to generate the risk signal

In the old framework, while a 20-year projection period was considered, the current framework only looks at the projected debt indicators relative to their indicative thresholds for the first 10 years of the projection (following the first year of projection), both under the baseline and stress-test scenarios. However, the 11–20-year projection period can be brought in when there are known factors that add confidence to otherwise inexact long-term projections. Based on the latest available published DSAs, only one Pacific economy, FSM, signaled vulnerabilities (with the baseline and stress test-scenarios breaching thresholds) in the outer (11–20) years that informed the external risk ratings, while most saw breaches in the first 5 years (IMF 2017). However, all Pacific economies should carefully consider the long-term outlook in light of the risks they face, from climate change effects, the potential decline in fish stocks, and expiration of development partner financing.

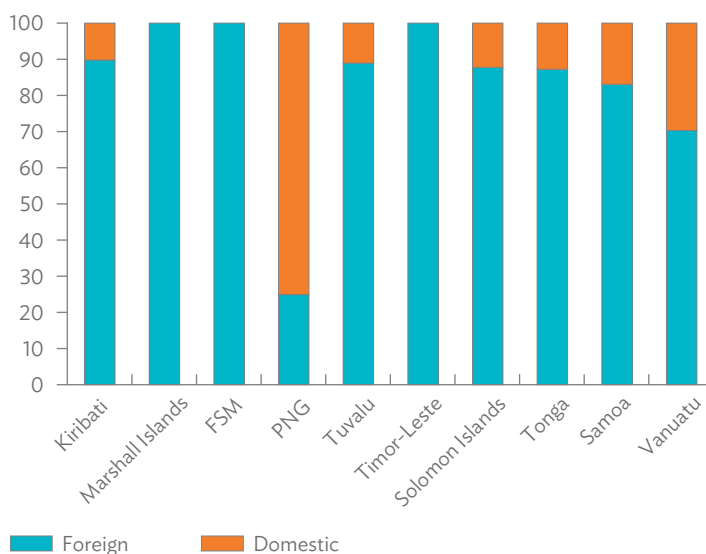
The treatment of single-year breaches of thresholds

Any single, 1-year breach of the thresholds is automatically discounted. Most common single, 1-year breaches are seen in the debt service indicators; for example, due to a large bullet repayment. In the current DSAs for Pacific economies, there are no instances of single, 1-year breaches, given that most loans contracted by these countries have repayment schedules over several years. However, this may become an issue to the extent that more countries borrow on commercial terms in the future.

The signal for the overall risk of public debt distress

The recent development of domestic financial markets in LICs points to a need for more granular and detailed analysis of domestic debt and financing, which is encouraged in the new DSF for LICs. In the Pacific, the role of domestic financing is largest in PNG (Figure 5).

Figure 5: Composition of Public Debt of Pacific Low-Income Countries
(%, average 2014–2016)



FSM = Federated States of Micronesia, PNG = Papua New Guinea.
Note: Based on the average from 2014 to 2016, except for the Marshall Islands (2013–2015) and Tuvalu (2012–2014).
Source: International Monetary Fund Debt Sustainability Framework for Low-Income Countries database.

Enhanced guidance on the use of judgment

The risk signal generated by the DSF's mechanical framework needs to be supplemented with the user's detailed knowledge of the country. For Pacific LICs, the availability of financial liquid assets would be the most relevant consideration. Some Pacific economies have substantial liquid financial assets, such as trust or sinking funds. The DSA is produced on a gross debt basis, but availability of assets can be brought into the assessment as a mitigating factor. However, it is important to consider any constraints on using assets; for example, whether they can be legally withdrawn to service debt.

Granularity

For all countries that have a final moderate risk of external debt distress, an added qualification is applied by using the moderate risk tool. This tool signals the robustness of the debt position of a country and is determined by the "space" available in the country to absorb shocks without slipping into the high risk of debt distress territory. The signals are "limited/some/substantial" space to absorb shocks. It is worth noting that this is not to be confused with fiscal space (which is a broader concept, encompassing the availability of financing, and applicable also to countries at low and high risk).

All Pacific LICs with a moderate risk rating (PNG, Solomon Islands, Timor-Leste, and Vanuatu) will be subject to this technical calculation, which should help give a sense about their buffers to absorb shocks.

Finally, for all countries that are assessed as facing high risk of external debt distress, an assessment of whether debt is sustainable is needed. This would be based on whether there are significant sustained breaches, and may involve a careful consideration of the length, size, timing, and reversal path of projected debt burden indicators. None of the Pacific LICs are currently deemed to face unsustainable debt.

Policy implications

At the IMF, DSF for LICs risk ratings inform application of the debt limits policy, which governs debt-related conditionality in IMF-supported programs. At present, no Pacific LIC has such a program. The World Bank uses the outcome of the DSF for LICs to inform the application of its grant allocation mechanism. Other multilateral development banks rely on the DSF for LICs ratings as well in designing their lending programs.

Conclusion

As the revised DSF for LICs gains traction, analysts should be able to take advantage of the new features to enhance their understanding of debt vulnerabilities. The expanded use of country-specific information (such as the assessment of the debt-carrying capacity, customizable shock scenarios, and determination of space to absorb shocks) provides tools for analyzing the risks faced by the Pacific economies. This deeper analysis also points to a need for greater dialogue, and country authorities should take advantage of opportunities for this.

Lead author: Joyce Miharu Saito, International Monetary Fund

Endnote:

- 1 Please see the detail in the IMF Working Paper 18/108, The Economic Impact of Natural Disaster in Pacific Island Countries. <https://www.imf.org/en/Publications/WP/Issues/2018/05/10/The-Economic-Impact-of-Natural-Disasters-in-Pacific-Island-Countries-Adaptation-and-45826>.

References:

International Monetary Fund (IMF). 2017. Federated States of Micronesia: 2017 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for the Federated States of Micronesia. Washington, DC.

IMF. 2018a. *Macroeconomic Developments and Prospects in Low-Income Developing Countries—2018*. Washington, DC.

IMF. 2018b. 2018 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for the Solomon Islands. Washington, DC.

IMF and World Bank. 2017. *Review of the Debt Sustainability Framework for Low-Income Countries: Proposed Reforms*. Washington, DC.

IMF and World Bank. 2018. *Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries*. Washington, DC.

Debt Sustainability Framework for Low-Income Countries sources

www.imf.org/dsalic

www.worldbank.org/en/topic/debt/brief/dsf

Sustainable borrowing to finance investment and climate adaptation needs in Pacific island countries

Recently, several initiatives have been put forward to accelerate infrastructure development in Pacific island countries through debt financing. This includes a proposal by the Pacific Island Forum Secretariat and the Pacific Island Investment Forum to develop a co-investment framework to mobilize part of the region's provident/superannuation funds for regional infrastructure finance; the Australian Infrastructure Financing Facility, and other bilaterals offer to provide loans for infrastructure financing, most significantly from the People's Republic of China (PRC). These complement traditional infrastructure financing provided by multilateral institutions, such as the World Bank and the Asian Development Bank (ADB), through a mixture of loans, credits, and grants, depending on individual countries' capacity to carry debt.

This note reviews the economic case for debt financing of infrastructure. After a short overview of the infrastructure financing needs of the Pacific island countries (PICs), the note examines the link between infrastructure financing and economic growth in the Pacific. This is followed by a review of the scope of individual PICs to use debt financing for infrastructure development. The note concludes by drawing out some main lessons, including the implications of the combination of large infrastructure financing needs with limited capacity on the part of the PICs to carry significant amounts of debt.

What are the investment and climate adaptation needs of Pacific island countries?

PICs have large unmet infrastructure needs, though there are large differences across and within countries. Less than 30% of Pacific islanders have access to electricity and sanitation, and less than 50% have access to improved water sources and information and communication technologies. These average figures hide large disparities between countries; for example, access to electricity varies from 13% in Papua New Guinea (PNG) to 90% or more in Samoa, Tonga, Tuvalu, the Marshall Islands, and Nauru; road density varies between less than 5 kilometers (km) of road per 100 square km of land area in PNG to 90 km in Tonga. There are disparities between rural and urban areas; for example, in Solomon Islands, 81% of the urban population has access to improved sanitation, but this is accessible to only 15% of people in rural areas. For PICs, maritime infrastructure is of particular importance to facilitate the movement of people and goods. However, only a small share of inhabited islands in the Pacific has adequate landing facilities for boats, which makes loading and offloading persons and goods both time consuming and often treacherous.

ADB (2017) estimates that the national infrastructure needs for the Pacific would be around \$42 billion over the period 2016–2030. Climate proofing of infrastructure is estimated to require an additional \$4 billion. This translates into annual infrastructure requirements of about \$3 billion or about 9% of projected gross domestic product (GDP). As noted in the report, these estimates do not account for a variety of factors specific to the PICs, which

makes it likely that infrastructure financing needs for these countries are even higher. Such factors include the high cost of infrastructure development in remote locations, the damages inflicted regularly on physical infrastructure due to the region's high vulnerability to natural hazards, and the existing low levels of infrastructure development and poor maintenance. In addition, the ADB report estimates that currently, public and private infrastructure spending amounts are in the order of 2.5% and 0.3% of GDP, respectively in the Pacific. The potential fiscal space for increasing public infrastructure spending is estimated to be about 2.2% of GDP, with about 0.6% in the form of debt, 1% of GDP through revenue increases, and 0.6% through spending reorientation. Adding existing spending to the potential fiscal space would provide infrastructure financing of about 5% of GDP in the Pacific and a residual infrastructure financing gap of about 4% of GDP.

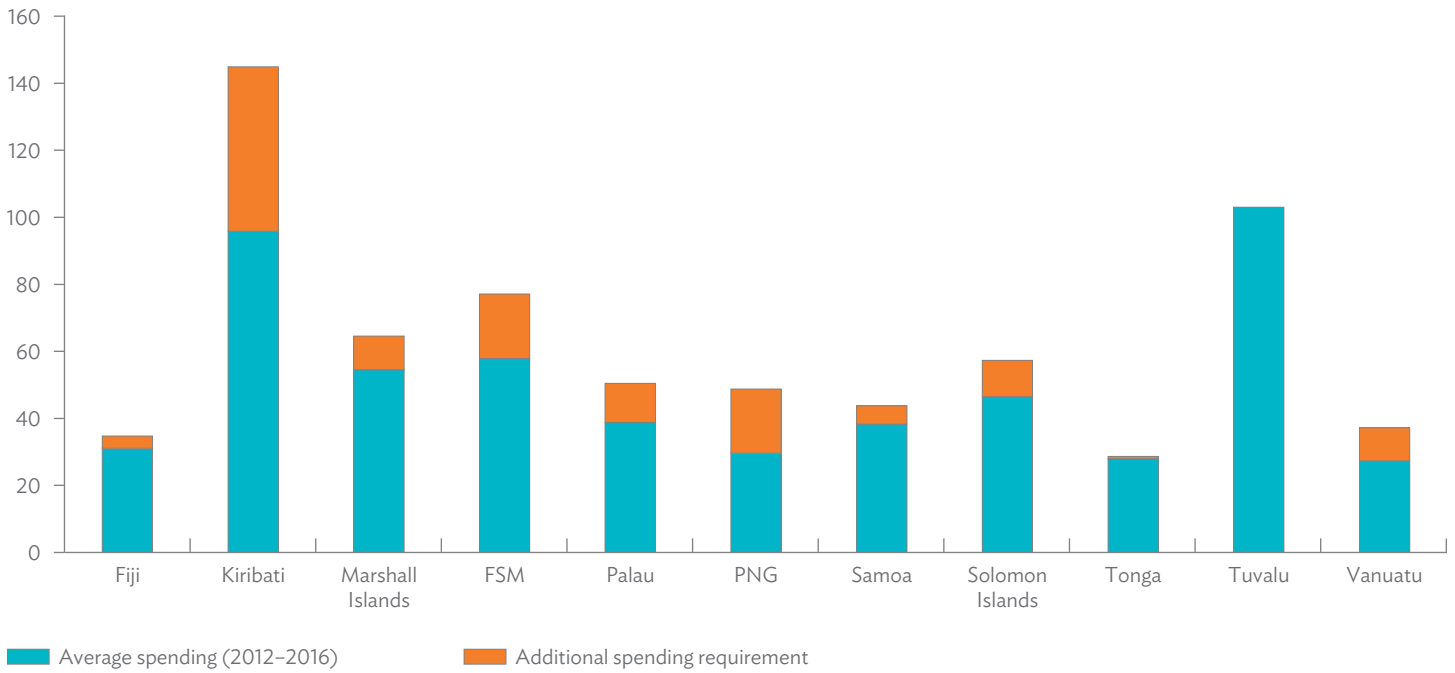
The World Bank (2016a) presents a broader assessment of long-term public sector financing needs of PICs, which not only considers infrastructure, but also human capital investment.¹ Additional spending requirements vary significantly across PICs, but are estimated to be around or above 10% of GDP annually for most of these countries (Figure 6) even after assuming significant improvements in the efficiency of public spending in some cases. These estimates do not include the financing needs arising from climate change. Measures to protect coastal areas from sea level rise and to increase resilience to natural disasters are costly. For low-lying atoll nations such as Kiribati and the Marshall Islands, required annual investments for climate adaptation could exceed 20% of GDP, while for most other PICs, they are projected to be in the range of 5%–10% of GDP (World Bank 2016) (Figure 7).

What is the outlook for financing investment and climate adaptation?

Before reviewing the case for debt financing of public investments in the PICs, this note reviews the scope for mobilizing resources from other sources, including greater expenditure efficiency, increased domestic resource mobilization, official development assistance, income from trust funds, and through private sector participation.

While there is certainly some scope for enhancing public sector efficiency, the potential gains in the smaller PICs are likely to be small. Remoteness, geographic dispersion, and small populations result in high cost of public service delivery for the PICs and relatively large public sectors in relation to the size of the economies. Taking these geographic factors into account, public sectors in most PICs appear to be about as efficient or more efficient than those in other developing small states. Countries with the largest potential for significant efficiency gains include PNG, Vanuatu, and Solomon Islands (World Bank 2016a). With respect to infrastructure, significant efficiency gains could be achieved from better infrastructure asset management specifically, if more of the combined donor and domestic resources went to maintenance spending.

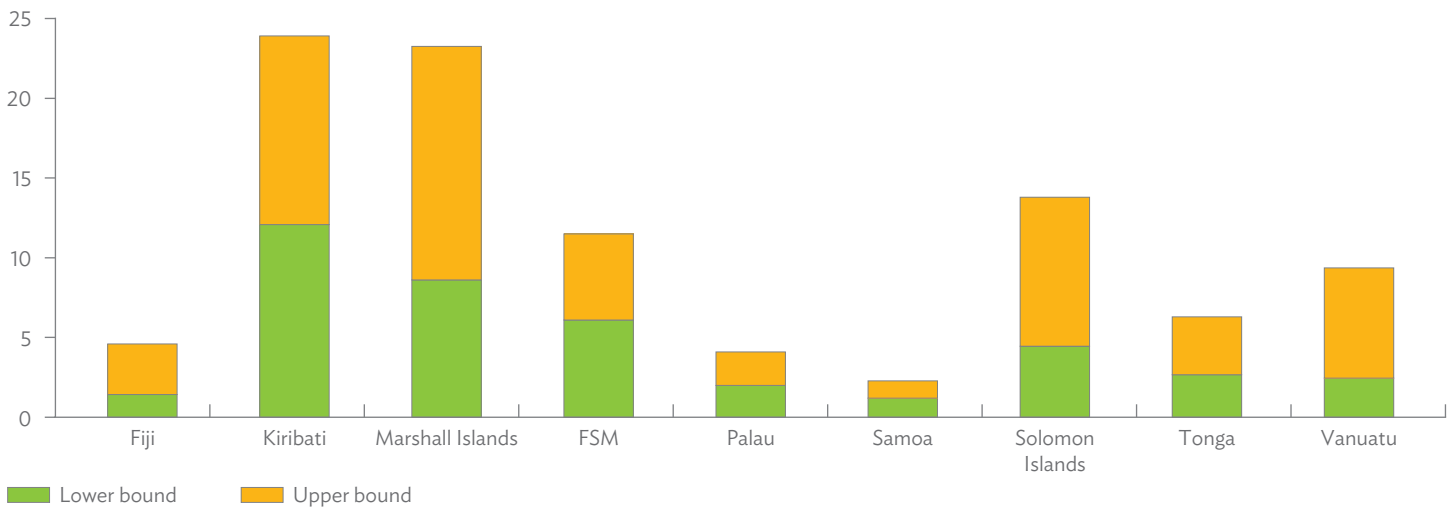
Figure 6: Projected Additional Annual Financing Requirement to Achieve Improved Access to Infrastructure and Human Development
(% of gross domestic product)



FSM = Federated States of Micronesia, PNG = Papua New Guinea.

Source: World Bank. 2016a. Financing Pacific Governments for Pacific Development. Pacific Possible Background Report No. 7. Sydney: World Bank (unpublished).

Figure 7: Annual Cost of Coastal and Infrastructure Adaptation
(% of gross domestic product)



FSM = Federated States of Micronesia.

Source: World Bank. 2016b. Climate and Disaster Resilience. Pacific Possible Background Report No. 6. Sydney: World Bank (unpublished).

Domestic revenue mobilization for most PICs is comparable with that in other small states and countries at similar stages of development and the scope for further and significant increase in fisheries revenue is limited. Achieving further gains in revenue mobilization will require PICs to impose higher taxes and collect more non-tax revenue than their counterparts at similar income levels (World Bank 2016a). Several countries such as Kiribati and Tuvalu have benefited from dramatic increases in fisheries revenue over the past five years. However, the scope for further increases in fisheries revenue is limited for most PICs and will require significant efforts to broaden membership in the Parties to the Nauru Agreement (PNA) and enhance the efficiency of the Vessel Day Scheme (World Bank and Nichols Institute 2016).

The PICs have per capita official development assistance levels that are among the highest in the world. Australia, New Zealand, and the US provide large amounts of grant funding to the PICs, as does the European Union. In recent years, the World Bank and ADB have also significantly increased financing volumes for the PICs. Due to their geostrategic position, PICs occasionally become the beneficiaries of “aid contests,” when countries seek to gain influence in and support from these countries. At present, New Zealand and Australia are intensifying their engagement with the PICs in response to the increased presence of the PRC in the Pacific. As highlighted by Warner (2014), the quality of investment during such investment drives is often poor, especially if there is a focus on the volume rather than the quality of aid. In addition, the Federated States of Micronesia (FSM), RMI, and Palau in the North Pacific benefit from significant official transfers from the US under their compacts of free association. However, a significant share of these official transfers is scheduled to end in 2023 and 2024.

In several of the PICs, trust funds are also a significant source of public financing. Palau, RMI, and FSM are accumulating resources in trust funds with the intent of being able to draw on income from them when grant funding under the compact of free association with the US comes to an end. Kiribati and Tuvalu have large trust funds resourced partly by development partners, but also from natural resource rents, most recently from large rents from fisheries licenses. While these trust funds will continue to play an important role in helping to deal with economic volatility and financing government expenditure, current projections suggest that they will not be sufficient to secure long-term fiscal sustainability in most cases (World Bank 2016a).

The private sector can play an important role in infrastructure development and it is important that private sector solutions are considered before committing public resources. There are already successful initiatives of private sector involvement in the energy, ICT, and inter-island transport sectors. PICs are also strengthening their policy and regulatory environments to facilitate private sector involvement, such as the adoption of frameworks for public-private partnerships and the development of capital markets. However, based on global experience and considering the particular geographic challenges of the PICs, it is likely that public financing of infrastructure will remain dominant.

Finally, even if PICs were able to achieve faster economic growth than in the past, this would, in most cases, still not generate sufficient revenue to cover infrastructure and human development financing

gaps. Achieving public spending levels consistent with infrastructure and human development targets is likely to remain difficult in the North Pacific countries and in PNG, Solomon Islands, and Vanuatu (World Bank 2016a). As such, there will be a continued need for external funding in the form of grants and credits.

Will investment in infrastructure generate higher economic growth in Pacific island countries?

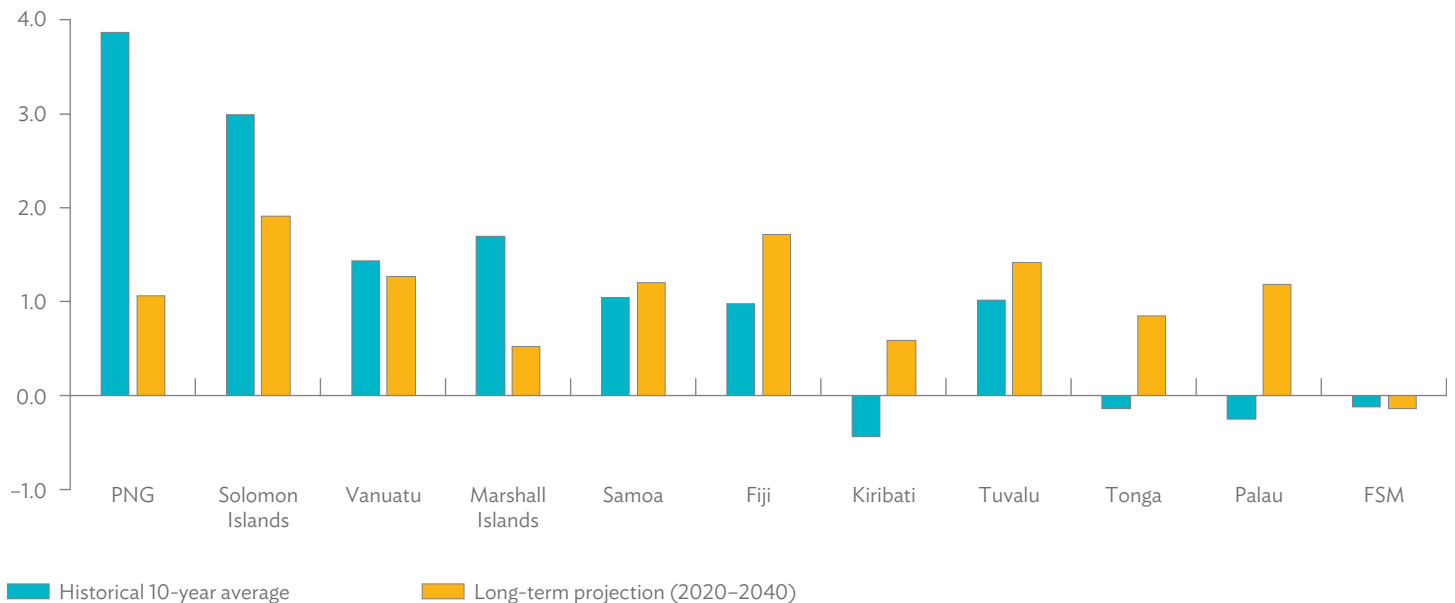
The economic case for borrowing for infrastructure development rests on the link between investment and economic growth. Economic growth fostered by investment can generate increased government revenue, which then can be used to service debt. Globally, the link between investment and economic growth is somewhat tenuous (Berg et al. 2015, Warner 2014). While investment is generally believed to be a necessary condition for sustained long-term economic growth, there are many instances where high investment does not result in economic growth. A range of factors moderates the link between investment and growth, such as the quality of public investment management and the existence of other binding constraints to economic growth. Moreover, weaknesses in revenue mobilization may limit the capacity of the public sector to capture a sufficient share of economic growth as government revenue that can be used to service debt.

The human geography of PICs results in and severely constrains their economic growth prospects, and thus their capacity to take on and service debt. Small population sizes, extreme remoteness, geographic dispersion, and environmental fragility imply that the range of activities in which these countries can be internationally competitive is limited to natural resource-based sectors, especially tourism, fisheries, and (deep-sea) mining.² As domestic economic opportunities are limited, many small PICs have to rely on labor mobility opportunities, remittances, and foreign aid as important sources of incomes and employment.

Real average annual per capita economic growth in most small PICs was below 2% in 2005–2015. The World Bank (2017a) examined the long-term growth prospects of PICs if they were to take full advantage of economic opportunities brought forth by tourism, fisheries, deep-sea mining, labor mobility, and information and communication technology-related activities. While most countries could achieve higher growth in the range of 2%–3% per year, this would be contingent on a favorable external environment and requires significant economic policy efforts. Thus, growth projections of most debt sustainability analyses for PICs appropriately reflect the historical low growth performance as the baseline (Figure 8).

The economic case for growth enhancing infrastructure development financed by debt is further weakened by the high unit cost of infrastructure investments, also as a result of the geography of PICs. Not only are the potential growth impacts of infrastructure development in PICs generally much lower than in larger and less-remote countries, but the unit cost of infrastructure development is also much higher. This further reduces the potential rate of return on most infrastructure investments. For example, the estimated unit cost of road rehabilitation in Fiji is four times the cost in rural Australia (ADB 2017). Considering that Fiji is one of the larger and better-connected countries in the Pacific, the unit cost in smaller and more remote islands is likely to be significantly higher.

Figure 8: Economic Growth in the Pacific: History and Projections
(annual average growth rate, %)



FSM = Federated States of Micronesia, PNG = Papua New Guinea.

Source: World Bank. 2017. Pacific Possible – Long-term Economic Opportunities and Challenges for Pacific Island Countries. Washington, DC: World Bank.

Further, some of the PICs' main sources of income growth and foreign exchange—remittances from migrants, fisheries license fees, and aid—are not dependent on domestic infrastructure. Instead, successful outcomes are the results of PICs' capability to negotiate favorable agreements with larger economies (Bertram 1986), such as seasonal worker schemes with Australia and New Zealand or the Parties to Nauru Agreement for fisheries. Effective collaboration among PICs to strengthen their negotiating power is often critical. The key area of economic opportunity that does require significant infrastructure investment is tourism (World Bank 2017a). However, in addition to improved infrastructure, a range of other constraints will also need to be addressed to foster growth in the sector.

As a consequence of the unique economic structure of PICs, the value of infrastructure is often the direct improvement of their populations' livelihoods without necessarily being able to generate growth dividends that could be used to service debt (Bertram 2011). For example, land-based and maritime infrastructure is essential to avoiding the isolation of people and communities in PICs and to ensure that people have access to basic goods and services, even if the investment does not generate significant economic returns. Further, due to the high frequency and intensity of natural disasters in the Pacific, much investment spending serves to restore infrastructure destroyed by natural disasters rather than expanding infrastructure services.

These issues have two important consequences. First, the growth impact of infrastructure development is often limited to short-term, demand-side effects. Infrastructure development creates economic activities primarily during the construction phase, with positive impacts on the construction sector and multiplier

effects on the rest of the economy, even if there is little positive impact on the long-term growth of these economies. In fact, 95% of growth accelerations and decelerations in small PICs are either due to aid-financed infrastructure projects or to natural disasters (Duncan 2016).

The second consequence is that social returns to infrastructure and climate adaptation investments often significantly exceed narrowly measured economic returns. However, as most social returns cannot be translated into monetary resources that can be used to service debt, this necessarily reduces the scope for debt financing of infrastructure in PICs (World Bank 2016b). The results of debt sustainability analysis for PICs discussed in the next section reflect these points.

Do Pacific island countries have space to borrow for infrastructure development and climate adaptation?

The International Monetary Fund (IMF)/World Bank debt sustainability analyses (DSA) indicate an elevated risk of debt distress for all assessed PICs, and thus very limited scope for external borrowing. Six of the nine PICs for which regular DSAs are carried out are assessed as being at high risk of debt distress. The remaining three—PNG, Solomon Islands, and Vanuatu—are at moderate risk of debt distress. In most of these countries, an elevated risk of debt distress is structural, reflecting limited economic growth prospects, being undiversified economies with high vulnerability to natural disasters rather than the result of excessive indebtedness or unsustainable fiscal policies. As such, a structural risk of debt distress indicates that these economies have very limited capacity to service debt.

Table 8: Borrowing Constraints of Selected Pacific Island Countries

Country	Overall Borrowing Constraints				Constraints on Non-concessional Borrowing	
	Risk of Debt Distress	Debt Ceilings	Fiscal Rules	Access to IBRD/Capital Market Financing	IDA's NCBP	Domestic Concessional Requirements
Fiji				Ba3 (Stable) (Moody's)		
Palau						
Nauru						
Papua New Guinea				B2 (Negative) (Moody's) B (Stable) (S&P)		
FSM						
Marshall Islands						
Kiribati						
Tonga						
Samoa						
Tuvalu						
Vanuatu						
Solomon Islands						

FSM = Federated States of Micronesia, IBRD = International Bank for Reconstruction and Development, IDA = International Development Association, NCBP = nonconcessional borrowing policy, PNG = Papua New Guinea.

Notes: Risk of debt distress: red = high risk, yellow = moderate, green = low, white = not available.

Debt ceiling: red = current debt levels are above 90% of ceiling, yellow = debt levels are above 50% of ceiling, green = debt levels are below 50% of the ceiling, white = no ceiling or information not available.

Fiscal rules: yellow = fiscal rule in place, white = no fiscal rule or information not available.

Access to IBRD/capital market financing: red = no IBRD financing and access to international capital markets

IDA's NCBP: red = NCBP applies, white = NCBP does not apply.

Concessional requirements: red = borrowing subject to domestic concessional requirements, white = borrowing not subject to domestic concessional requirements or information not available.

Source: World Bank.

The economic strategies and plans of PICs often contain explicit targets with respect to debt indicators. Many countries have adopted medium-term debt management strategies and carry out their own debt sustainability analyses to determine and monitor debt-related targets and policies. Such debt targets differ with respect to the coverage of the target: (i) some countries target total government debt, (ii) some countries target only external debt, and (iii) some countries exclude specific types of liabilities from the debt indicator. For example, PNG and Solomon Islands have legislated a debt ceiling of 35% of GDP. Fiji has set itself a debt ceiling of 50% of GDP in the medium term. Once actual debt levels exceed or are close to these ceilings, they become effective constraints on new borrowing. Solomon Islands has adopted a further target of keeping the ratio of the annual debt servicing requirement to domestically sourced revenue below 10%, and annual borrowing limits are set with the objective of ensuring that this ratio remains below the threshold over a 15-year forecast horizon (Government of Solomon Islands 2016).

For most countries, the scope for external borrowing is also constrained by no or very limited access to capital markets. Only Fiji and PNG have access to International Bank for Reconstruction and Development (IBRD) lending, and these countries have also been able to raise money in the international bond markets, although at relatively high cost. None of the other PICs have access to international capital markets or to IBRD lending. Their external financing sources are mostly limited to bilateral and multilateral grants, credits, and loans.

Several countries in the Pacific, including Samoa, Solomon Islands, Tonga, and Vanuatu, have adopted medium-term debt strategies that require external borrowing to be limited to concessional loans. This recognizes these countries' very limited capacity to service nonconcessional debt without quickly crowding out essential government spending. Following the definitions used by the World Bank and the IMF, this implies that only loans and credits that have at least a grant element of 35% are considered as sources of financing.

To ensure that multilateral financing does not add to the risk of debt distress, the World Bank has adopted a grant allocation mechanism. Under this mechanism, countries at high risk of debt distress receive 100% of their annual International Development Association (IDA) allocation in the form of grants. Countries at moderate risk of debt distress receive 50% of their annual IDA allocation as grants and 50% as concessional IDA credits. Those countries that are at a low risk of debt distress receive their entire IDA allocation as concessional IDA credits.

At present, Kiribati, the Marshall Islands, the Federated States of Micronesia, Samoa, Tonga, and Tuvalu receive their entire IDA financing as grants. Solomon Islands and Vanuatu (being at moderate risk of debt distress) receive 50% of IDA financing as grants and 50% as concessional IDA credits. PNG receives its entire IDA allocation in the form of concessional IDA credits due to the fact that it also has access to IBRD financing. Fiji, Nauru, and Palau do currently not have access to IDA financing.

The International Development Association's nonconcessional borrowing policy (NCBP) seeks to support countries in the pursuit of sustainable debt policies, while helping to safeguard IDA's fiduciary responsibility toward its contributors. This responsibility requires that IDA ensures the effective and equitable use of its scarce grant and concessional resources for developmental purposes in a manner that is consistent with long-term debt sustainability. In the context of the NCBP, this means factoring in the nonconcessional borrowing undertaken by countries subject to the NCBP into decisions regarding the terms and allocation volumes provided by IDA. It applies to countries that receive IDA grants or that have benefited from heavily indebted poor country debt relief.

Table 8 summarizes the results of the latest DSAs for PICs and policy and market constraints on borrowing. The scope for external borrowing is very limited for virtually all countries, either because: (i) they are at an elevated risk of debt distress, (ii) their debt levels are already close to national ceilings, or (iii) they have limited creditworthiness in international capital markets. Most countries

also have concessionality requirements for their external borrowing, either because they receive IDA grants and are thus subject to IDA's nonconcessional borrowing policy, or they have adopted medium-term debt strategies that define such concessionality requirements (World Bank 2017b).

Conclusions and recommendations

The large infrastructure gaps in PICs imply massive financing needs. Climate adaptation requirements further add to these financing needs. However, it is important to consider that infrastructure financing needs of PICs not in isolation, but to take a comprehensive view of their financing needs, including those for public service delivery and human capital development. Currently available public financing is clearly insufficient to address these needs, and the scope for generating resources from ways such as increased public sector efficiency and domestic resource mobilization, external financing in the form of aid and borrowing, and increased private sector participation can be important for some countries and in some sectors. However, overall resources are likely to fall significantly short of estimated needs.

The first implication of this diagnosis is the need for a clear prioritization of infrastructure investments and public sector spending more broadly in PICs. Thus, the strengthening of public expenditure and investment management has a central role to play in dealing with the region's infrastructure and climate adaptation challenges.

The scope for sustainable debt financing of infrastructure and climate adaptation is extremely limited for most countries as a result of structural factors that limit countries' capacity to take on and service debt. This is reflected in the results of DSAs, which show an elevated risk of debt distress for all PICs. Although there is some scope for some limited debt financing for some of the larger economies in the region, overall, limiting external financing to grant and highly concessional borrowing is essential for prudent macroeconomic and debt management of smaller PICs.

Lead author: Robert Utz, World Bank^a

Endnotes:

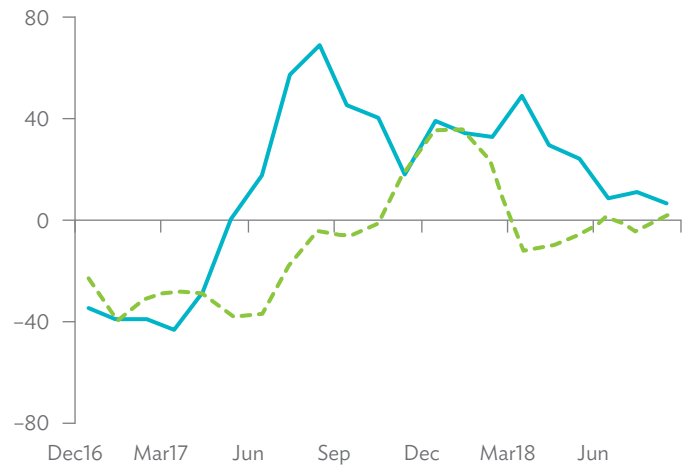
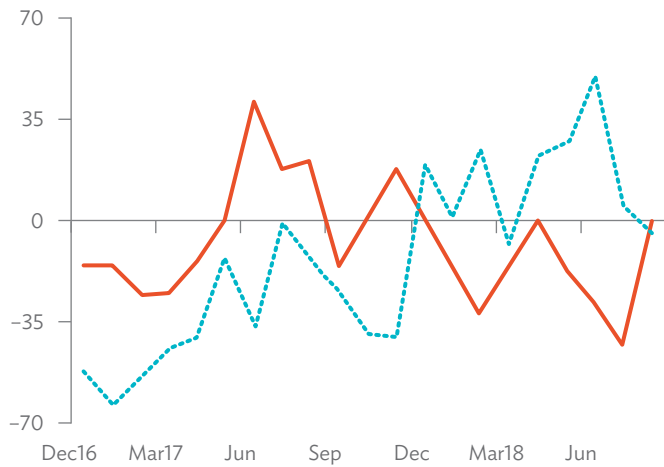
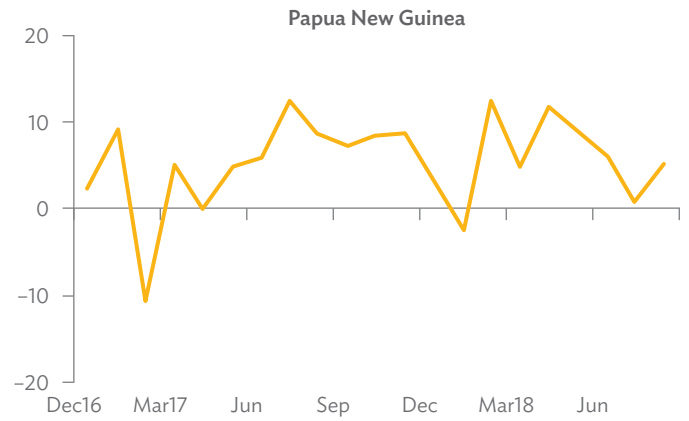
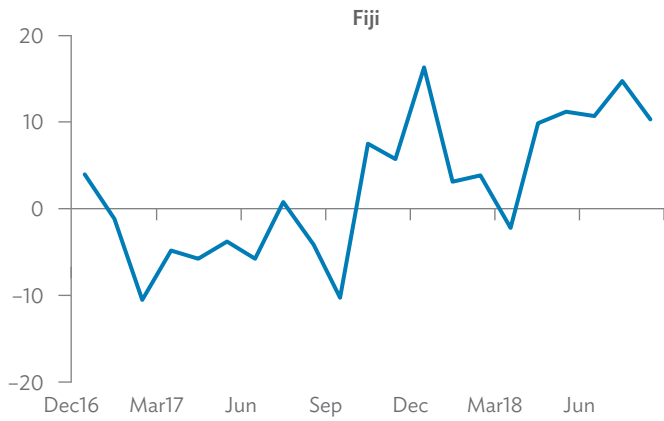
- 1 The report estimates the additional financing requirements, that are consistent with reaching a level of infrastructure and human development that is equal to the average for developing small states. For Pacific island countries that have exceeded already the small states average (Fiji, Palau, Samoa, and Tonga), the target is to reach the level of Tonga, which is assessed as the most advanced country in this Pacific sample in terms of infrastructure and human development.
- 2 As highlighted by Bertram (2011), Pacific islanders overcome these constraints by accessing economic opportunities in Pacific Rim countries: Australia and New Zealand for the South Pacific, and the United States for the North Pacific.

References:

- Asian Development Bank (ADB). 2017. *Meeting Asia's Infrastructure Needs*. Manila.
- Berg, A., E. F. Buffie, C. Pattillo, R. Portillo, A. Presbitero, and L. Zanna. 2015. Some Misconceptions about Public Investment Efficiency and Growth. *IMF Working Papers 15/272*. Washington, DC: International Monetary Fund (IMF).
- Bertram, G. 2011. Pacific Islands Development in Long-run Perspective. Slides for Institute of Policy Studies Conference Resilience in the Pacific: Addressing the Critical Issues, February 2011.
- Duncan, R. 2016. Sources of Growth Spurts in Pacific Island Economies. *Asia and the Pacific Policy Studies*. Vol 3/2 May 2016, pp. 351–365.
- Government of Solomon Islands. 2016. *Debt Management Strategy*. Honiara.
- Warner, A. 2014. Public Investment as an Engine of Growth. *IMF Working Papers No. 148*. Washington, DC: IMF.
- World Bank. 2016a. Financing Pacific Governments for Pacific Development. Pacific Possible Background Report No. 7. Sydney: World Bank (unpublished).
- . 2016b. Climate and Disaster Resilience. Pacific Possible Background Report No. 6. Sydney: World Bank (unpublished).
- . 2017a. Pacific Possible – Long-term Economic Opportunities and Challenges for Pacific Island Countries. Washington, DC: World Bank.
- . 2017b. *Review of the debt sustainability framework for low income countries: proposed reforms (English)*. Washington, DC. <http://documents.worldbank.org/curated/en/823731506617907804/Review-of-the-debt-sustainability-framework-for-low-income-countries-proposed-reforms>.
- . 2018. *The Human Capital Project*. Washington, DC.

^a The lead author benefited from comments by Kim Edwards, Demet Kaya, Carlos Orton Romero, and Anna Robinson.

Nonfuel Merchandise Exports from Australia
(A\$; y-o-y % change, 3-month m.a.)

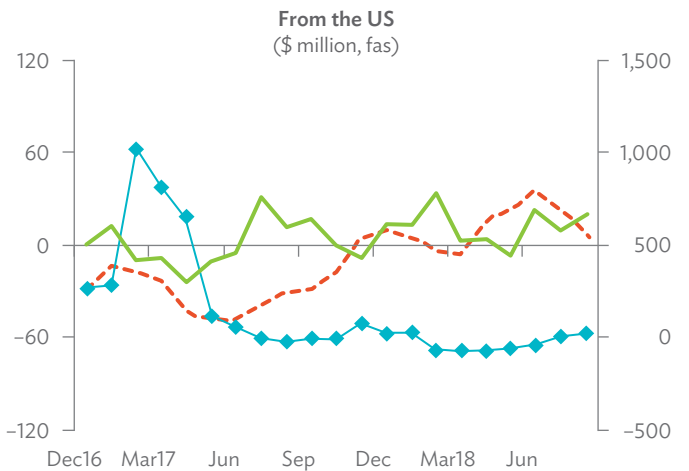
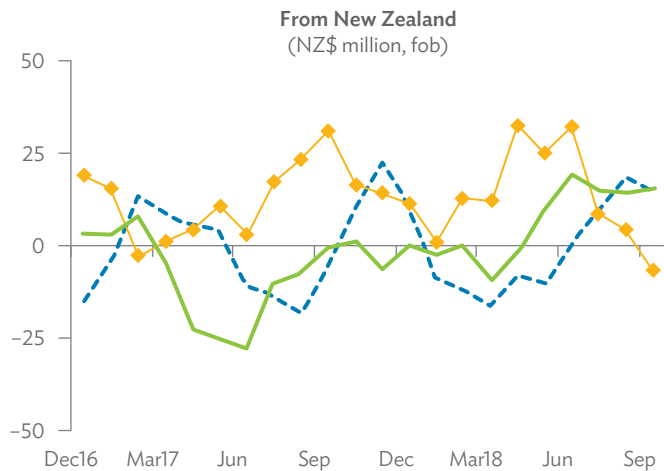


— Kiribati - - - - Nauru

— Solomon Islands - - - - Vanuatu

A\$ = Australian dollars, m.a. = moving average, y-o-y = year-on-year.
Source: Australian Bureau of Statistics.

Nonfuel Merchandise Exports from New Zealand and the United States
(y-o-y % change, 3-month m.a.)

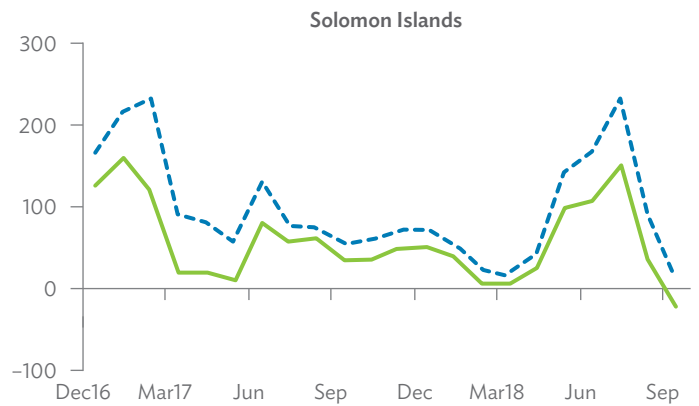
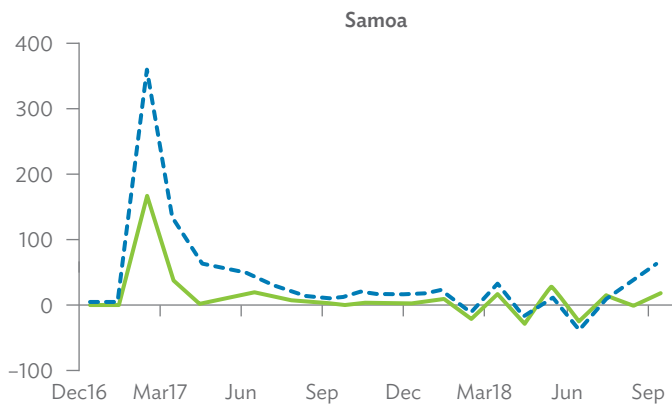
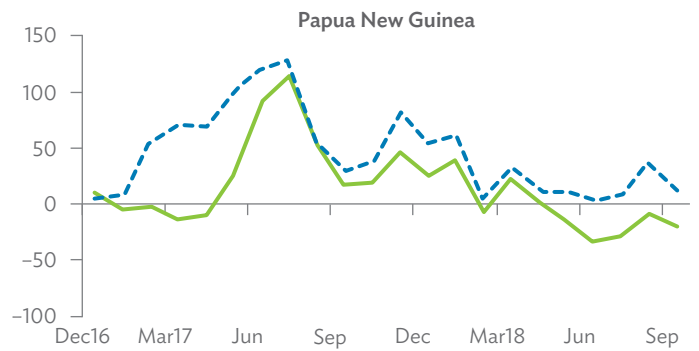
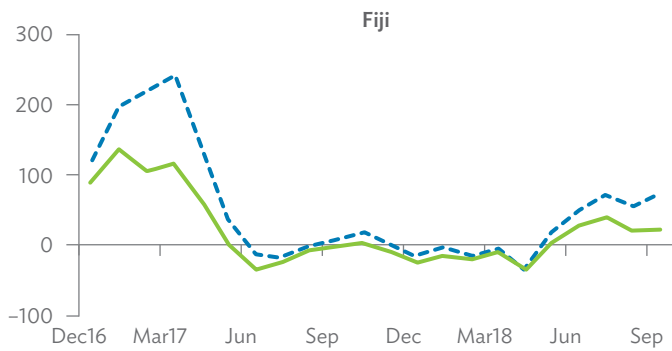


◆ Cook Islands - - - - Samoa — Tonga

— FSM - - - - Palau ◆ RMI

fas = free alongside, fob = free on board, FSM = Federated States of Micronesia, m.a. = moving average, NZ\$ = New Zealand dollar, RMI = Republic of the Marshall Islands, US = United States, y-o-y = year-on-year.
Sources: Statistics New Zealand and US Census Bureau.

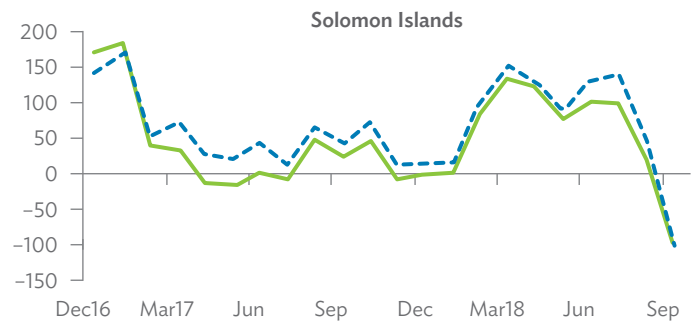
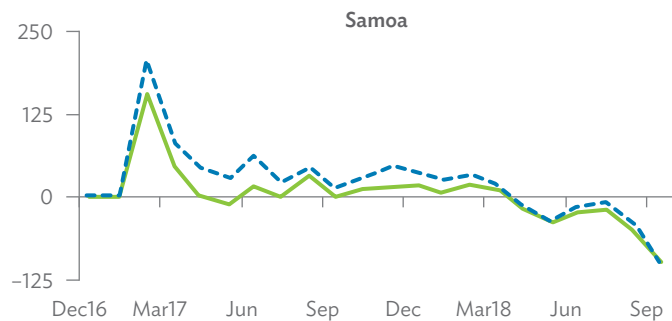
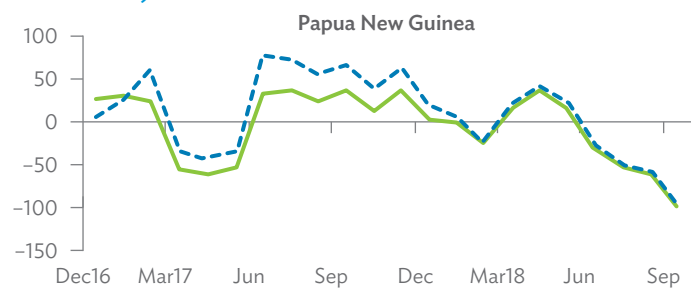
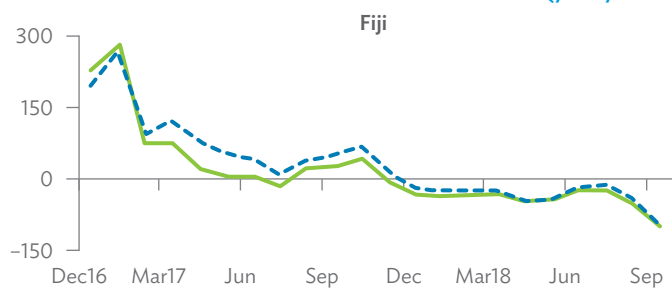
Diesel Exports from Singapore
(y-o-y % change, 3-month m.a.)



— Volumes - - - Values

m.a. = moving average, y-o-y = year-on-year.
Source: International Enterprise Singapore.

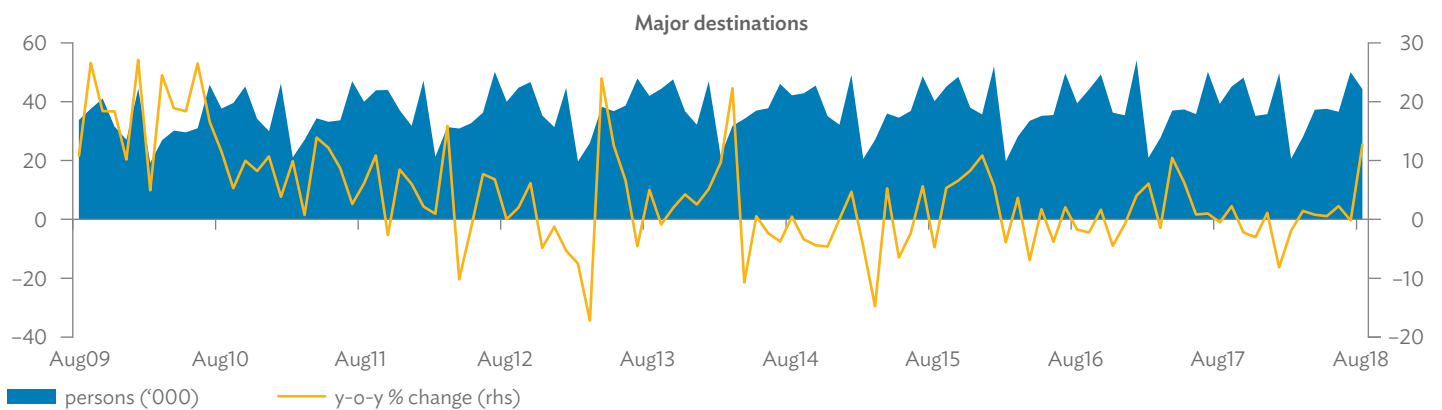
Gasoline Exports from Singapore
(y-o-y % change, 3-month m.a.)



— Volumes - - - Values

m.a. = moving average, y-o-y = year-on-year.
Source: International Enterprise Singapore.

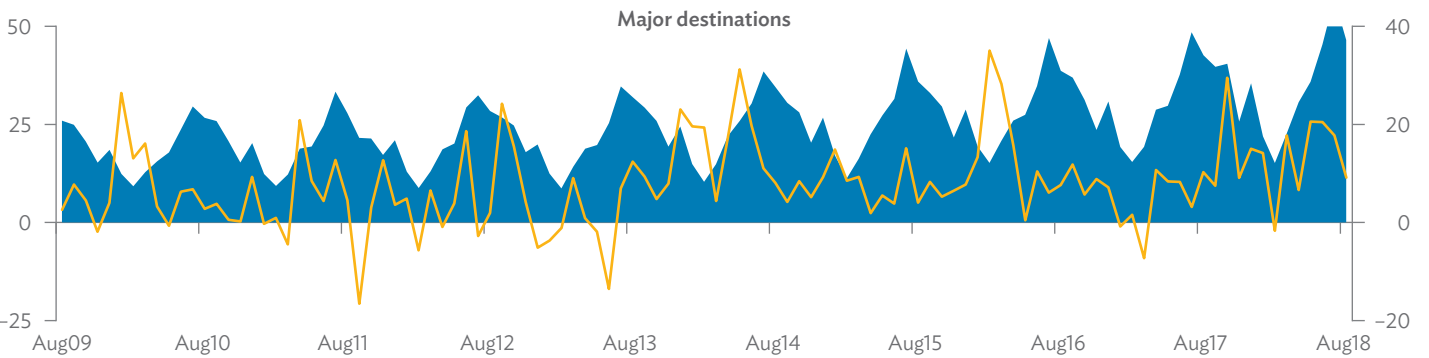
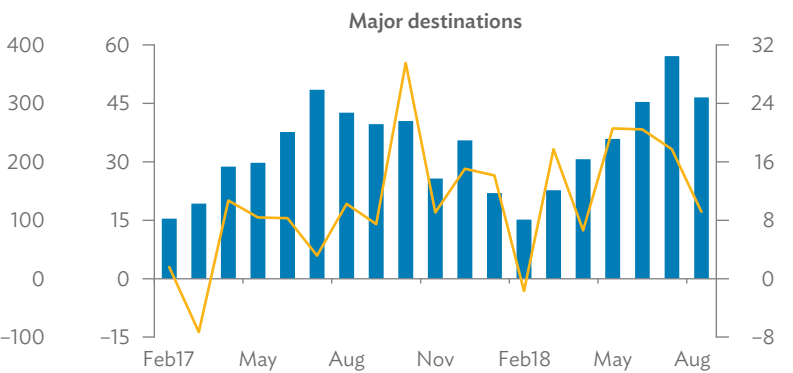
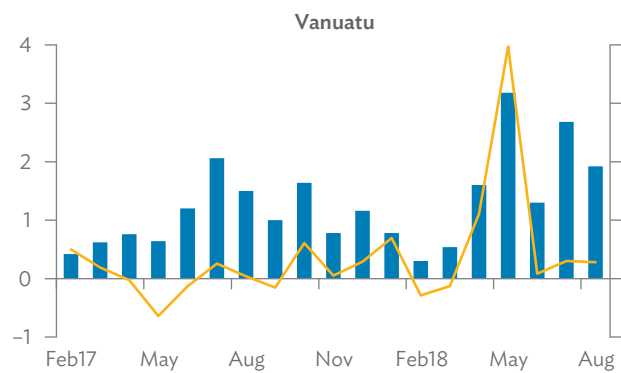
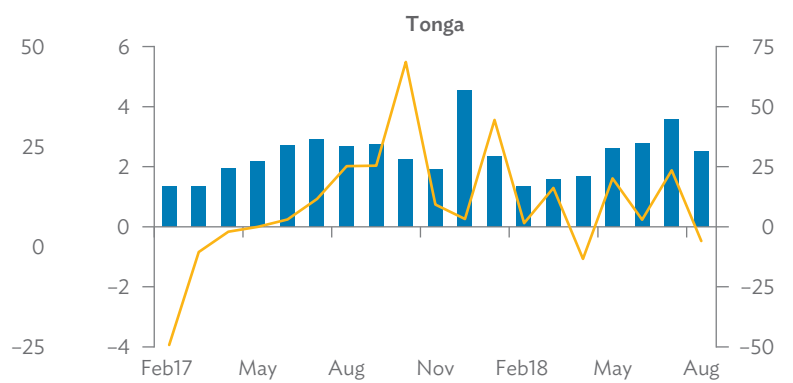
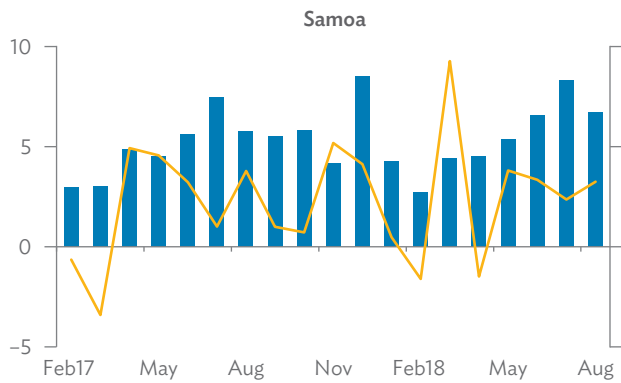
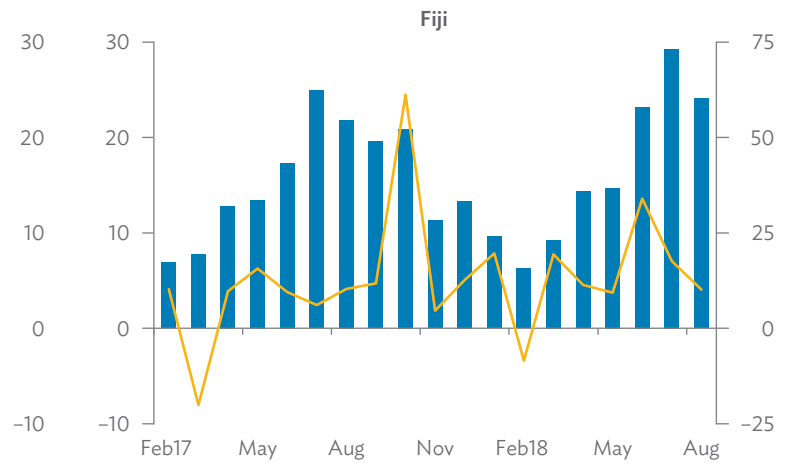
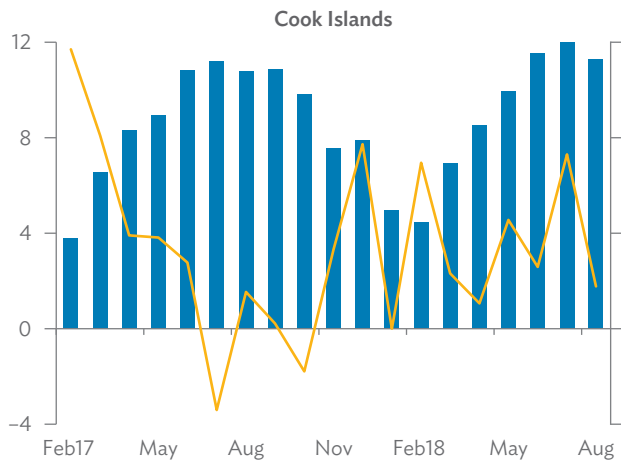
Departures from Australia to the Pacific (monthly)



■ persons ('000) — y-o-y % change (rhs)

rhs = right-hand scale, y-o-y = year-on-year.
Source: Australian Bureau of Statistics.

Departures from New Zealand to the Pacific (monthly)



■ persons ('000) — y-o-y % change (rhs)

rhs = right-hand scale, y-o-y = year-on-year.
Source: Statistics New Zealand.

Latest Pacific Economic Updates

	GDP Growth (% p.a.)			Inflation (% annual avg.)			Fiscal Balance (% of GDP)		
	2017e	2018p	2019p	2017e	2018p	2019p	2017e	2018p	2019p
Cook Islands	6.8	7.0	6.0	-0.1	0.4	1.0	7.0	6.6	-1.7
Fiji	3.0	3.0	3.0	3.3	4.0	3.0	-2.3	-4.5	-3.5
Kiribati	2.5	2.3	2.3	2.2	3.0	2.7	3.6	3.3	3.8
Marshall Islands	3.6	2.5	2.5	0.0	1.0	1.0	4.5	-2.5	-3.0
FSM	2.0	2.0	2.0	0.5	1.0	1.0	7.0	10.0	10.0
Nauru	4.0	-3.0	0.5	5.0	2.0	2.0	19.0	21.7	7.2
Palau	-3.7	1.0	1.0	0.9	1.5	1.5	4.5	5.0	5.0
PNG	3.0	0.5	3.0	5.4	5.0	4.5	-2.4	-2.3	-2.1
Samoa	2.5	0.9	2.0	1.4	3.7	4.0	-1.1	0.1	-3.5
Solomon Islands	3.2	3.2	3.0	0.1	2.5	3.0	-3.8	-1.9	-1.0
Timor-Leste ^a	-5.3	0.6	4.5	0.6	2.0	3.0	-18.5	-24.1	-33.2
Tonga	2.8	0.4	1.9	7.4	5.5	3.0	3.9	1.6	-0.1
Tuvalu	3.2	3.8	3.5	4.4	4.0	3.4	16.2	-0.9	-6.9
Vanuatu	3.5	3.2	3.0	3.1	3.0	2.5	3.0	-3.3	-1.0

FSM = Federated States of Micronesia, GDP = gross domestic product, p = projection, PNG = Papua New Guinea.

^a Timor-Leste GDP is exclusive of the offshore petroleum industry.

Sources: ADB. 2018. *Asian Development Outlook 2018 Update*. Manila; and statistical releases of the region's central banks, finance ministries and treasuries, and statistical bureaus.

Key data sources:

Data used in the *Pacific Economic Monitor* are in the ADB PacMonitor database, which is available in spreadsheet form at www.adb.org/pacmonitor.

How to reach us: pacmonitor@adb.org

**Asian Development Bank
Pacific Department**

Apia
Level 7 Central Bank of Samoa Building
Apia, Samoa
Tel: +685 24492

Dili
ADB Building
Rua Alferes Duarte Arbiro, Farol
Dili, Timor-Leste
Tel: +670 332 4801

Honiara
Mud Alley
Honiara, Solomon Islands
Tel: +677 21444

Koror
P.O. Box 6011, Koror, PW 96940, Palau
Fax: +680 775-1990

Majuro
P.O. Box 3279, Mioco Beach Front
Amata Kabua Boulevard
Majuro, MH 96960, Marshall Islands
Tel: +692 625-2525

Manila
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel: +63 2 632 4444

Nuku'alofa
Fatafehi Street
Tonga Development Bank Building
Nuku'alofa, Tonga
Tel: +676 28290

Palikir
P.O. Box PS-158, Palikir, Pohnpei 96941
Federated States of Micronesia
Tel: +691 320 2639

Port Moresby
Level 13 Deloitte Tower
Port Moresby, Papua New Guinea
Tel: +675 321 0400/0408

Port Vila
Level 5 Reserve Bank of Vanuatu Building
Port Vila, Vanuatu
Tel: +678 23610

Rarotonga
Ministry of Finance and Economic Management
P.O. Box 120, Rarotonga, Cook Islands
Tel: + 682 29521

Suva
5th Floor, Ra Marama Building
91 Gordon Street, Suva, Fiji
Tel: +679 331 8101

Sydney
Level 20, 45 Clarence Street
Sydney, NSW Australia 2000
Tel: +612 8270 9444

Tarawa
Kiribati Adaptation Project-
Phase III Office
P.O. Box 68, Bairiki
Tarawa, Kiribati
Tel: +686 22040/22041

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel +63 2 632 4444
Fax +63 2 636 2444
pacmonitor@adb.org
www.adb.org/pacmonitor