Pacific Economic Monitor

December 2016 www.adb.org/pacmonitor

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

Contents

Highlights

- **Diverging tourism trends; higher global commodity prices.** Despite growing global tourism, some Pacific destinations have seen declining visitor arrivals from major markets. Although international crude oil prices are projected to rise by 27% in 2017, much smaller increases are expected for food prices. Price prospects for key Pacific exports—liquefied natural gas, phosphate, and agricultural commodities—are mixed.
- **Shoring up the fiscal front and raising productivity.** Declining resource-related revenues remain major concerns for Papua New Guinea and Timor-Leste, while the major fiscal risks facing Nauru have been thrown in the spotlight by emerging developments regarding its Regional Processing Centre. Rebuilding fiscal buffers against shocks are imperative for these economies, as well as for those at risk of disasters. Other country-specific policy challenges discussed in this issue include strengthening public investments and state-owned enterprises, and information and communication technology.
- **Carving a niche for Pacific products.** Developing high-value niche products for export opens up promising economic opportunities particularly for rural households and small and medium-sized enterprises. Trade finance would help improve exporters' access to financing, while collective action could help spur product development and cultivate support services responsive to the needs of the sector.

This is the 21st edition of the *Pacific Economic Monitor*. With this coming of age, some changes have been made to better align the content with regional interests. We trust you will welcome the stronger policy focus of this and subsequent editions.

When the first *Monitor* was released in May 2009, the series was in response to turbulence in the global economy and the recognized need for more frequent monitoring of the Pacific economies. This allowed for early warning of external shocks and supported greater preparedness. At that time, outside government statistical releases, the Asian Development Bank (ADB) was the only organization providing economic forecasts twice a year for individual Pacific countries. The *Monitor* was well received and has since built a strong readership.

Over these past 8 years, there has been an increased focus on the Pacific, and there are now several regular economic reviews of the region by multilateral organizations. At the same time, governments and other stakeholders have become more engaged in broader policy discussions. This edition of the *Monitor* signals a shift away from country-focused economic trend reporting (although data on major economic indicators can still be found on page 32 and online through the PacMonitor Database). Instead, country write-ups now discuss current and critical policy issues (pages 5-16), with countries grouped together where common issues are being faced. Issues covered include budget responses to lower commodity prices, investment in information and communication technology, disaster resilience and preparedness, and improving the quality of public investment.

The themed policy briefs remain (pages 17–27), with this edition focusing on niche product development. The Pacific is increasingly becoming known worldwide for its bottled water, coffee, chocolate, chili, vanilla, cosmetics, and signature clothing, all of which are finding keen repeat buyers on the global stage. These products, while produced at low volumes, can fetch premium prices by trading on the unique stories of their development, and exotic local ingredients derived from the pristine Pacific environment. Collective efforts to improve product quality and increased access to trade finance are but two of the ways through which Pacific exporters can harness these opportunities.

We wish the *Pacific Economic Monitor* a happy 21st edition and you, the readers, many happy returns.

50 YEARS ADB

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Printed in the Philippines.

ISBN 978-92-9257-667-7 (Print), 978-92-9257-668-4 (e-ISBN)
Publication Stock No. RPS168552-2

Cataloging-In-Publication Data

Asian Development Bank
Pacific Economic Monitor, December 2016.
Mandaluyong City, Philippines:
Asian Development Bank, 2016.

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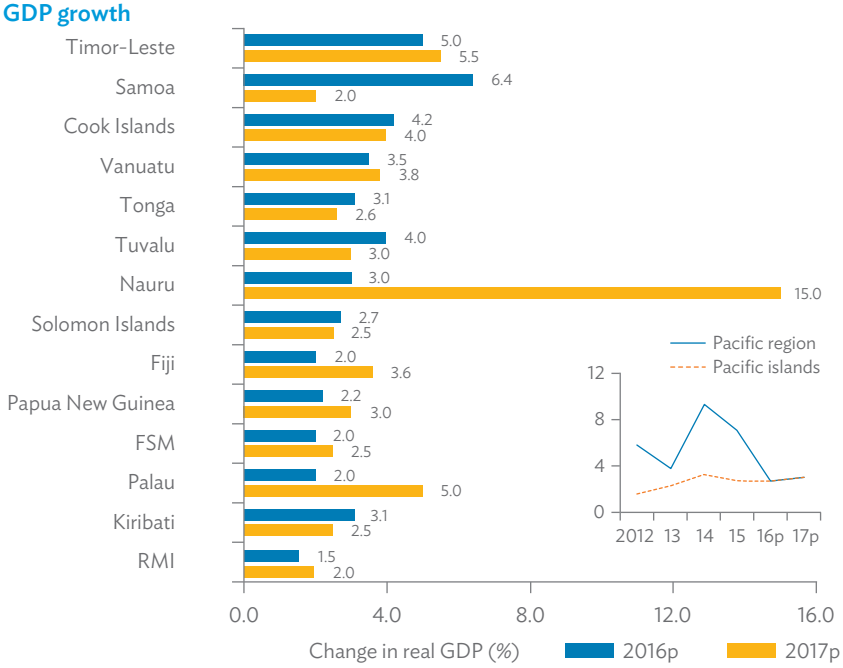
Abbreviations

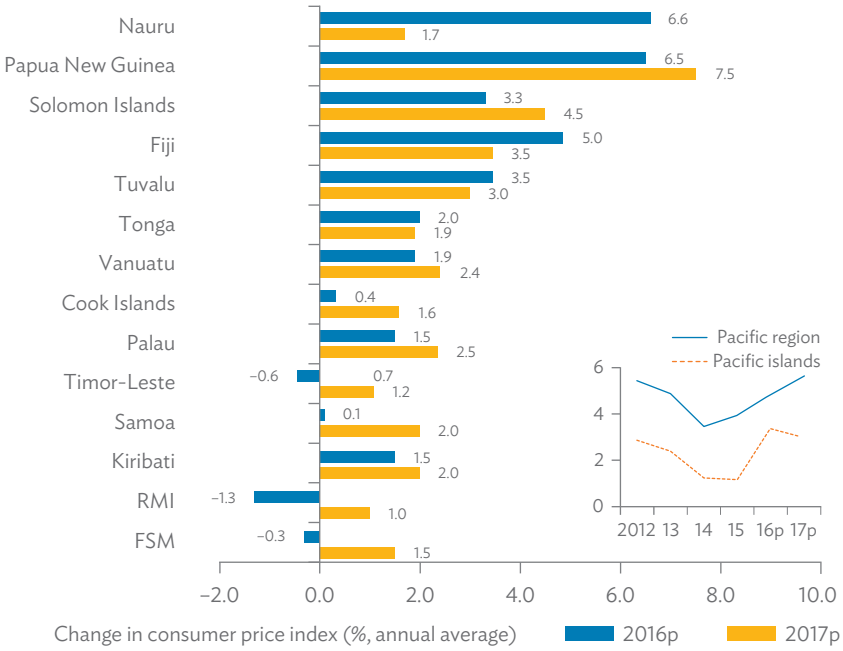
A$	Australian dollar
ADB	Asian Development Bank
F$	Fiji dollar
FSM	Federated States of Micronesia
FY	fiscal year
GDP	gross domestic product
K	PNG kina
lhs	left-hand scale
m.a.	moving average
NZ$	New Zealand dollar
PNG	Papua New Guinea
PRC	People's Republic of China
rhs	right-hand scale
SI$	Solomon Islands dollar
SIPA	Solomon Islands Port Authority
SOE	state-owned enterprise
SPG	South Pacific Games
ST	Samoan tala
T	Tonga pa'anga
US	United States
Vt	Vanuatu vatu
y-o-y	year-on-year

Asian Development Bank projections

GDP growth



Inflation



e = estimate, FSM = Federated States of Micronesia, GDP = gross domestic product, p = projection, RMI = Republic of the Marshall Islands.
Notes: Projections are as of December 2016 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 US dollars following the World Bank Atlas method. Averages for the 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 in the Republic of the Marshall Islands, the Federated States of Micronesia, and Palau; and 31 December elsewhere.

International and regional developments

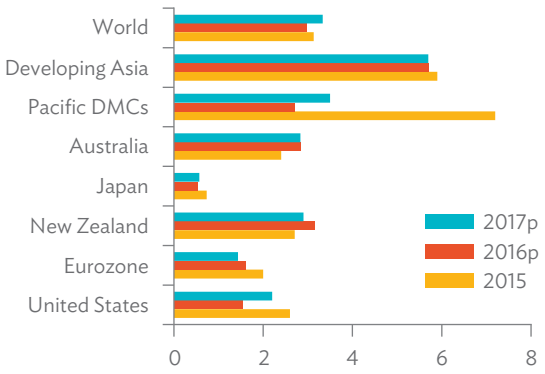
Stable growth outlook for Pacific DMCs' major partners

- Weaker than expected growth in major global economies has driven a drop in the 2016 growth projection to 3.0%, from the earlier 3.6% forecast. This is expected to pick up slightly to 3.3% in 2017, mainly due to the Russian Federation's recovery from a contraction in 2016. Major risks to these forecasts include financial volatility due to higher United States (US) interest rates, weaker growth in the People's Republic of China (PRC), and slower global trade.
- Closer to home, the growth outlook for the main economic partners of ADB's 14 Pacific developing member countries (DMCs) remains stable. The economic performance of these countries affects demand for Pacific exports, tourism and investment inflows, and development assistance to the region.
- Growth in Developing Asia is forecast at 5.7% in both 2016 and 2017. While economic growth in the PRC is expected to slow due to the continuing shift toward domestic consumption, growth is seen to accelerate in India. Further weakening of growth in the PRC poses downside risks to economic prospects in Australia and New Zealand.
- After growth estimated at a disappointing 1.5% in 2016, the US economy is expected to expand by 2.2% in 2017. Strong private consumption is seen to be complemented by a recovery in gross fixed capital formation. The long-anticipated interest rate hike was further delayed due to the relatively weak growth. A hike in US interest rates can trigger increases by other central banks and may lead to financial volatility.
- Japan's economic expansion is seen to remain sluggish as government spending decelerates, tempering growth in consumption and investment. Tepid overall growth is the primary reason for the postponement of the planned hike in the consumption tax from 8% to 10% from 2017 to 2019. In the eurozone, growth is expected to slightly weaken as private consumption and investments slow.
- In Australia, economic expansion is projected at 2.8% in 2017, the same rate as in 2016. Private consumption is expected to be sustained. Although slower growth is expected in government consumption, exports are seen to rise strongly, driven by shipments of iron ore and liquefied natural gas (LNG) to the PRC.
- New Zealand's economic growth is seen to reach 2.9% in 2017 from an estimated 2.8% in 2016. Private consumption and export growth are expected to slow down, while government spending and private investments are seen to expand. Low interest rates are fueling demand in the housing market, which is showing signs of overheating. A major risk is a sharp increase in interest rates if hikes in the US or other economies trigger global financial market volatility.

Diverging tourism trends continue

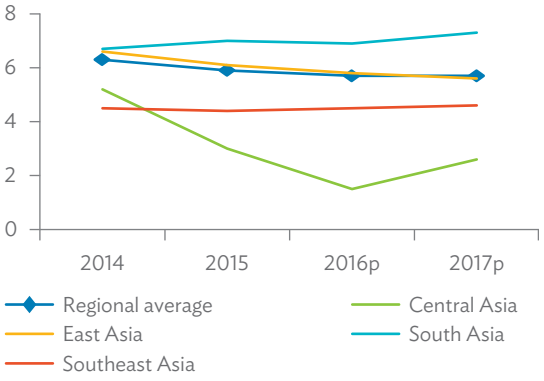
- Global tourism grew by 4% (y-o-y) in January–September 2016; however, the Pacific is not maintaining its share—a cause for concern. Distance (also resulting in indirect flights) and relatively high travel costs remain the enemies of this industry in the Pacific.
- In the first 8 months of 2016, Australian tourism to the South Pacific fell by 0.5% (y-o-y)—equivalent to around 1,400 fewer trips. Individual country impacts were varied: the persistent decline in the number of Australian tourists

GDP Growth
(%, annual)



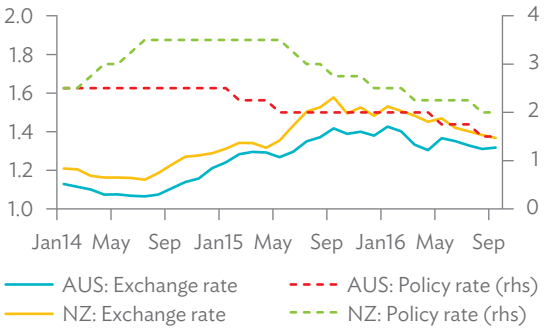
DMC = developing member country, GDP = gross domestic product, p = projection.
Notes: Developing Asia and Pacific DMCs as defined by ADB. Figures for 2015 and 2016 are based on ADB estimates for developing Asia and Pacific DMCs.
Sources: ADB. 2016. *Asian Development Outlook Update 2016.* Manila; CEIC; Economist Intelligence Unit; International Monetary Fund; Organisation for Economic Co-operation and Development.

GDP Growth in Developing Asia
(%, annual)



Source: ADB. 2016. *Asian Development Outlook 2016 Update.* Manila.

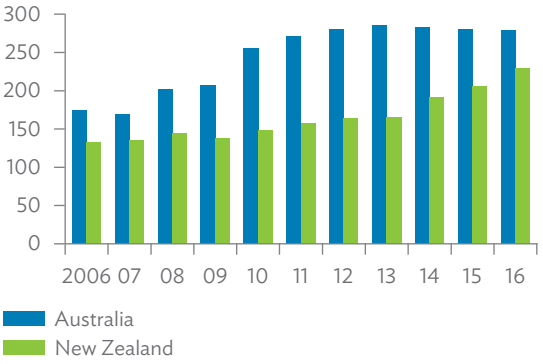
Exchange and Policy Interest Rates
(%, monthly)



AUS = Australia, NZ = New Zealand.
Note: Exchange rate is local currency per US dollar.
Source: CEIC.

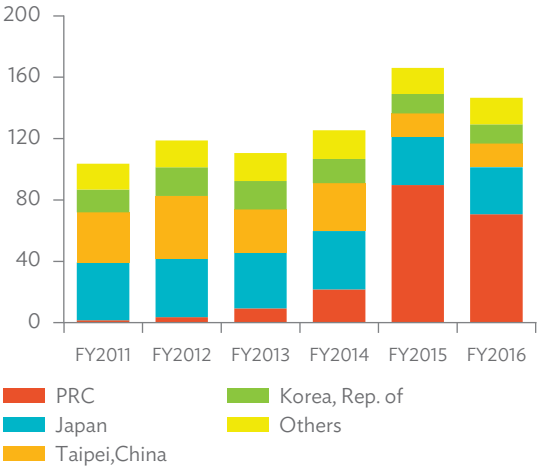
International and regional developments

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



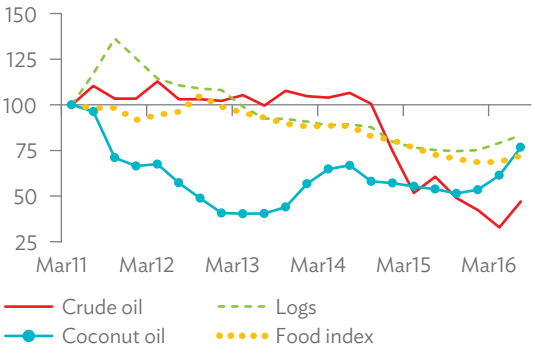
Sources: Australian Bureau of Statistics and Statistics New Zealand.

Tourist Arrivals in Palau ('000, annual)



FY = fiscal year, PRC = People's Republic of China.
Source: Palau Statistics Office.

Commodity Prices (March 2011 = 100, quarterly)



Source: ADB calculations using data from World Bank Commodity Price Data (Pink Sheets).

Lead authors: Prince Cruz, Rommel Rabanal, and Cara Tinio.

visiting Fiji continued, while other South Pacific (the Cook Islands, Samoa, and Tonga) destinations showed solid growth. Vanuatu saw a recovery in Australian tourism after Qantas and Virgin Australia flights resumed in June.

- In the North Pacific, visitor arrivals to Palau have dropped sharply. Visitor arrivals were 13.2% lower in the first 7 months of 2016 (y-o-y), with substantially fewer tourists from major source markets including the PRC; the Republic of Korea; and Taipei,China. Drought—which affected water supply in hotels and popular attractions—and reduced flights from Hong Kong, China due to aircraft maintenance weakened tourism demand.

- The New Zealand market, though small, remains a bright spot. Buoyed by rising household incomes from recent robust economic performance, tourist departures from New Zealand to major South Pacific destinations increased by 11.2% in the first 8 months of 2016 (y-o-y). New Zealand departures to Fiji and the Cook Islands—the two main Pacific destinations for New Zealand travelers—each maintained double-digit growth. Tonga saw a similarly sharp rise, albeit from a much lower base, while Samoa recorded solid growth as well. However, New Zealand tourist numbers in Vanuatu continue to decline. Although other international carriers resumed flights to Port Vila after completion of emergency runway repairs in May, Air New Zealand's regular services remain suspended until a longer-term solution is in place.

- Tourist departures from Japan to Australia and New Zealand—the primary gateways into the South Pacific—increased by 20% (y-o-y) in the first 3 quarters of 2016. US tourism to Oceania likewise posted double-digit growth in the first 7 months of the year. These trends suggest some positive spillovers for South Pacific destinations. In contrast, Japanese tourism to Guam and the Commonwealth of the Northern Mariana Islands continues to decline, consistent with a general weakness in tourism to North Pacific destinations.

Fuel and other commodity prices trending upward

- In the first 3 quarters of 2016, average oil prices were down by 24% from a year ago. This contributed to improved Pacific economic outcomes by holding down import costs (both directly, through reduced fuel import costs, and indirectly, through lower transportation costs). However, the average price of oil is expected to rise to $55.20 per barrel in 2017, up by 27.5% from 2016. Increasing efforts on the part of Pacific governments to shift to use of renewable energy sources should be given further economic impetus.

- International prices of other major commodities of significance to the Pacific, mainly food and LNG, are also expected to increase, but far more slowly than oil. Overall, food prices are seen to increase by 1.5% in 2017, a small moderation from the 1.7% full-year growth forecast for 2016. The prices of fats and oils, in particular, are estimated to rise by 4.8% in 2016—in keeping with the increases observed in the prices of coconut and palm oils in January–September—and 2.0% in 2017. This bodes well for price stability in the Pacific, particularly in economies that are heavily dependent on food imports.

- Price prospects for key Pacific exports are mixed. The price of LNG is expected to grow by 4.4% in 2017, a rebound from a 34.6% decline in 2016. Similar recovery is seen in 2017 for the price of fertilizer, including phosphates, while international prices for logs should continue to rise, albeit more slowly. The international price for sugar is projected to remain stable at $0.40 per kilogram. However, cocoa and coffee prices are forecast to decline by 2.0% and 0.6%, respectively, in 2017.

This section focuses on key economic issues at the country level. Disaster preparedness, fiscal performance, public investment, state-owned enterprise performance, information and communication technology, and agricultural productivity may seem to bear limited relation to each other, however these areas were all highlighted by the leaders of the Pacific Island Forum (PIF) countries as being critically important for stability and security in the region. Most of these policy areas appear in the Framework for Resilient Development in the Pacific, endorsed by the PIF Leaders in Pohnpei, Federated States of Micronesia in September 2016. This, the world's first integrated regional framework for building climate and disaster resilience, sets forth priority actions across all sectors. Beyond climate change and disaster risk management, improving connectivity and productivity remain key to realizing sustainable and inclusive growth.

Disaster preparedness and resilience (the Cook Islands, Fiji, and the North Pacific Economies)

Lead authors: Prince Cruz, Caroline Currie, Malie Lototele, Rommel Rabanal, and Cara Tinio.

The small and low-lying islands and atolls of the Pacific region are among the most disaster-prone in the world. This exposure, in combination with their isolation and limited resources, constrain these economies' capacity to recover quickly in the wake of such disasters. Fiji provides a salient case for the harsh economic and social impact a cyclone can have. Recognizing this risk, Pacific governments are intensifying their focus on disaster risk management to build physical resilience and financial preparedness.

THE COOK ISLANDS

Over the past 2 decades, seven major cyclones have hit the Cook Islands, causing loss of life and extensive damage to public infrastructure and private property (Table 1). Cyclone Sally in 1987 caused estimated damages equivalent to 66% of GDP. Four successive cyclones in a period of 5 weeks in February–March 2005, with wind speeds exceeding 200 kilometers per hour, caused damage of about $10 million; and Cyclone Pat in 2010 devastated the island of Aitutaki, a high-value tourism destination. Based on analysis by the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), the Cook Islands faces an average annual loss of $6.7 million from tropical cyclones alone, with probable maximum losses of $77.7 million, $140.7 million, and $270.7 million from 1-in-50, 1-in-100, and 1-in-250 year events, respectively.

Disasters disrupt transport services, damage tourism facilities, and discourage visitors from traveling. At the time of the 2005 cyclones, visitor arrivals fell by 20.1% in February 2005 compared with the same month in 2004, but these rebounded quickly and rose by 5.4% (y-o-y) by March 2005. In contrast, Cyclone Pat in 2010 caused visitor arrivals to decline, year-on-year, by an average of 3.0% in February–May 2010; it was not until a year later that arrivals recovered, rising by 10.4% (y-o-y) during the same period in 2011.

Given the risk posed by expenditure demand and revenue decline due to natural disasters, the government has prepared policy and planning documents focused on disaster risk management (DRM). The current national development plan (2016–2020) includes a specific goal to strengthen resilience to the impacts of climate change and disasters. A national action plan specifically focused on DRM was prepared, followed by a joint national plan for DRM and climate change adaptation, including implementation arrangements to link national and local planning systems. Implementation of these actions will help lessen the costs imposed by natural disasters.

Table 1: Major Cyclones in the Cook Islands, 1987–2010

Year	Name	Severity[a]	Estimated losses ($ million)	Estimated losses (% of GDP)
1987	Sally	Category 2	24.6	51.6
1997	Martin	Category 3	7.5	7.6
	Meena	Category 4		
2005	Nancy	Category 4	10.0[b]	5.5
	Olaf	Category 5		
	Percy	Category 5		
2010	Pat	Category 2	7.8	3.2

GDP = gross domestic product.
[a] Based on the Saffir–Simpson hurricane wind scale. Cyclones above category 3 are considered major because of their potential for significant loss of life and damage.
[b] Combined estimated losses for all four cyclones in 2005.
Sources: Asian Development Bank. 2006. *Draft Final Report: Strengthening Disaster Management and Mitigation (Component 2: Preventive Infrastructure Master Plan)—Volume 4: Climate Change Considerations.* Consultant's report. Manila (TA 4605-COO); and World Bank. 2015. *The Cook Islands: Disaster Risk Financing and Insurance.* Washington, DC.

However, the potential cost impacts of natural disasters cannot be managed to zero, hence planning for such expenditures is critical to avoid the need to reallocate budget resources post-disaster or to be heavily reliant on humanitarian assistance. The government has proactively put in place layered financing to respond to postdisaster needs:

- Savings have been set aside: a disaster emergency trust fund was created in 2011 and its balance currently stands at NZ$1.5 million. The government has committed to continue building this in the coming years.
- The Cook Islands has also taken out insurance coverage under PCRAFI for a disaster with a 1-in-10-year probability of occurrence, fully costed with indicative budgetary allocations to cover associated annual premiums in the coming years.
- ADB is providing contingent credit of $10 million for postdisaster financing. In the event of a disaster, the government can request that ADB release some or all of these funds to meet financing requirements.

FIJI

The Fiji government's disaster recovery framework estimates that it will cost $435 million over 2 years to repair the damage to homes, schools, public buildings, other critical infrastructure, and livelihoods caused by Severe Tropical Cyclone Winston (a category 5 cyclone) that struck Fiji in February 2016. This significant cost comes at a time when the government had been anticipating reducing expenditure by approximately 1.5% of GDP between 2015 and 2018, after significant expansions between 2011 and 2014 to provide free primary and secondary education and improve road infrastructure and water supply.

Fiji's economy had grown at an average annual rate of 4.7% between 2013 and 2015. However, with growth showing signs of moderating, VAT was cut in the 2016 national budget from 15% to just 9% and all exemptions (e.g, on rice, cooking oil, fish, flour, tea, powdered milk, kerosene, and prescription drugs) eliminated. This was intended to stimulate growth in a revenue-neutral manner, in line with the government's broad medium-term fiscal framework.

In the immediate aftermath of the cyclone, the budget position was supported by government redirecting funds from existing projects and in-cash and in-kind aid from the international aid community as well as private businesses. Key cyclone response expenditures in FY2016 included $10 million in postdisaster social protection payments, and a $42 million Help for Homes initiative to assist with the reconstruction of more than 30,000 private homes.

The government's FY2017 budget (the first to utilize the new fiscal year, which ends 31 July 2017) projects a net fiscal deficit of 4.7% of GDP compared with 1.6% in FY2016. Expenditure directly attributable to cyclone recovery efforts is equivalent to 2.1% of GDP. ADB and the World Bank each provided $50 million to support the government's rehabilitation and reconstruction needs over the 2-year period. With the additional borrowing, public debt, which was 47.9% of GDP in FY2016, is projected to rise to 50.4% of GDP in FY2017.

The agriculture sector, which was already weakened by a prolonged drought during 2015 and 2016, was especially hard-hit. Crops were almost all wiped out in the north of the island—including *yaqona* (kava), a key export crop. The sugar industry, historically the backbone of the economy, was particularly badly affected, with cane and sugar production lower by 35.3% and 40.2% respectively in the first 3 months of the 2016 cane crushing season compared with the 2015 season. This is a significant blow to the industry, which also faces the challenges of diversifying markets and improving productivity as it prepares for the loss of Fiji's preferential access to the EU market on 30 September 2017.

Fortuitously, the cyclone occurred in the tourism low season and did not directly impact Fiji's major tourism infrastructure. Tourism arrivals grew by 4.7% in the year to September. Although there were fewer visitor arrivals from Australia, Fiji's major source market, this was offset by greater arrivals from the PRC and New Zealand. Other contributors to growth were construction, which expanded by 10.3% cumulative to June, and manufacturing, which increased by 10.0% in the quarter to September—largely reflecting the strong performance of textile, clothing and footwear, and food and beverage (including mineral water) manufacturers. Looking forward, there is a risk that reconstruction demand could stretch construction sector capacity going into 2017.

Growth of 2.0% is estimated for 2016 and 3.6% forecast for 2017. Policy steps to facilitate much-needed private consumption post-cyclone contributed to this commendable outcome. Consumption was immediately supported by increased social welfare payments, the release of the equivalent of 3% of GDP in national pension fund payouts, and higher personal remittances. Private borrowing was up 11.1% in the year to September, supported by low interest rates.

Imports grew by 13% cumulative to September 2016 due to the need to import food, machinery, and building materials following the cyclone. The value of Fiji's exports rose by 5.1% over the same period. Despite the increased import demand, strong tourism revenues have contributed to foreign exchange reserves remaining adequate to cover 5.5 months of imports at the end of October.

Going into 2017, key issues for economic policy makers should be to ensure reconstruction proceeds smoothly, implement a well-managed fiscal consolidation program as recovery spending winds down, look at the reliance on consumption as a driver of growth, and seek to further undo constraints to private investment.

NORTH PACIFIC ECONOMIES

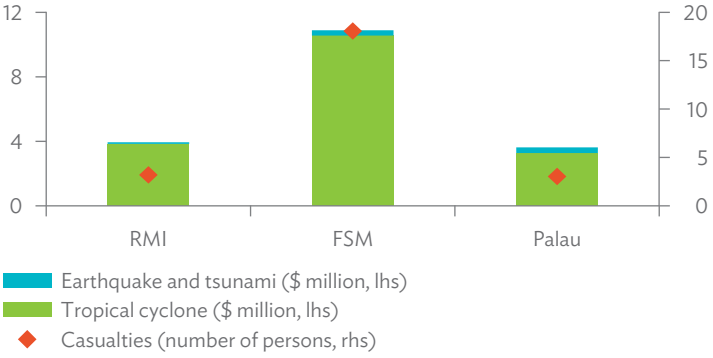
The three North Pacific economies (NPEs)—the Federated States of Micronesia (FSM), the Republic of the Marshall Islands (RMI), and Palau—are also vulnerable to the impacts of natural disasters (Figure 1). In March 2015, a series of typhoons caused damage in all four states of the FSM. With only about 22% of the population living in urban areas—mainly in the four state capitals—provision of immediate assistance after such a major disaster is extremely difficult and costly.

Large concentrations of people and businesses pose their own challenges when disasters hit key areas. In Palau, around 70% of the more than 20,000 population reside in Koror, the center of the tourism industry, which is the main engine of economic growth. The elevation of the RMI averages only 2 meters (m) above sea level, and about half of the 55,000 population lives in the capital of Majuro. In 2008, three major storms hit the country in the space of 2 weeks, causing storm surges that flooded most of the Majuro atoll and forced 10% of the population to evacuate. More than 300 homes were damaged.

All three NPEs experienced El Niño-related drought in 2016, which depleted freshwater resources and led to lost agricultural output. These effects were especially harsh in the RMI's northern atolls, which lack sufficient capacity to harvest and store rainwater against dry periods. In Palau, tourist arrivals fell by 11.7% in FY2016 (ended 30 September for all NPEs), partly attributed to reports of water rationing in hotels and the depletion of the stingless jellyfish in Palau's famous Jellyfish Lake. Warmer temperatures affected the lake's chemical balance, highlighting the sensitivity of one of Palau's main attractions to changes in climatic conditions.

In the medium to long term, the NPEs are seen to experience higher average temperatures due to global warming. Typhoons would become less frequent but more intense, and both drought

Figure 1: Average Annual Loss and Casualties from Disasters



FSM = Federated States of Micronesia, lhs = left-hand scale, rhs = right-hand scale, RMI = Republic of the Marshall Islands.
Note: Average annual loss includes both direct losses and emergency losses.
Sources: ADB estimates using data from the Pacific Catastrophe Risk Assessment and Financing Initiative.

occurrence and average rainfall are also expected to rise. In addition, higher ocean acidification due to more carbon dioxide in the atmosphere would impact the growth of reef ecosystems and fish stocks. These changes would significantly constrain the agricultural and fishery sectors that dominate private sector activity in the RMI and FSM, as well as tourism activity in Palau. Further, Marshallese have already been displaced due to rising sea levels and erosion of habitable land associated with climate change.

Amid an intensifying risk of climate-related disasters, these economies' resilience can be enhanced by (i) making strategic infrastructure investments to help minimize damage and losses, and (ii) building adequate fiscal buffers to support economic recovery.

In 2014, a 7-kilometer stretch of road in the FSM state of Kosrae was climate-proofed under the Pacific Adaptation to Climate Change Project. By raising some sections by up to 1.5 m, improving drainage and culverts, and using more resilient building materials, the project has made the road accessible even under extreme rainfall of up to 254 millimeters per hour. Further, climate-proofing minimizes expected damage from periodic flooding due to heavy rain or high tides, thereby reducing annual maintenance costs and extending the road investment's usable life. Similar climate-proofing interventions are needed to safeguard other vital infrastructure assets.

In 2015, Palau published its Climate Change Policy, which includes a five-year plan for climate change adaptation, DRM, and low-emissions development. The $500 million total cost of attaining the policy objectives would mainly be for tourism, critical infrastructure, and society and culture. The plan includes climate-proofing and upgrading key infrastructure and utilities, including the relocation of the National Hospital. Although these measures could raise upfront capital costs, risks of major infrastructure damage and needs for major reconstruction or total replacement would conversely be reduced. Avoided costs and resulting longer life spans for infrastructure assets underpin net positive returns on climate-proofing investments. For tourism, financial support would be provided to improve the climate and disaster resilience, as well as energy efficiency, of existing facilities. These interventions would help reduce the risk of damage and the cost of subsequent repairs.

The RMI has likewise made climate-proofing investments, particularly in schools and its airport, and made some progress in addressing water and sanitation issues and raising disaster awareness. It has also prepared in 2011 a joint national action plan covering strategies for climate change adaptation and DRM as well as emergency response.

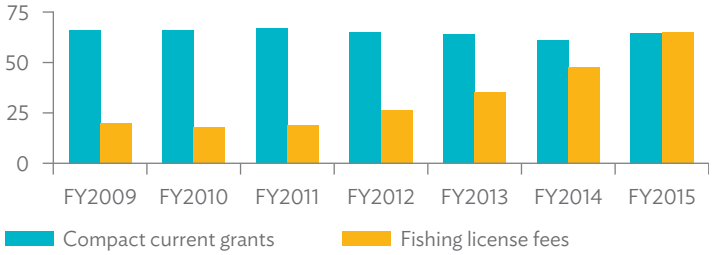
There is also considerable scope to expand the use of renewable energy for electricity generation (e.g., solar in all four FSM states, hydro in Pohnpei, and wind in Yap). This will not only contribute to climate change mitigation efforts but also reduce dependence on imported fossil fuels. In the FSM, the recent release of accumulated infrastructure grants under its Compact of Free Association with the US opens up substantial resources to potentially finance infrastructure investments directly contributing to climate change adaptation and mitigation.

In terms of building fiscal buffers, Palau has recorded fiscal surpluses since FY2011, realizing a surplus equivalent to 5.1% of GDP in FY2015 due to the strong performance of the tourism industry. While tax revenues jumped by 20%, additional revenues from fishing license fees and property income also contributed to the surplus. With income mainly dependent on one sector, this can be seen as a risk since tourism is vulnerable to extreme weather conditions and climatic events.

The FSM achieved consolidated surpluses in 6 of the last 7 years, effectively reversing previous chronic deficits. Particularly large surpluses were recorded in FY2014 and FY2015 as fishing license revenues rocketed to $48 million (equivalent to 15% of GDP) and $65 million (21%), respectively, from an average of $24 million (8%) over the preceding 5 years (Figure 2). The RMI has similarly realized rising fiscal surpluses in recent years as fishing license revenues more than doubled from an average of $2.0 million (equivalent to 1.2% of average GDP during the period) in FY2008–FY2011 to $7.6 million (4.1%) in FY2012–FY2015.

This structural shift in fishing license revenue collections presents an important opportunity for the FSM and the RMI to build up their fiscal buffers, not only to boost self-sustainability after their respective compacts with the US expire but also as self-insurance against disasters. Saving and prudent utilization of extra fishing license incomes would help ensure that resources will be available to finance countercyclical and economic recovery efforts post-disaster. However, this should be complemented by effectively mainstreaming DRM in planning and budgeting at all levels of government.

Figure 2: FSM Key Sources of Revenue ($ million, annual)



FSM = Federated States of Micronesia, FY = fiscal year.
Source: Federated States of Micronesia Fiscal Year 2015 Statistical Appendices.

Budget analyses and fiscal performance (Papua New Guinea and Timor-Leste)

Lead authors: Yurendra Basnett and David Freedman.

Two of the Pacific's biggest economies have benefited from natural wealth, but capacity constrained public sectors face significant challenges in service delivery. The fall in commodity prices has impacted the revenue flows of both countries and their budgetary responses make for interesting comparison.

PAPUA NEW GUINEA

The 2016 Mid-Year Economic and Fiscal Outlook, published in June, highlighted a looming revenue shortfall of K1.9 billion (equivalent to 2.8% of GDP) due to slower economic growth and lower commodity prices than anticipated in the 2016 Budget. The government has taken proactive measures in 2016 to address the revenue shortfall and ensure that it remains on course to achieve a balanced budget over the medium term.

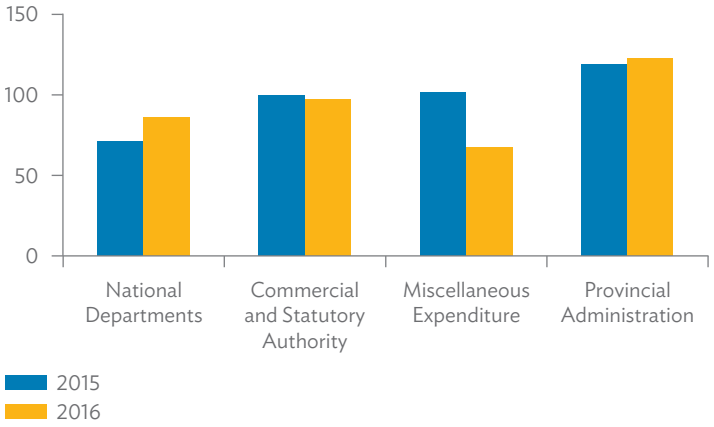
The 2016 supplementary budget, approved in August, sought to adapt to the revenue shortfall by cutting non-essential and non-productive expenditures, as well as seeking to raise new financing. The adjustment included reductions in expenditures (worth K1.2 billion), expected dividends (K233.0 million), and planned asset realization (K500.0 million).

Execution of the budget continues to underperform. The Mid-Year Economic and Fiscal Outlook reported that 20% of the total warrants issued were unspent at the end of June. Provincial governments on average were able to spend 90% of the warrants issued for capital expenditure and 100% for operational expenditure. However, due to poor monitoring, it is difficult to establish the results of such high levels of expenditure. Operational expenditure by national departments was close to 100% of the warrants issued, but only 30% of the warrants issued for capital investment were reported to have been spent (Figures 3 and 4). The health sector has the highest underspend (43% of total warrants issued) (Figure 5). Over 60% of the warrants issued toward the government's priority projects were reported to be unspent. At the other end, projects with high disbursement ratios and performance rates may have been under-allocated, delaying project completion.

The 2017 budget includes a combination of expenditure and revenue measures to achieve the medium-term fiscal target of achieving balanced budget by 2021. The government plans for expenditure of K13.3 billion (17.7% of GDP compared to 16.5% of GDP in 2016) and anticipates revenue of K11.5 billion (15.3% of GDP compared to 20.6% of GDP in 2016) (Figure 6). The resulting budget deficit will be financed with domestic and external borrowing. In 2017, total debt is projected to reach 28.8% of GDP.

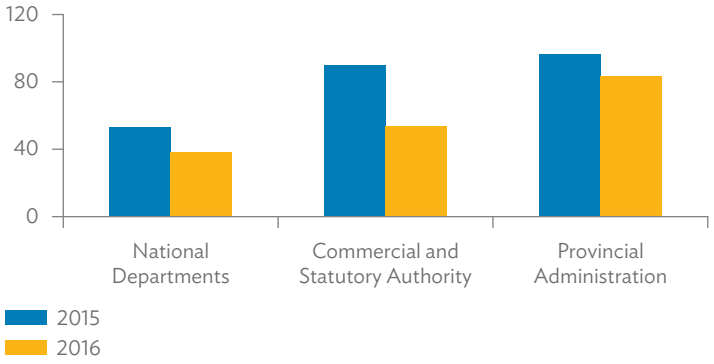
Tax revenue is projected to be K9.2 billion (12.2% of GDP) and grants K1.0 billion (1.4% of GDP). Other revenue, comprising dividends, rents, and sales, is expected to be K1.2 billion (1.7% of GDP). Drawing on the recommendations of the Tax Review Committee, the budget introduces new tax measures to strengthen

Figure 3: PNG Mid-year Spending, Operational Budget (%)



PNG = Papua New Guinea.
Source: Mid-Year Economic and Fiscal Outlook (various years).

Figure 4: PNG Mid-year Spending, Capital Budget (%)



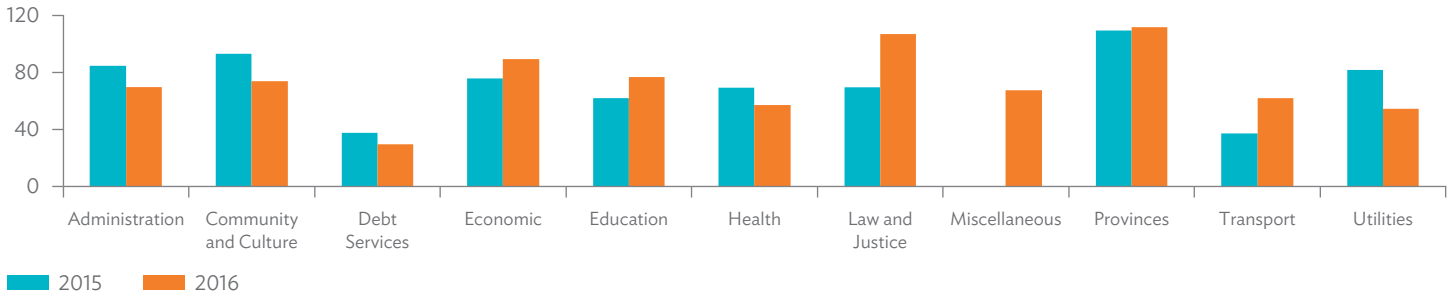
PNG = Papua New Guinea.
Source: Mid-Year Economic and Fiscal Outlook (various years).

compliance, broaden the tax base, and simplify the tax system. These also include increases in the departure tax (which is expected to yield K20.0 million in revenue in 2017) and diesel excise tax (K76.4 million). Of the revenue expected from the increased diesel excise, 72% will be allocated for the National Road Authority to maintain the road network.

Subnational government (30%) and administration (20%) received the largest share of budget allocation (Figure 7). These were followed by debt service (10.0%), health (9.2%), education (8.7%), law and justice (8.4%) and transport (6.7%). Compared with the 2016 supplementary budget, the largest cuts in 2017 were to utilities (42%), health (21%), and transport (12%). The budget prioritizes completion of existing priority projects, and allocates K400 million toward national election spending and K250 million for preparations related to hosting the 2018 Asia-Pacific Economic Cooperation meeting.

The 2017 budget figures show that the subnational government will receive about one-third of the annual budget allocation over the medium-term. The National Planning Act and the service delivery

Figure 5: PNG Mid-year Actual Expenditure, by Sector
(%)



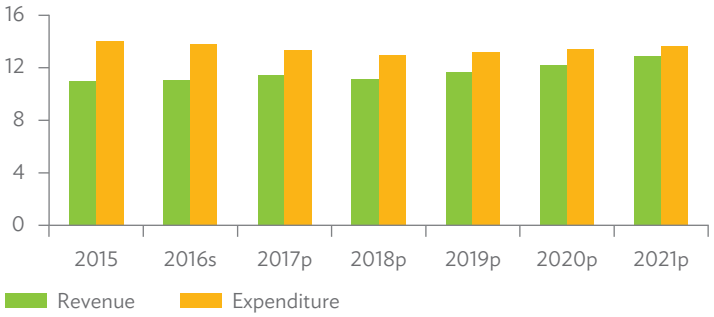
PNG = Papua New Guinea.
Source: Mid-Year Economic and Fiscal Outlook (various years).

framework establish development priorities and benchmarks for investment at the subnational level. Through these subnational investments, the government seeks to improve service delivery and development outcomes. However, weak public finance management and capabilities at the subnational level mean that there are gaps between intentions, allocations, and outcomes. Due to weak monitoring, it is difficult to establish how such funds have been utilized, and what outputs and outcomes were achieved.

The government has made significant headway in improving public financial management over the past year. It has updated the Public Finance Management Act, and rolled out the Integrated Financial Management System (the government accounting system) to 90% of national departments. Recently introduced controls and procedures for loans receiving sovereign guarantee will help improve management of the public debt portfolio. However, improving budget performance and execution remains an important priority.

After implementing the Integrated Financial Management System, the government is currently piloting the system in two provinces and plans to roll it out to remaining provinces. It is also gathering data on key development indicators with the intent to publish a scorecard.

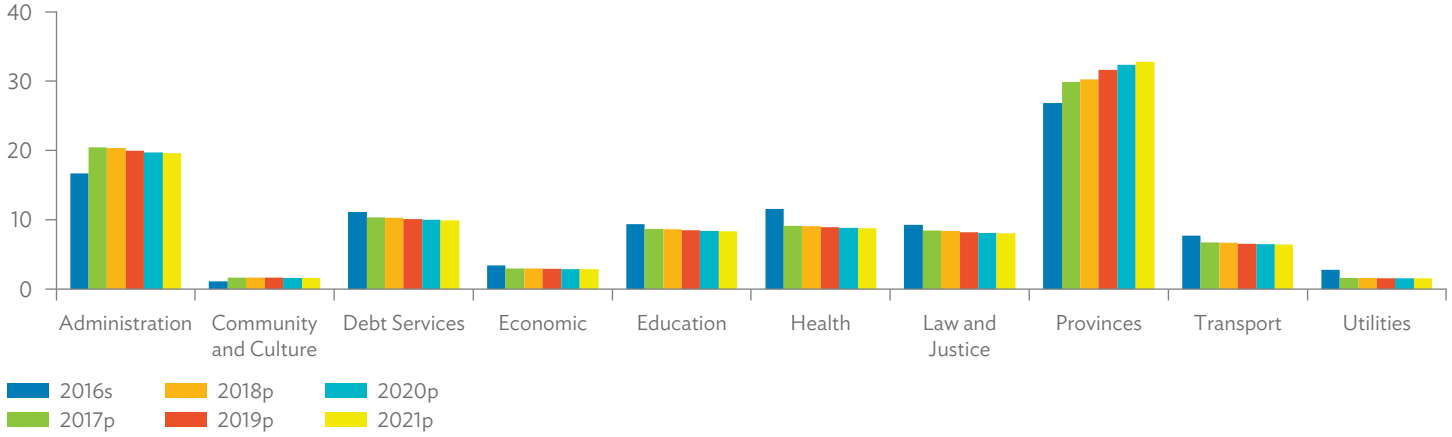
Figure 6: PNG Fiscal Outlook
(K billion)



K = kina, p = projection, PNG = Papua New Guinea, s = supplementary budget.
Sources: Papua New Guinea national budget document (2017);
ADB staff estimates.

These are important initiatives in the right direction and should be supported, along with further strengthening of alignment between budget utilization and medium-term development priorities at the subnational level.

Figure 7: PNG Planned Budget Allocation by Sector
(% of total)



p = projection, PNG = Papua New Guinea, s = supplementary budget.
Sources: National budget documents (various years).

Along with fiscal consolidation, the government should also consider rebuilding fiscal buffers to better absorb shocks. The bulk of the annual expected revenue does not materialize until halfway into the year. This structural constraint gets magnified whenever there is a revenue shortfall due to cyclical factors (e.g., commodity prices, weather patterns), complicating cash-flow management. This is further compounded when the budget invests in large infrastructure projects where cash needs vary from one quarter to another, which in turn are driven by factors that are difficult to accurately forecast. Such issues get masked when revenue is outpacing expenditure, but on the reverse they place sudden brakes on the very investments needed for medium-term development.

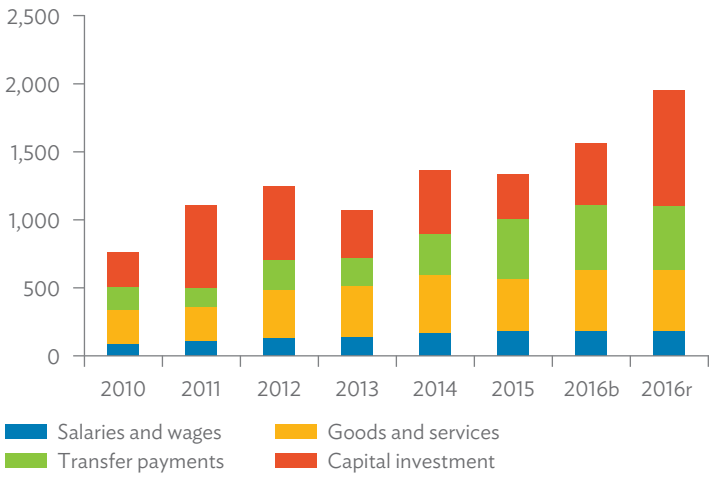
The government plans to develop new medium-term fiscal strategy and development plans (2018 and beyond) as the current ones expire next year. Strong fiscal anchors should be considered to improve fiscal resilience to external shocks. Effective operationalization and transparent management of the Sovereign Wealth Fund would greatly help in rebuilding fiscal buffers, stabilizing the budget, and providing savings for future generations. Large infrastructure projects are usually multi-year, and cannot be expected to neatly fit into the annual budget cycle. Hence, it is important to strengthen approval procedures (using project readiness indicators like design, costing, and availability of funds) as well as institutions that can effectively manage capital (for example the establishment of the infrastructure development authority). Such public institutions exist in the resource sector (e.g., Kumul Petroleum), but not in the non-resource sector where development projects are being implemented.

TIMOR-LESTE

A well-designed sovereign wealth fund has shielded Timor-Leste from the volatility and cash management challenges seen in PNG, but reliance on the Petroleum Fund also highlights the longer term challenge of achieving fiscal sustainability. Despite a large fall in petroleum revenues, down 76.2% (y-o-y) in the first 3 quarters, total government expenditure increased by 16.1% (y-o-y) in the first 10 months of 2016.

This stimulus has been driven by strong growth in capital investment, salaries and wages, and transfer payments. In July, the national Parliament approved an amendment to the budget, with additional appropriations for roads, electricity, a new international port, and the Tasi Mane project to develop a petroleum industry on the South Coast (Figure 8). The additional appropriations brought the revised capital budget to $846.0 million (equivalent to 54.3% of non-oil GDP). Capital investment accounted for 24.1% of total government expenditure during the first 10 months of the year, and was up by 91.0% (y-o-y). However, by the end of October, only 29.2% of the revised capital budget had been executed. Following changes to the Infrastructure Fund law completed in 2016, unspent funds would likely be retained for use in future years without re-appropriating the funds. Expenditures on salaries and wages rose by 11.7% (y-o-y) during January–October, while transfer payments rose by 6.6% (y-o-y). These transfer payments include grants to the Special Administrative Region of Oe'cusse (SAR), which accounted for 11.2% of planned expenditures under the revised budget. All budgeted transfers to the SAR were completed by June, but information on subsequent execution of these funds is limited.

Figure 8: Timor-Leste 2016 Rectification Budget ($, '000)



b = budget, r = rectification budget.
Source: Timor-Leste 2016 Rectification Budget.

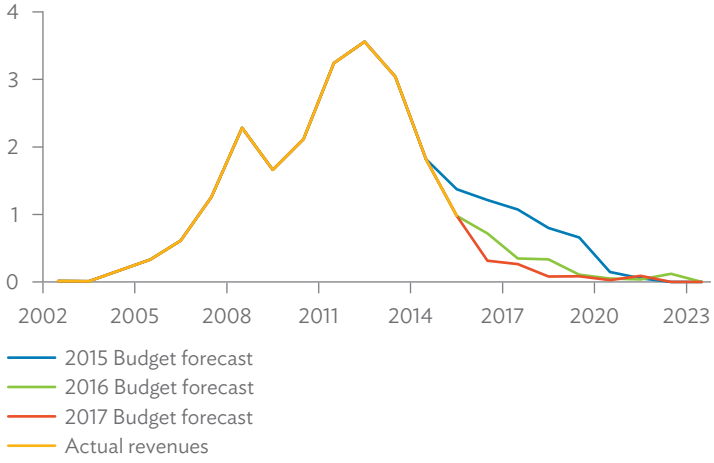
Setting aside the payments to the SAR, expenditures on transfers actually fell by 24.1% (y-o-y). This partly reflects a spike in 2015 transfer payments to veterans of the fight for independence as back payments to newly registered veterans were completed.

Timor-Leste's Petroleum Fund began 2016 with a balance of $16.2 billion (approximately $13,400 per capita) and the Fund's investments have performed well in 2016, earning an overall return of 5.9% during the first three quarters. The Fund's performance will become increasingly important as revenues from current petroleum production come to an end. Projections for petroleum taxes and royalties have been cut by 44.9% (Figure 9). As a result, the estimated sustainable income that can be withdrawn from the Petroleum Fund each year has fallen to $481.6 million compared with $544.8 million in 2016 and $787.0 million back in 2013.

Fiscal constraints highlight the need for careful prioritization of public spending. The 2017 budget prioritizes agriculture, nutrition, education, and infrastructure (Sustainable Development Goals 2, 4 and 9), which were identified as priorities for the 2017 Budget. The draft budget proposes a small reduction in total spending while continuing the government's strategy of scaling up its capital investments (Figure 10). Budgeted expenditures for 2017 are $1.4 million, excluding grants—29.0% lower than the final appropriation for 2016 and 30.0% lower than the projection for 2017 contained in the 2016 budget. However, when taking into account the additional appropriations that were approved in the revised 2016 budget, planned spending during 2016–2017 is only 5.7% lower than the initial plan for 2016–2017. The prospect of a moderate reduction in public spending in 2017 have seen the government's growth forecast for 2017 cut to 3.9%, rising to 6.5% in 2018.

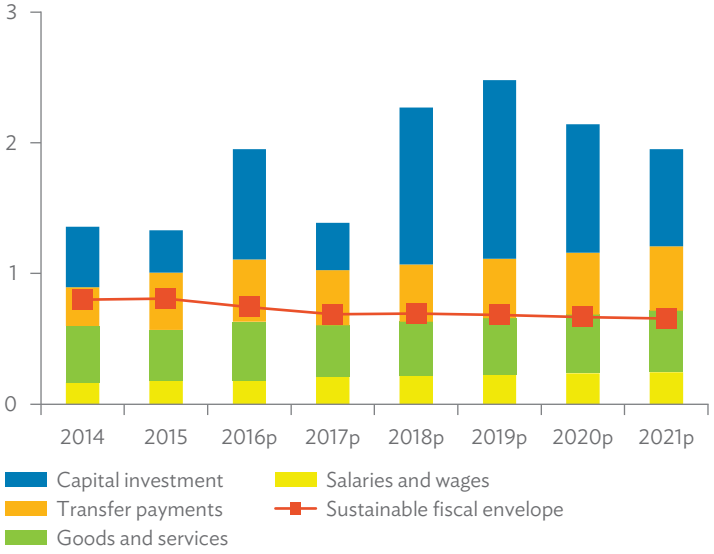
The 2017 budget plans to spend $324.4 million for capital investments in 2017, and a further $4.14 billion during 2018–2021. These investments are concentrated in a small number of sectors, with roads, ports, airports, and the Tasi Mane project accounting for 74.6% of all planned investments (Figure 11). A new asset maintenance program has been included in the 2017 budget, but

Figure 9: Timor-Leste Petroleum Revenues ($ million)



Source: Timor-Leste national budget documents (various years).

Figure 10: Timor-Leste Draft 2017 Budget ($ million)



p = projection.
Source: Timor-Leste Draft 2017 State Budget.

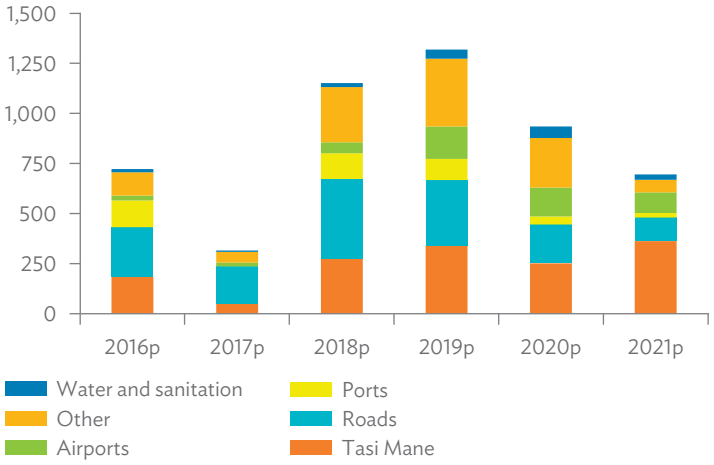
the allocation for this program will not cover all maintenance needs as it is only equivalent to 1% of planned capital investment during 2016–2021. Proposed investments in water and sanitation are also well below the levels needed to meet national targets for access to clean water.

Timor-Leste continues to rely on its Petroleum Fund to finance the budget, but 2016 has seen good progress in domestic revenue collection. Non-oil revenues rose by 31.3% (y-o-y) during January–October on the back of a 25.0% increase in tax revenues and a 7.7% increase in non-tax revenues. These improvements are expected to continue during 2017–2021, with revenues projected to grow at an average of 5.9% per annum. As a result, projections for domestic revenues in 2020 are now 17.9% higher than the equivalent forecast from with 2016 budget.

Despite this growth, domestic revenues will only cover 11.4% of planned expenditures during 2017–2021. The government is planning to finance a further 13.8% of the budget with concessional loans with the remaining 74.8% to be funded from the Petroleum Fund. This will require withdrawals from the Fund that exceed the estimated sustainable income. As a result, the Petroleum Fund balance is projected to fall to $13.1 billion by 2021 (Figure 12).

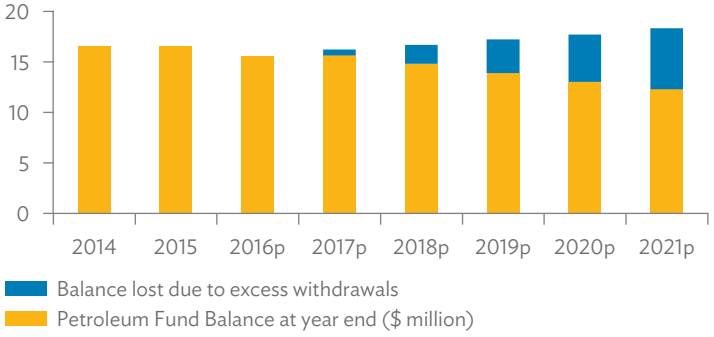
Further strengthening of the systems for public investment management can help to ensure that Petroleum Fund withdrawals are used efficiently. Fiscal sustainability will also require continued strengthening of the tax administration and broadening of the tax base. Timor-Leste's Sixth Constitutional Government has prioritized fiscal reforms and in 2016 it approved a new customs procedures code and passed legislation to establish new authorities for customs and other domestic revenues. There is also scope for key legislative reforms to be completed before the government's term ends in 2017. This includes legislation to adjust tax rates and support the introduction of a value-added tax that would underpin future domestic revenue collection. If approved and implemented well, these reforms will help Timor-Leste on its path to a sustainable and diversified economy.

Figure 11: Timor-Leste Planned Capital Investments ($, '000)



p = projection.
Source: Timor-Leste Draft 2017 State Budget.

Figure 12: Timor-Leste Impact of Excess Withdrawals on the Petroleum Fund ($ billion)



p = projection.
Source: Timor-Leste national budget documents (various years).

Nauru: Managing fiscal risks and promoting sustainability

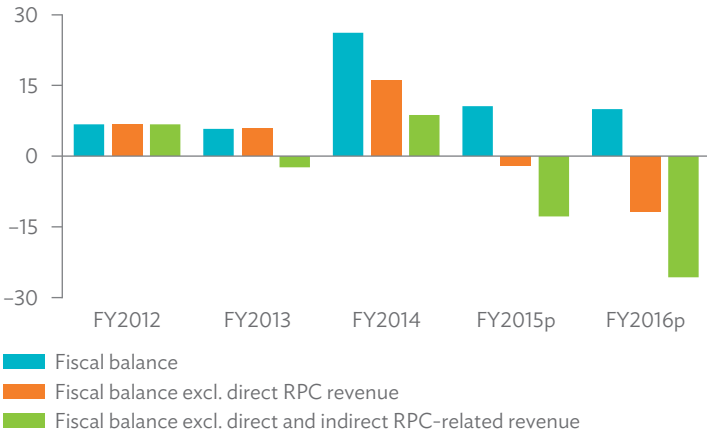
Lead author: Roland Rajah.

In November, the Australian government announced a prospective deal that would see asylum seekers, currently in Nauru under its Regional Processing Centre (RPC) program, resettled in the United States. This could pose a major negative shock for Nauru's economy. The RPC program is a major source of economic activity and local employment. RPC-related revenue, closely linked to the number of asylum seekers on the island, also currently contributes around half of government revenue (excluding grants). A surplus of 10.0% of GDP was recorded in FY2016 (ended 30 June), but if RPC-related revenue were excluded this would equate to a deficit of about 25.7% of GDP (Figure 13).

It is still uncertain at the time of writing whether the deal will go ahead and, if it does, the pace and scale of any reduction in the RPC and associated revenue. If the RPC is closed, or significantly scaled down, the government could undergo a painful and potentially destabilizing fiscal adjustment. Without access to additional external financing, government spending would have to be severely curtailed.

Even if the RPC program remains largely in place, it is imperative to reduce the risk of future "fiscal cliffs." This requires a significant increase in government saving, which could then be used to finance future budgetary expenditures on a sustainable basis. Ideally, the majority of RPC-related revenue should be saved. This includes increasing transfers to the newly established Intergenerational Trust Fund, and setting aside funds for future infrastructure maintenance needs. Cash reserves should also be built up and maintained to help manage unexpected fiscal shocks. This strategy would require a significant reduction in government spending, but if carefully managed, damage to the economy would be limited. Most importantly, it would reduce the risk of any future fiscal cliff, and support greater sustainability and intergenerational equity.

Figure 13: Nauru Fiscal Sustainability Indicators
(% of GDP)



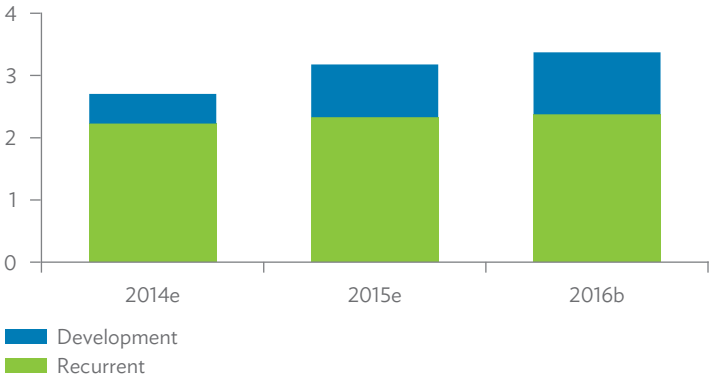
FY = fiscal year, p = projection, RPC = Regional Processing Centre.
Source: ADB staff estimates based on figures from the Nauru Department of Finance.

Solomon Islands: Improving the quality of public investment

Lead authors: Roland Rajah and Lorena Estigarribia.

The Solomon Islands government has recently pursued a strategy of significantly increasing development spending in order to boost growth and support sustainable development. Development spending has increased from 16.2% of total spending in 2014 to a targeted 27.1% in 2016 (Figure 14). Development spending by the government in 2016 is likely to exceed that by development partners, which have traditionally played the primary role in funding public investment.

Figure 14: Solomon Islands Government Spending
(SI$ billions)

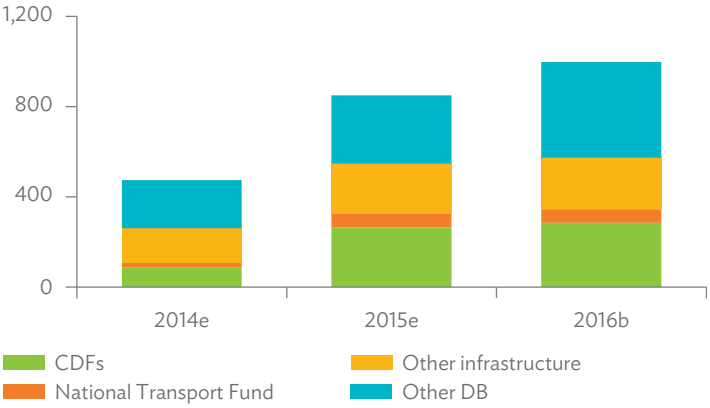


b = budget, e = estimate, SI$ = Solomon Islands dollar.
Sources: Solomon Islands budget documents (various years); ADB staff estimates.

Increased public investment is usually justified on the expectation that this will boost growth by adding to the stock of public capital, particularly infrastructure stock, and in turn raise productivity. However, weak public investment management can undermine this expectation, resulting in projects realizing low—even negative—returns that ultimately do not promote growth and instead potentially contribute to fiscal stability risks. Solomon Islands faces particularly acute challenges due to its difficult structural conditions, including limited administrative capacity, postconflict fragility, and high development partner dependence, especially for large infrastructure projects.

These difficulties manifest in a fragmented public investment system. For instance, a sizable and growing share of the development budget is directed to Constituency Development Funds for use by individual members of Parliament (Figure 15). These funds are subject to limited controls and poorly integrated with other government policies and activities. On the other hand, large infrastructure projects and other key sectors (e.g., transport, health, and education) are dominated by development partners who often operate using their own systems, with limited integration with government processes. Improving public investment management in this context requires a strategic approach to gradually strengthen the overall system.

Figure 15: Solomon Islands Decomposition of the Development Budget
(SI$ millions)



b = budget, CDFs = Constituency Development Funds, DB = development budget, e = estimate, SI$ = Solomon Islands dollar.
Sources: Solomon Islands budget documents (various years); ADB staff estimates.

Simultaneously, the government should make active use, and learn from the National Transport Fund (NTF), which has successfully developed credible public investment management processes as well as government capacity.

The starting point for effective public investment management is the project selection process. The government recently released a new National Development Strategy 2016–2035, and has detailed sector strategies in place for transport, health, and education. These provide a solid foundation for guiding project selection. The Ministry of Development Planning and Aid Coordination actively screens development budget proposals against the National Development Strategy and prepares a rolling 5-year medium-term development plan to support multiyear planning. Projects to be financed by the NTF must be included in the National Transport Plan and its associated 5-year action plan.

Despite these basic positive features, deficiencies in project selection appear to continue to undermine the quality of public investment. The appraisal process is weak; in particular, proposals are not systematically subject to cost–benefit analysis except for debt-financed projects. The recurrent cost implications of development projects are generally not properly assessed and linked to the recurrent budget. Most problematic, a large share of the development budget tends to originate at the political level, outside the formal administrative process. In addition, many projects in the development budget are not capital projects, but ongoing programs that should be funded by the recurrent budget.

Even with sound project selection, project returns can be undermined by weak implementation. Project implementation is a perennial challenge due to weak capacity across the government. However, the formal system has many positive aspects that can provide a basis for progress. For instance, tender and contract award information is published online and contracts must be tendered on a competitive basis, although previous assessments have identified problems with compliance. Spending ministries generally have basic project management arrangements in place—for instance, they are required to prepare simple implementation plans and identify the senior officers responsible for major projects. Adjustments to project plans are also regularly incorporated into the annual budget process.

Further, basic systems for operating and managing assets are weak. The government as a whole lacks a national asset management policy or system, and does not maintain a central asset registry. In contrast, the Ministry for Infrastructure Development maintains an asset registry for the transport sector, and maintenance needs are well incorporated into the NTF and transport planning processes.

Strengthening public investment management is necessarily a gradual process. In the meantime, the government could realize immediate improvements in public investment returns within the existing system by redirecting funds from low-return areas—e.g., recurrent programs and Constituency Development Funds—toward higher-return areas, including the NTF and capital investment more generally. Implementation readiness could also be prioritized in the project selection process.

Vanuatu: Reforming state-owned enterprises

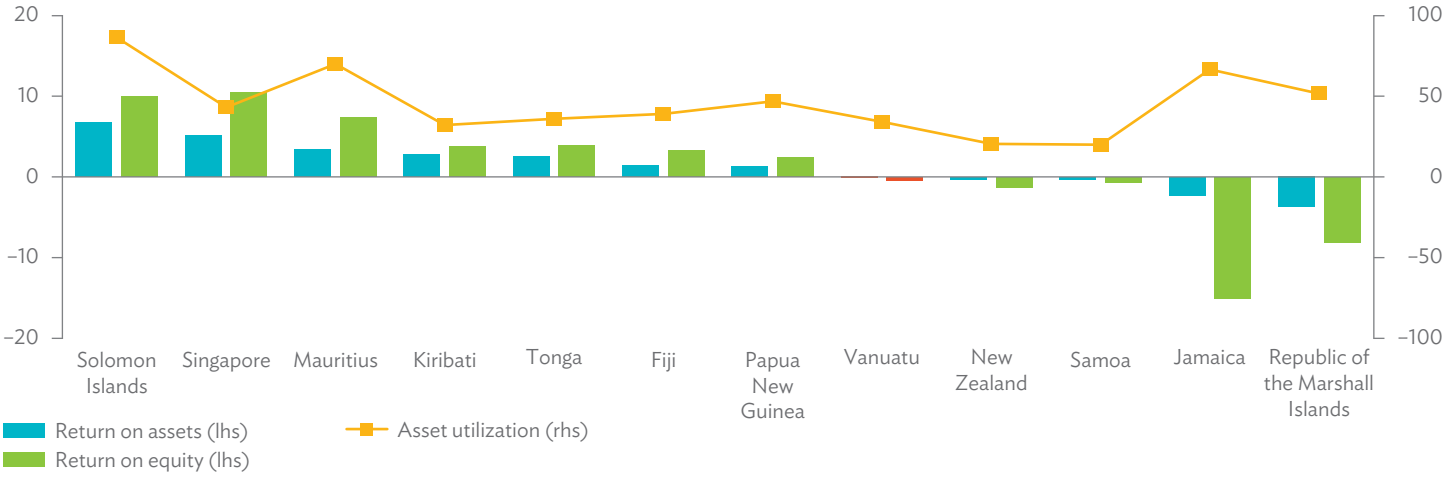
Lead author: Roland Rajah.

State-owned enterprises (SOEs), known locally as commercial government business enterprises, play an important role in the Vanuatu economy. SOEs account for about 8% of the total stock of fixed capital and dominate several sectors including banking, broadcasting, postal operations, and transport.

Vanuatu's SOE portfolio has historically performed poorly. Available financial statements indicate that SOEs, on the whole, have realized significant losses and negative returns (the portfolio's return on assets averaged −0.1% during 2010–2014 and return on equity averaged −0.4%) (Figure 16). Reflecting this, SOEs represent a significant and ongoing fiscal cost, with government transfers to SOEs averaging 2.3% of total spending over 2010–2014 (Figure 17). Since SOEs control a significant share of the economy's resources, this suggests a significant productivity cost. Indeed, SOEs add only 0.2% to Vanuatu's GDP for every 1.0% share of the total fixed capital stock they hold.

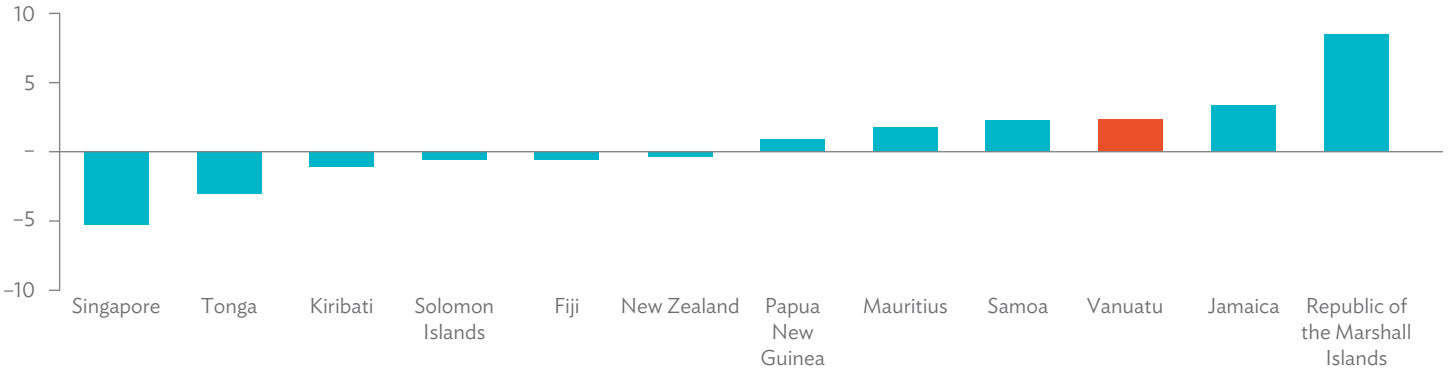
Unfunded community service obligations (CSOs) are a significant financial burden. If not properly contracted and funded, CSOs reduce profitability, distort SOE incentives, and can undermine the efficient pursuit of government social policy objectives. Air Vanuatu accounted for 94% of SOE losses during 2008–2014, reflecting unfunded CSOs for air services to remote and rural areas estimated at Vt176.0 million in 2013 alone and resulting in a Vt1.4 billion loan and a Vt2.2 billion guarantee from the government. In 2016, the government is providing another Vt423 million in financing for Air Vanuatu. The financial performance of the National Bank of Vanuatu has also declined in recent years due in part to unfunded CSOs for rural outreach, estimated to cost about Vt165 million in 2014.

Figure 16: SOE Financial Performance
(2010–2014 average, %)



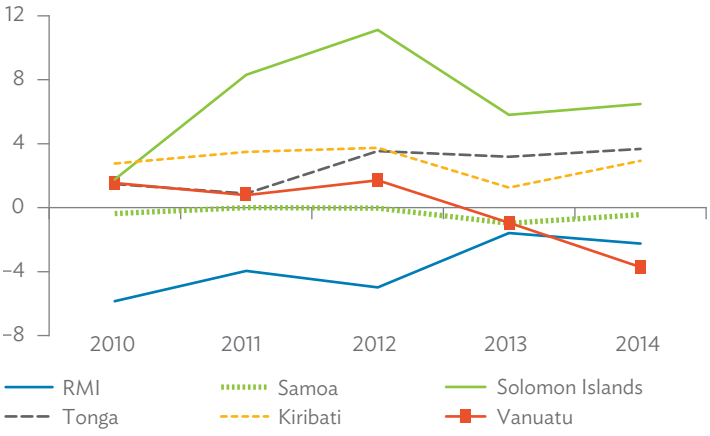
SOE = state-owned enterprise.
Source: ADB. 2016. *Finding balance: Benchmarking the performance of state-owned enterprises in island countries.* Manila.

Figure 17: Government Transfers to SOEs
(2010–2014 average, % share of government expenditure)



SOE = state-owned enterprise.
Source: ADB. 2016. *Finding balance: Benchmarking the performance of state-owned enterprises in island countries.* Manila.

Figure 18: SOE Returns on Assets
(%)



RMI = Republic of the Marshall Islands, SOE = state-owned enterprise.
Source: ADB. 2016. *Finding balance: Benchmarking the performance of state-owned enterprises in island countries.* Manila.

Pacific experience shows that reforms to strengthen commercial orientation and accountability can improve SOE performance, though political will must be sustained over time. Countries that have undertaken the most substantive reforms, such as Solomon Islands and Tonga, are seeing improvements in financial performance (Figure 18). Moreover, SOE productivity in these countries appears to be rising.

Although Vanuatu adopted a broad-based SOE reform policy in October 2013 under the cabinet at the time, implementation has been weak. An SOE monitoring unit has been formally established, but it remains under-resourced. An SOE minister is yet to be appointed, and sector ministers remain responsible for SOEs in their portfolios. To provide a solid foundation for improving SOE performance, the government has prepared an SOE bill based on the 2013 policy. Its passage would require SOEs to generate profits to cover their cost of capital, establish a framework for funding CSOs, and prohibit the appointment of civil servants and elected officials to SOE boards.

Attention then needs to shift to reform implementation. CSO funding agreements are needed for Air Vanuatu and the National Bank of Vanuatu. Meanwhile, a number of insolvent and inactive SOEs, such as the Vanuatu Commodities Marketing Board, Vanuatu Livestock Development Corporation, and Vanuatu Agriculture Development Bank (which has accumulated over Vt100 million in losses) should be liquidated. Several other SOEs, such as Vanuatu Housing Corporation, Vanuatu Broadcasting Corporation, and Metenesel Estates, could be restructured to facilitate greater private sector activity in these areas.

ICT for Poverty Reduction (Kiribati, Tonga, and Tuvalu)

Lead authors: Malie Lototele, Lai Tora, and Johannes Wolff.

Information and communication technology (ICT) can greatly enhance economic growth and the quality of life—improving basic service delivery and labor productivity, opening up new business opportunities, enhancing access to financial services, and reducing transaction costs. The benefits are clear for the remote and dispersed Pacific countries. However, as technology capabilities advance, there is concern that these developing states will be left further behind and so fail to capture the estimated 1.3% increase in GDP for every 10.0% increase in internet penetration.

KIRIBATI AND TUVALU

Telecommunications connectivity in Kiribati and Tuvalu is currently via satellite, and expense and limited capacity prohibit widespread use, especially in the more distant, sparsely populated outer islands. The technology also suffers from weather-related interruptions. The two countries' respective national plans set out commitments to improve ICT services, but how can this be done to ensure both reduced price and improved quality? Experience around the world has shown that sectoral reform requires attention to efficient infrastructure investments, competition in service provision, and regulation.

Both Tuvalu and Kiribati have a single telecom provider. In the case of Tuvalu, this is the Tuvalu Telecom Corporation, a state-owned enterprise with commercial objectives. Kiribati has undertaken recent reforms that resulted in the government-owned Telecom Services Kiribati Limited being sold to Amalgamated Telecom Holding Kiribati Limited (a subsidiary of Fiji's ATH, which has mixed ownership). A second mobile telecom provider is also in the process of starting operations in Kiribati. In 2015, the World Bank assisted Kiribati to set up the Communications Commission of Kiribati, responsible for regulating the full range of telecommunication services. It is still in its initial days of operation and will take some time to be fully effective. With roughly 10 times the population of Tuvalu, Kiribati is better placed to create a competitive telecommunication sector. However, Tuvalu could certainly look to make better use of performance management to simulate the effects of competition.

A submarine cable could provide higher capacity and quality broadband internet at a much lower unit cost. This makes the internet more accessible to the broader population, and would promote social cohesion. Regional integration would also be supported by increasing the frequency and quality of communications among the countries in the Pacific region, enabling greater trade in services (e.g., tourism and back-office functions) and allowing the region to form a sizable market for digital products and services. It would also strengthen existing regional public goods, and encourage new ones by allowing Pacific economies to pool their knowledge and human resources.

So how far can internet prices fall in these countries? In Tuvalu, users are paying A$100 a month for just 3 GB of data, in Kiribati the same expenditure provides 10 GB. In general, ICT services can cost more than 20% of per capita income compared with less than 5% in developed countries, and online communication is a significant issue for these island nations, particularly in the outlying islands. ADB and the World Bank are working with Kiribati on a project to lay submarine fiber-optic cables connecting them to the global system. In Tonga, whose population size is similar to Kiribati's, an international cable project has pushed down internet costs by up to 60% since 2013. Tuvalu's options for improved connectivity are being examined by the World Bank; however, it is likely that the typical $20 million–$50 million investment cost for a submarine cable will be unaffordable, leaving low-level satellites (such as O3B) as the next best alternative. This technology is being widely used in the Pacific. In Palau, when O3B came into service, internet prices immediately fell by 50%.

TONGA

Since August 2013, Tonga has been connected to the internet via a submarine fiber-optic cable system through Fiji. This was jointly financed by ADB and the World Bank through the Pacific Regional Connectivity Program. With the submarine cable project, internet capacity and cost in Tonga has improved significantly. Wholesale internet prices have dropped from $3,800 to $495 per Mbps per month, with the capacity rising from 65 Mbps to 300 Mbps. In addition, plans are under way to build a domestic cable to connect the main island of Tongatapu with the major outer island groups of Vava'u and Ha'apai. This, together with ongoing investments in satellite and microwave communications by Tonga Communications Corporation and Digicel (Tonga) Ltd., will further improve internet connectivity and accessibility to the outer islands.

The missing piece of the puzzle, strong and independent regulation of the industry, is now being addressed. Parliament approved the communications bill and the communications commission bill, the latter of which provides for the establishment of an independent regulatory body, in October 2016. This is expected to support improved accessibility and further reductions in wholesale bandwidth prices.

Like many other Pacific islanders, Tongans have leapfrogged the fixed internet connection technology and rely heavily on mobile devices for connectivity. Current mobile phone penetration levels are around 95% across Tonga, providing an enormous opportunity to look at providing government services in more innovative and accessible ways.

The government aims to use affordable and available internet connectivity to improve public service delivery, particularly to the outer islands. The government is working toward developing an e-government master plan and looking at opportunities to strengthen ICT capacity within the government. These include introducing appropriate ICT policy, regulatory, and legal environments; setting up government ICT infrastructure and capacity; introducing new electronic applications; and promoting digital interaction with citizens.

With the broader environment and infrastructure in place, what can be done to improve service provision? The Ministry of Health plans to adopt ICT to strengthen the health information system. Technical efficiencies can be gained through digitalization of health information by reducing duplicate reporting, enabling up-to-date analytics, and streamlining logistics management—particularly for drugs and medical supplies. By doing so, a digital health information system can support evidence-based planning in the health sector. Digital human resource systems can also improve the productivity and allocation of existing staff, and support capacity building through on-the-job learning. ADB will support Tonga to help it overcome the initial costs (both direct and indirect) to design and implement a system that supports the needs of the Ministry of Health, is flexible enough to adapt and expand, and is implemented within the current ICT capacity context.

Samoa: Reinvigorating agricultural production

Lead author: Shiu Raj Singh.

Samoa's economy expanded by 6.4% in FY2016 (ended 30 June). The fishing, hotel, transport, construction, communications, commerce, and food manufacturing sectors are important contributors to this performance.

However, not all sectors have been doing well. Agriculture declined at an annual average rate of 3.4% between FY2009 and FY2016. Reduced agricultural output has contributed to higher food prices, the most significant driver of domestic inflation trends in Samoa. Domestic inflation reached 5.0% in FY2016, largely due to food price increases.

Although fish was the main merchandise export in FY2016, accounting for 28.3% of the total, other agricultural exports—including fruit juices, coconut products and banana chips—take up a far smaller space in the export basket.

Yet Samoa is well placed in terms of area of arable land, rainfall, and topography to produce far more agricultural output. Most Samoans grow food crops and raise livestock for home consumption, and some cash crops for local sale. Village agriculture, in which family gardens have a central role, utilizes the largest area of land, employs most rural-based family members, and produces a major portion of food and cash crops. For many years, the government's agricultural policy was centered on ensuring food security and a stable supply of Samoa's staple food crops. Production has been organized using the offices of the *pulenuu* (village mayor) and village councils. This approach was successful in ensuring adequate food supplies, but did not generate much interest in commercial agriculture.

The government is proactively supporting greater commercialization of agriculture through the Agriculture Sector Plan 2016–2020. This sets the overarching sector goal of increasing food, nutrition, and income security. The five-year plan is costed at ST117 million and has a four-pronged focus: (i) improved sector coordination, including policy coherence and timely agricultural statistics; (ii) enhancing smallholder productivity, production capacity, and related food supply chain quality as well as reducing postharvest losses; (iii) building and reinforcing agriculture value chains; and (iv) sustainable agricultural and fisheries resource management practices.

Guided by the plan, the government is increasing its financial support for the sector. Expenditure for the agriculture and fisheries sector was 3.1% of the total expenditure in FY2016, and this has been raised to 4.5% in the FY2017 budget.

The World Bank-financed Samoa Agriculture Competitiveness Enhancement Project (SACEP) 2012–2017 is intended to increase commercial production. Significant support has been provided for agriculture research and development activities, supporting increased commercialization of small-scale enterprises. The planned provision of better input supplies (improved breeding stock and improved locally available feed) will consolidate initial gains and enable these to be scaled up as the sector plan is implemented. Support to improve the agriculture value chain is being made through the ADB-financed Samoa Agribusiness Project, which aims to provide partner agribusinesses with access to financing and support services (discussed in more detail in the article starting on page 17).

Other key government investments are also expected to improve the business environment for agriculture. The airport upgrade and new submarine cable, scheduled for commissioning in late 2017, will allow for better connectivity with export markets, thus facilitating more commercialization.

The twin challenges of smallness and remoteness have limited Pacific economies' opportunities for exporting and participating in global value chains, at least in traditional markets for high-volume commodities. However, niche product development is gradually carving out an alternative path for these economies to partake in the benefits of international trade. The Cambridge Dictionary defines a niche market as a small area of trade within the economy, often involving specialized products. In the context of the Pacific, niche products and services are those that can absorb elevated production costs resulting from small market structures (e.g., diseconomies of scale, high wages from skilled labor scarcity), as well as high transportation costs stemming from distance to international markets.

Niche products harness the Pacific's pristine environment, rich cultures, and unique histories to anchor product differentiation. In this way, what are often viewed as disadvantages can be leveraged to become clear advantages in marketing products globally. Smallness translates to unique products that are very limited in supply, while remoteness underscores the unspoiled and exotic nature of raw materials used. These factors allow Pacific niche products to fetch premium prices in the global market, effectively overcoming the hurdle posed by high production costs.

The policy briefs featured in this issue highlight the importance of raising quality standards and expanding access to trade finance to further support niche product development in the Pacific.

Developments in agriculture and agribusiness in Samoa

Samoa is highly vulnerable to exogenous shocks and faces particular challenges in achieving sustainable development. The global economic crisis in 2008, a tsunami in 2009, and Tropical Cyclone Evan in 2012 have had adverse, long-lasting impacts on growth, which averaged just 1.2% during FY2008–FY2015, well below the 4.3% average during FY1999–FY2007. The cyclone, in particular, had a severe impact on the agriculture sector by causing damage to production, infrastructure, and crops. Recovery efforts supported rehabilitation of the sector, but despite these interventions, total agricultural output has continued to decline.

The policy framework

The government seeks to support higher growth through an improved agriculture sector. ADB's 2015 private sector assessment (PSA) of Samoa shows that, while macroeconomic stability has been restored, binding constraints to growth were microeconomic, including barriers to agriculture sector development. Revitalizing agriculture and increasing exports therefore feature prominently in the government's policy framework, including the Strategy for the Development of Samoa (SDS), 2012–2016 and the Agriculture Sector Plan (ASP), 2016–2020. The SDS recognizes that "the agriculture sector (including fisheries) remains at the forefront of economic growth and is key to ensuring food security, income generation and enhanced export capacity."

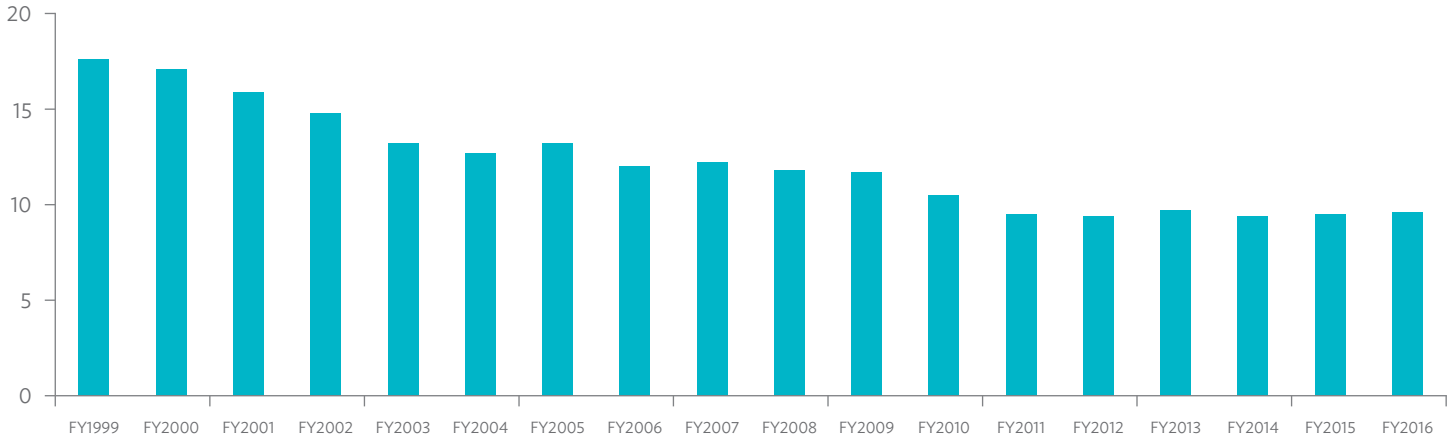
A review of the ASP for 2011–2015 found that it did not lead to an increase in output and had a very weak alignment with the business, legal, and regulatory environment strategy in the SDS (Atkinson and Fong 2016). This partly stemmed from the constraints around access to land for agricultural and other economic purposes. Reforms to increase access have progressed slowly, which was acceptable given that significant consultations were a requisite. The Customary Land Advisory Commission, established in 2013, has undertaken a series of consultations that are now entering their final phase. This final phase of consultations will help determine the necessary legislative reforms going forward.

During the period of the earlier ASP, a number of laws (including the Egg Standards Act, Biosecurity Act, Slaughter and Meat Supply Act, and Fisheries Act) were enacted, improving the policy and regulatory framework. The ASP review suggested that stakeholders' roles and responsibilities need to be appropriately defined, highlighted the need for ownership in reciprocal sector strategies, and recommended that an expenditure and monitoring and evaluation framework linked to the ASP be established. The review also suggested that assistance should be provided to strengthen private sector organizations that are able to (i) provide advocacy, (ii) assist in the formation of public–private partnerships, (iii) strengthen value chains, and (iv) act as platforms for the delivery of training.

The new ASP, 2016–2020, is guided by the theme of "enhancing partnerships to develop and sustain agriculture and fisheries" and incorporates several findings of the ASP review. The government delivers its support programs to farming households through programs administered by the Ministry of Agriculture, largely in partnership with the Ministry for Women, Community and Social Development through the use of its community and social development structure involving village mayors, and the village women and youth representatives. This enables the government to reach out to all communities.

According to the chair of the Samoa Farmers Association, "government agricultural policy has been to ensure food security and the availability of Samoa's staple food crops. 'Talomua' was the flagship of this policy, where production at village level is organised using the offices of the *pulenuu* (village mayor) and village councils. Incentives were in the form of cash prizes dished out at the annual Talomua farm displays/competitions. The strategy may have produced adequate food staples, but it has little value in terms of being transformational or sustainable. Talomua is firmly anchored in maintaining the status quo, not in changing mind sets and way of farming" (Toleafoa 2014).

Figure 1: Share of Agriculture to the Samoan Economy
(% of nominal GDP)



FY = fiscal year, GDP = gross domestic product.
Sources: Samoa Bureau of Statistics, ADB estimates.

Trends in the sector

Agriculture and fisheries contributed only 9.6% to Samoa's GDP in FY2016 (ended 30 June), down from 17.6% in FY1999. Figure 1 reflects a steady downward trend for the sector despite the continued dependence of the rural-based population on agriculture for their livelihoods. Subsistence production dominates Samoa's agriculture sector, with occasional surpluses for sale in local markets. The 2015 agricultural survey reports that of 28,119 households, 27,411 (97.5%) were involved in agriculture. Of these, 2,014 employed 3,884 workers from outside the family.

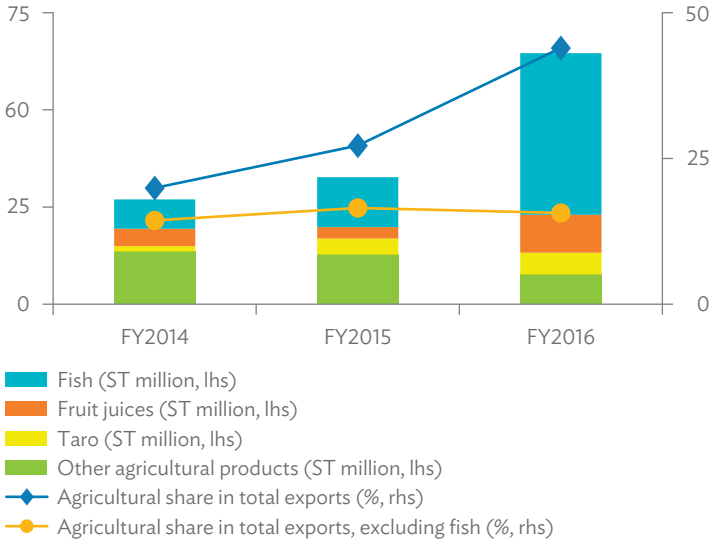
In 2015, 7,664 households produced crops on a semi-subsistence basis, selling their surplus produce in local markets, while 1,045 produced crops on a commercial basis. Of the 194,335 people living as households, 38,015 (19.6%) lived on farms. Samoa's major agriculture exports comprise fruit juices, taro, beer, coconut products, and fish, which was boosted by the commencement of new deep sea fishing operations in FY2016 (Figure 2).

Despite the high number of households involved in some form of agriculture, food and agricultural product imports contribute significantly to Samoa's overall trade deficit. Food and beverage imports were valued at ST262.6 million in FY2016, compared with food and beverage exports of only ST64.8 million (of which, 43.7% were fish exports). The food and beverage trade deficit (Figure 3) represents a significant opportunity for agribusinesses in Samoa to reduce the deficit through increased domestic production and exports. The effectiveness of government policy and its focus on promoting agriculture and agribusinesses will be reflected in the food and beverage trade deficit going forward.

Role of agribusinesses and key constraints

Agribusinesses, however small, are important for stimulating agricultural production. These generally have strong niche markets, but are largely unable to compete in the international market.

Figure 2: Samoa's Major Agriculture Exports

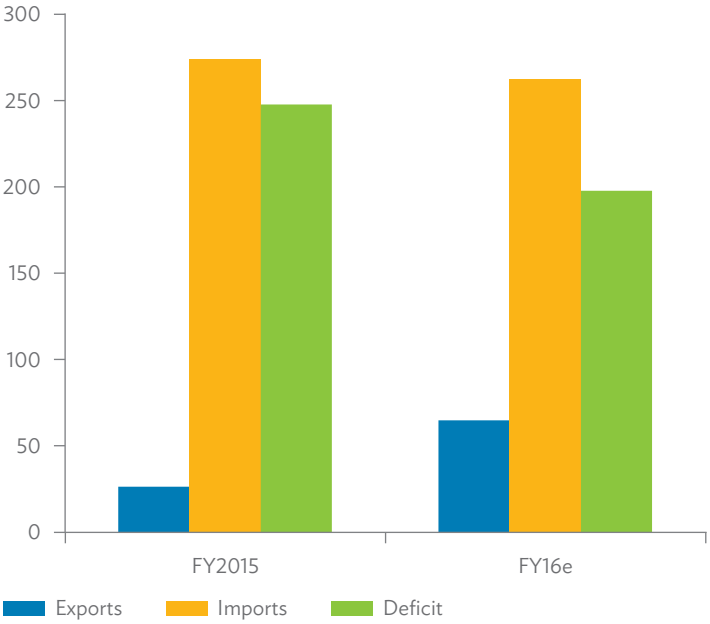


FY = fiscal year.
Source: Samoa Bureau of Statistics.

Most agribusinesses are small-scale, family-owned enterprises with fewer than 400 employees, mostly in agro-industrial production (e.g., chili sauce, banana chips) and fresh products for export (e.g., taro, Tahitian lime). Average annual turnover levels are $200,000 for smaller companies and above $1 million for a few larger companies. They provide employment and income-earning opportunities for many smallholder families in Samoa as suppliers of raw materials. Agribusiness development is therefore essential for promoting agriculture's role in the economy.

Traditionally, agriculture value chains linking subsistence farmers with agribusinesses—and through this, the global marketplace—have been weak. Agriculture's role has been viewed as important

Figure 3: Samoa Food and Beverages Trade
(million tala)



e = estimate, FY = fiscal year.
Sources: Samoa Bureau of Statistics; ADB estimates.

for subsistence rather than income generation, and as such most of the land in Samoa is owned by family units rather than individuals. With few exceptions, Samoan agribusinesses have struggled to procure sufficient raw materials of consistently good quality. Examples include (i) virgin coconut oil producers that were unable to fill existing export orders, and (ii) shortages of taro for processing into snack foods and of the appropriate fresh varieties for export. Most enterprises procure the raw materials offered to them by smallholders, but do not actively encourage production through supply chain linkages such as contract farming, outgrower arrangements, or product collection networks. Through effective participation in value chains, rural producers and agribusinesses will increase household incomes and sales volumes, and create more jobs.

Agribusiness enterprises have been seen as failing to achieve the consistent standards required to compete effectively and/or enter overseas markets. Common weaknesses include (i) lack of technical skills for effective production management, establishment and maintenance of supply chains, and food safety standards accreditation; (ii) inadequate export planning and marketing; and (iii) weak business and financial management.

The lack of capital and access to finance further constrains business expansion and diversification. In Samoa, loans are difficult to obtain and expensive due to insufficient acceptable collateral, limited own capital, and banks' negative perception of the capabilities of the borrower and the agriculture sector. Commercial banks generally require 200% security cover, compared with the regional and global requirement of 150%, and their lending to agriculture, forestry, and fisheries projects has been minimal. Companies face difficulties securing additional equity as there is neither a local stock exchange nor any investors interested in relatively small agribusiness projects in Samoa.

There is also the constraint of limited access to technical and business support services throughout the value chain. Such services could help address banks' concerns about potential borrowers' internal capabilities, thereby leveraging commercial finance.

These constraints, together with the geographical and economic challenges of a small island state, preclude standard solutions. Solutions need to include (i) commercial banks as the lead facilitators of private sector development, (ii) capital to strengthen agribusinesses' balance sheets, and (iii) technical and managerial support throughout the value chain. ADB's Samoa AgriBusiness Support (SABS) project, approved in 2014, supports development of the agribusiness sector in two complementary areas: suitable financing instruments and business support services.

The project involves risk-sharing arrangements and provision of quasi-seed capital with participating banks to address agribusinesses' inadequate collateral and often poor financial prospects. In addition, the project provides tailored business support services to these agribusinesses on a cost-sharing basis. It works closely with partner banks' credit officers to instill knowledge on agribusiness assessment and lending. The project now has four participating banks—ANZ, Bank South Pacific, National Bank of Samoa, and Samoa Commercial Bank.

To date, 10 businesses have been approved for financing. Agribusiness sectors supported include cocoa (chocolate), coconut (virgin coconut oil, soap manufacturing), root crops (chip production), vegetable production, and poultry farming. In total, the banks have provided about $0.9 million in loans, using $0.3 million in cash collateral and $0.2 million in supplemental seed capital. Loan amounts from participating banks range from $30,000 to $220,000. The banks were able to extend loan terms for up to 7 years at 8.5%–9.5% per annum, lower than the current market rates of 13.0%–14.0% per annum.

The Samoa Agriculture Competitiveness Enhancement Project, a World Bank-supported project focusing on the smallholder agriculture and livestock sectors, is a potential partner with SABS, especially in the organization of smallholder primary production to supply raw materials to SABS agribusinesses.

Need for further reforms

The continuous decline of the agriculture sector in a slow growth environment reflects the need to investigate the binding constraints to its growth. The 2015 private sector assessment determined that barriers to agriculture sector development was one of the binding constraints to overall economic growth, but its scope did not extend to actually identifying these barriers. The 2016 review of the ASP—focused on reviewing the performance, relevance, and alignment of the plan—was also unable to identify specific barriers to agriculture sector development. However, it did highlight constraints in the sector, including financing, coherence in policy, data limitations, and productivity issues at the producer level.

Once the barriers to agricultural development have been examined in detail, and strategic options to overcome them have been assessed, government support delivered through the community and social development structure may need to be reconsidered. Partnerships with the private sector that can help promote agricultural production by advocating the establishment of supply chains with the rural population will also promote better utilization of available land.

The Ministry of Agriculture's inability to achieve its sector plan objectives requires it to review its operations and determine a structure that will be better suited to deliver its mandate (Government of Samoa 2016a). However, measured steps on account of the ministry's capacity constraints will likely lead to sustainable improvements in operations and improved contributions toward sector outputs.

Given that Samoa's farmers are the most vulnerable to climate change and variability, some consideration should also be given to farmers associations' calls for improved coordination with and support from the government. Coherence among policy, legal, regulatory, and planning frameworks is necessary (Atkinson and Fong 2016). This is despite views within the government that the farmers should change their mind-sets. Effective agricultural extension services have the potential to boost the sector's output substantially.

Lead authors: Shiu Raj Singh and Hayden Everett.

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Bridging the trade finance gap in the Pacific

Trade finance is virtually unknown in the Pacific. Vast distances, small economies, a preference to do business using cash, and traditional banking methods have all contributed to a trade finance shortage in the region. This means that local businesses don't get the support they need to conduct overseas trade.

Attitudes are gradually changing, though, both among businesses and banks.

The ADB Trade Finance team recently met with several local companies in Samoa, where the National Bank of Samoa and Samoa Commercial Bank in June joined the ADB Trade Finance Program (TFP). One of the businesses was Samoa Stationery and Books, a large retailer of imported furniture and household items established in 2008. Right now, to bring in goods, the firm must apply to its bank for a loan and use the proceeds to pay the exporter before the goods have even left the shelves of the exporter's warehouse.

This is disadvantageous in many ways.

First, the importer in Samoa must take out a loan in local currency at a high interest rate, usually above 10%. Second, it would normally have to tie up collateral, such as property, against that loan. Third, the upfront payment to the exporter poses a huge cash flow risk to the business. In the case of Samoa, it could be 2 to 3 months before the goods arrive. Fourth, there is the risk that the exporter does not deliver the purchased items even though it has already been paid, in which case the local business loses all. Finally, consumers also suffer, as the high costs of finance are passed on through retail prices. In Samoa, the prices of household items are double those found in many other countries in the world.

As a solution, TFP is now working with the local banks in Samoa to help them introduce products such as letters of credit. These would allow an importer to pay upon taking ownership of the purchased goods. Letters of credit can also come with a deferred payment period, which allows the importer to sell the goods and use the sales revenue to pay the exporter. This frees up much-needed working capital, enabling businesses to expand their operations. Furthermore, letters of credit are denominated in the currency in which the exporter expects payment, usually US dollars, which means a much lower interest rate. In Samoa, this could be as much as 5 percentage points lower than local currency rates.

Companies like Samoa Stationery and Books are enthusiastic about products such as letters of credit. Their features allow for the possibilities of expanding businesses, solving cash flow problems, and paying less interest.

Unfortunately, though, it is not that easy. Letters of credit are effectively guarantees that a bank will make a trade payment at a future date on behalf of its importing client. This is fine as long as the bank issuing the letter of credit is a known counterparty and has a decent credit rating. However, when that is not the case—especially in countries like Samoa, far removed from big financial markets—the result is that the transaction fails or it must be done in cash.

This is where ADB's TFP comes into play, by issuing its own guarantees in support of the guarantor banks. In other words, if a bank fails to make the payment, ADB will step in.

Since its establishment in 2004, the TFP has supported more than $24 billion in trade in 20 countries through over 13,000 transactions (and is currently supporting around 2,000 transactions annually). Of these transactions, around 80% are for small and medium-sized enterprises. The program is active throughout Asia, but is most active in Bangladesh, Pakistan, Viet Nam, Uzbekistan, and Sri Lanka. All together, the program works with more than 200 banks. The TFP supports a variety of goods, including commodities, capital equipment for manufacturing industries and the power sector, raw materials for industry, and consumer goods. The rationale for the TFP is to fill market gaps in trade finance. On a global scale, these gaps are estimated at around $1.9 trillion. These gaps result from issues such as country risk, bank risk, money laundering concerns, and weak company balance sheets.

An additional significant obstacle remains to bridging the trade finance gap in the Pacific—business volumes are too low for most global banks to justify establishing correspondent relationships with local banks there. Moreover, in the new regulatory environment following the 2008–2009 global financial and economic crisis, it costs global banks at least $20,000 to conduct anti-money-laundering and know-your-customer due diligence.

Apart from importing consumer goods and inputs to production, Pacific companies also need access to finance in order to export goods. The TFP's funded trade product, wherein ADB provides credit to local businesses through banks—with ADB assuming the bank risk only—could help. Providing loans denominated in foreign currency for trade finance also helps local banks to diversify their funding profiles, expand their treasury expertise, access a currency in which trade payments are made—typically with lower interest rates—and pave the way to engage with multilaterals and overseas banks.

Over 2016 and 2017, the TFP plans to roll out the same kind of support it has brought to Samoa to the Cook Islands, Fiji, the Republic of the Marshall Islands, Papua New Guinea, Timor-Leste, and Tonga, helping build up both local banks and businesses in these economies.

Lead author: Edward Faber.

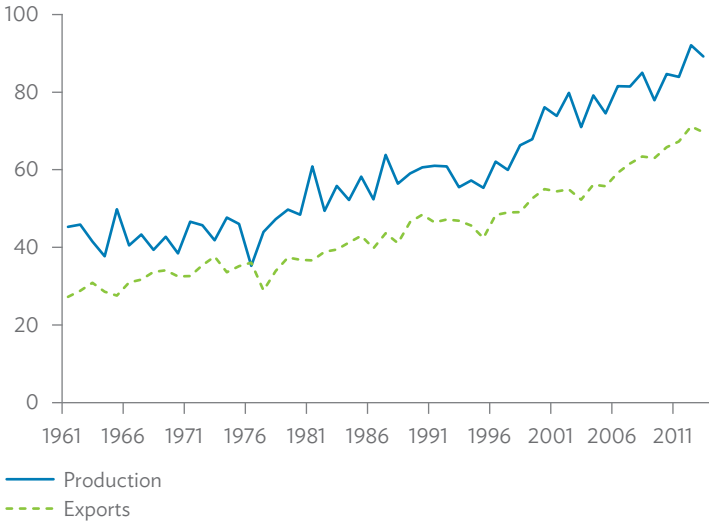
Moving from commodity to niche: Timor-Leste's coffee exports

Global trade and the growth of specialty coffee

Coffee provides a notable example of how de-commodification can create new opportunities for small-scale and niche producers. Production has almost doubled over the last 50 years and continues to grow while consumption in coffee-producing countries also increases (Figure 1). Production is concentrated in Brazil, Viet Nam, Colombia, and Indonesia, which together accounted for 68.6% of the global coffee harvest in the 2015/16 season (Figure 2). The major coffee-consuming markets are the European Union, the United States (US), Brazil, and Japan, which together accounted for 74.1% of global consumption in 2015 (Figure 3). In 2015/16, Timor-Leste accounted for an estimated 0.04% of global production.

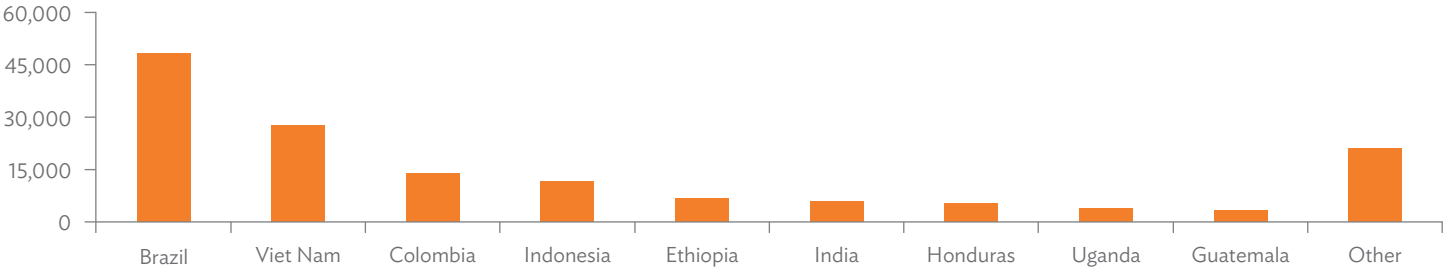
The last 40 years has seen a growing movement to improve the social and environmental sustainability of coffee production, and redefine it as a differentiated artisanal product (Figure 4). These changes have been underpinned by the development of comprehensive systems for measuring and describing quality. Chemical analyses have identified up to 800 different flavor compounds and 113 distinct flavors that can be present in brewed coffee. The common language to describe these attributes is summarized in the Specialty Coffee Association of America's coffee taster's flavor wheel (Figure 5), and is accompanied by a framework for analyzing quality that allows trained tasters to grade coffees on a 100-point quality scale.

Figure 1: Global Green Coffee Production and Exports
(million tons)



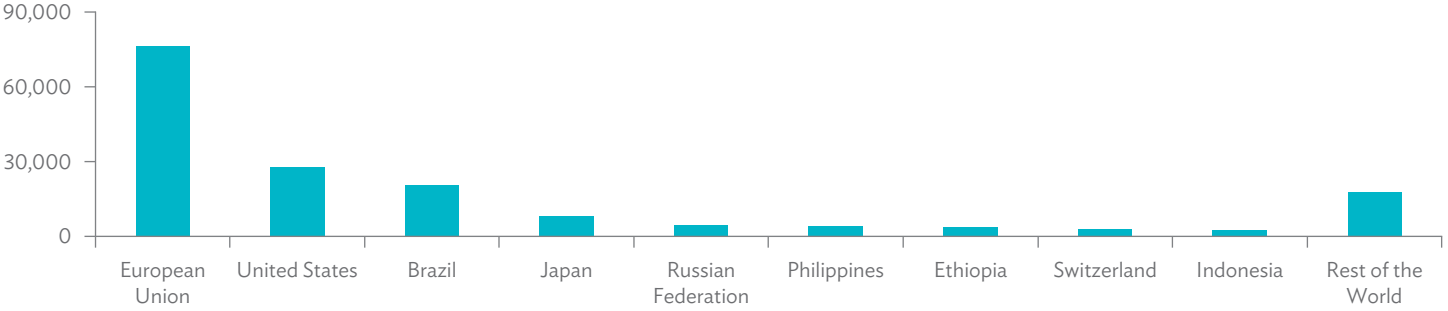
Source: Food and Agriculture Organization of the United Nations.

Figure 2: Coffee Production by Country, 2015/16 season
(number of 60-kilogram bags)



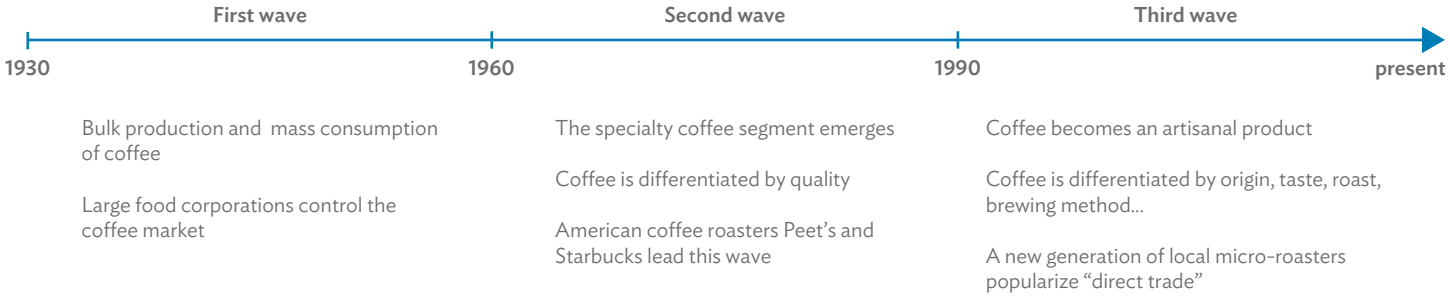
Source: International Coffee Organization.

Figure 3: Coffee Consumption by Country, 2015/16 season
(number of 60-kilogram bags)



Source: International Coffee Organization.

Figure 4: Evolution of the Coffee Industry



Source: Borella et al. 2015. *Smallholder Farmers in the Specialty Coffee Industry: Opportunities, Constraints and the Businesses that are Making it Possible.*

Specialty coffee, which is differentiated according to its quality or mode of service, is the fastest-growing segment in mature consumer markets such as Japan and the US. Although "specialty coffee" is a widely used term, the specialty classification for unroasted coffee is based on clearly defined quality standards. It is estimated that in 2012, specialty coffees accounted for approximately 10.0% of all US imports of unroasted coffee, while specialty retail sales (including prepared beverages) were valued at $26.4 billion, equivalent to 55.0% of the total market.

The recent growth of specialty coffee, often referred to as the "third wave," has also been characterized by changes in the business models for coffee trading and retailing. Industry analysis points to the important role played by relatively small specialty coffee roasters in educating consumers and building demand for higher-quality coffee. Some of these roasters have established more direct and long-term trading relationships with individual coffee producers. These relationships can increase the share of total value that goes to the coffee producer, strengthen the incentives for collaboration between the production and retail segments of the supply chain, and reduce both parties' exposure to price volatility.

Relationships between producers and roasters also provide the traceability needed to market coffee as a unique product from a specific farm or growing area. Recent analysis of a natural experiment in Ethiopia provides clear evidence of traceability's impact on value creation. In 2008, the Government of Ethiopia introduced reforms requiring some coffee producers to sell their coffee through a centralized exchange that was designed to conceal key identifying information about the coffees being sold. Analysis of sales data suggests that this loss of information reduced the price of coffees sold through the exchange by an average of 26%.

At the top end of the market, the winning coffees in professionally judged competitions, such as the Cup of Excellence®, can sell for more than 20 times the price of commodity-grade coffee. Although data from competition auctions is readily available, the transparency of the larger market for specialty-grade coffee remains limited. Figure 6 shows data on the purchases of individual lots of specialty coffee made by Counter Culture Coffee, a well-known specialty roaster in the US. In 2014, it purchased coffee for a weighted average price of $3.40 per pound, which represented a 66.0% premium over benchmark commodity prices. Analysis of this data provides useful insights into the broader specialty market: (i) improved quality is clearly associated with higher prices, reflecting a quality premium; (ii) small and micro lots of coffee generally sell for a higher price per unit, reflecting an additional scarcity premium; and (iii) long-term relationships between producers and roasters appear to create additional value that may be reflected in a loyalty premium.

While quality is the defining characteristic of specialty coffee, a number of certification systems have been developed to ensure social and environmental sustainability. Certification systems, e.g., Fairtrade and Organic, have become increasingly well known in consuming markets and the volume of certified production has increased steadily. Certification can help to improve the welfare of coffee producers, but as the coverage of certification schemes has expanded, they have become less meaningful as means of differentiating the production from a specific country or region. Formal certification appears to have little marginal value to producers in high-end specialty markets, but it is a pre-condition for supplying some major coffee buyers.

These broader trends in coffee production and consumption offer opportunities to Timor-Leste and the Pacific. Over time, the People's Republic of China (PRC) is likely to become one of the largest markets for coffee. Consumption in the PRC grew by an annual average of 16% during the last decade, but per capita consumption is less than 5% of the level seen in Hong Kong, China, and less than 3% of that in Japan. Demand for specialty coffee is also likely to grow strongly in Asia as consumers become richer and more discerning. A continuation of current trends would see increasing market opportunities for producers of high-quality coffee that can be differentiated according to species and variety, growing conditions, processing technique, social and environmental sustainability, flavor profile, and methods of preparation and sale. Coffee producers in Timor-Leste, as well as the greater Pacific, can benefit from these trends if they can meet the requirements of increasingly sophisticated markets and consumers.

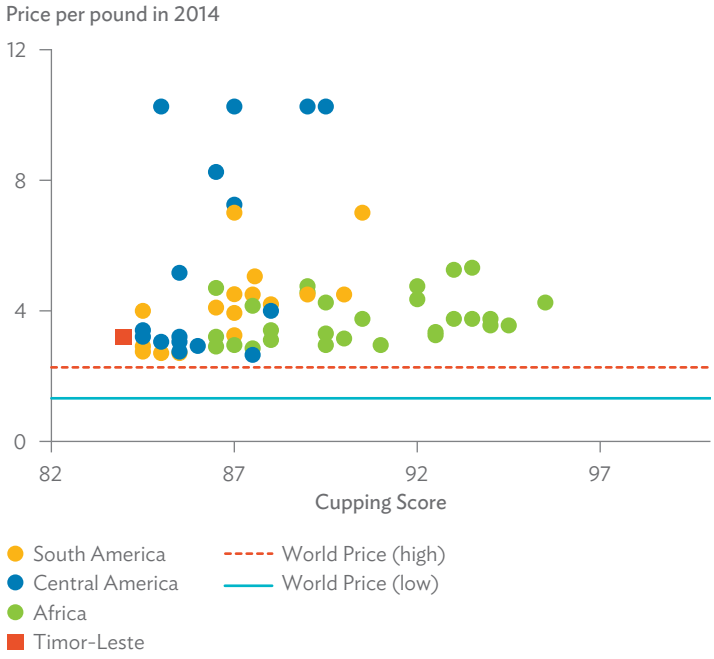
Coffee production in Timor-Leste

Coffee is Timor-Leste's largest non-oil export and is grown by around 27.5% of Timorese households. However, more than half of the planted area reportedly consists of old, unproductive trees. As a result, yields are low, only 20%–30% of the average yields

Figure 5: Coffee Flavor Wheel

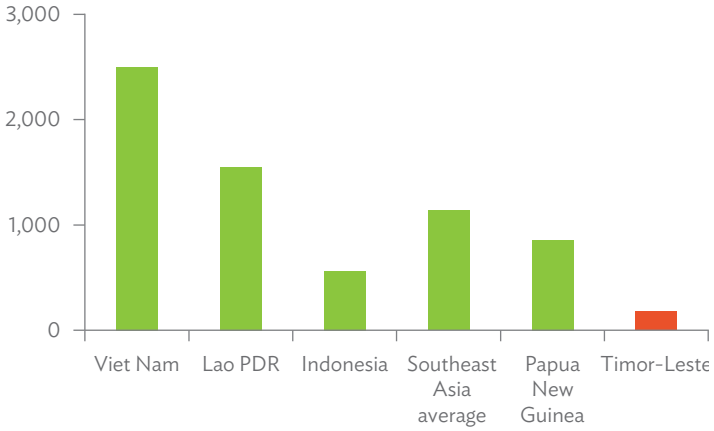
Source: Specialty Coffee Association of America.

Figure 6: Coffee Purchase Data for a Leading Specialty Coffee Roaster



Sources: Counter Culture Coffee; World Bank Pink Sheets.

Figure 7: Average yields of green coffee
(kilograms per hectare)



Lao PDR = Lao People's Democratic Republic.
Source: FAO Stat.

achieved in Indonesia and Papua New Guinea (Figure 7). Despite these challenges, Timor-Leste has a unique place in the history of global coffee production that could be leveraged to differentiate Timorese coffees.

A long history. Coffee was first planted in Portuguese Timor in 1815. Production by smallholders increased rapidly in the following years and it replaced sandalwood as the colony's main export in the 1860s. The first coffees to be planted in Timor-Leste were Robusta (*Coffea canephora*) and the Typica and Bourbon varieties of Arabica (*Coffea arabica*). In 1917, a natural hybrid of the two species was discovered in a plantation in the Ermera district of Timor-Leste. The "Hibrido de Timor" (HDT) combined many of the best characteristics of the two species, and has been used to breed new varieties now grown around the world. As the birthplace of HDT, Timor-Leste has a special status in the modern history of coffee production and remains home to a distinctive and interesting variety that can produce very high-quality coffee.

Decline and redevelopment. From 1975–1993, coffee trading and export was consolidated into a private monopoly with close links to the Indonesian military. The prices paid to farmers were extremely low and exports were rerouted to bulk commodity markets in Indonesia. Low prices, minimal investment, and weak incentives for quality control led to a large decline in production and a loss of farming skills. The end of the monopoly trading arrangements in 1993 led to an immediate increase in the prices paid to coffee farmers and marked the beginning of a process to rebuild the industry.

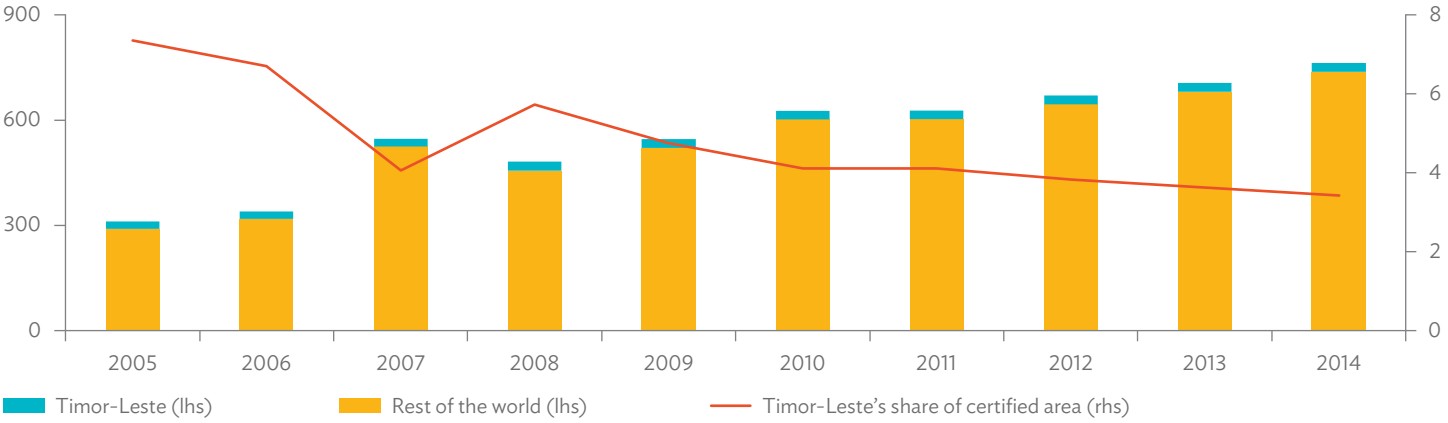
Replanting senile trees and implementing good agricultural practices can triple the yield per unit area for a typical farming household. However, weak or missing markets for land, access to finance, and farmer support services means that it can be difficult for smallholders to implement these programs without external support. At the same time, competition among coffee traders and exporters often undermines the incentives for these businesses to use their own resources to finance farm rehabilitation.

A number of development partners have filled this gap by providing grants to programs that help farmers to increase production. If successful, these programs can increase households' net income from coffee production by a factor of 2.7. However, since improved farm management requires increased labor inputs, the estimated income per "family labor day" remains at an average of $6.50 per day of work. This highlights the importance of achieving higher prices for Timorese coffee in international markets, since this is one of the clearest ways of increasing the income that coffee producers earn for each "family labor day."

Coffee exporters have used three broad strategies to achieve price premiums: certification, quality improvement, and branding. The lack of attention given to coffee production during 1975–1993 meant that production was already de facto organic and certification could be achieved relatively easily. However, as global production of certified organic coffee has increased, Timor-Leste's share of this market has declined (Figure 8).

Efforts to improve quality have been guided by the various business models for processing fresh coffee cherries into an intermediate stage of dried coffee parchment, and a final stage of green beans that are ready for export or roasting. Some exporters have sought to improve quality control by centralizing the processing of coffee cherries in a few large facilities thus minimizing farmers' role. Other large exporters have established relationships with traders and agents who serve as intermediaries. These exporters can provide price incentives and training to their agents, but must contend with the lack of direct links to farmers and the resulting loss of

Figure 8: Area certified for organic production
(thousand hectares and %)



lhs = left-hand scale, rhs = right-hand scale.
Source: Research Institute of Organic Agriculture (FiBL).

traceability. A number of smaller exporters have achieved a high level of traceability by buying coffee parchment from specific farmer groups. These businesses often provide a combination of training and price incentives to farmers to encourage quality improvement.

There has been some progress in building recognition of Timorese coffee in international markets. Starbucks has sourced coffee from Timor-Leste since 1996, and has marketed coffees from Timor-Leste to consumers since 2005. Specialty buyers in Australia; the US; the Republic of Korea; Taipei,China; and Hong Kong, China are now also buying Timorese coffee. However, this process of brand development is at a very early stage, and Timorese coffees are generally not marketed in a way that fully leverages their distinguishing features.

Future opportunities. Timor-Leste has a clear opportunity to increase total coffee production through farm rehabilitation programs, and to develop a reputation in international markets as a source of unique and high-quality coffees. Concerted and well-targeted efforts will be needed to realize this potential. Timor-Leste's coffee exporters are already pursuing strategies to improve quality, increase traceability, and develop a presence in new markets. However, these efforts are unlikely to be sufficient if they are pursued in isolation.

Competition within the supply chain helps drive efficiency and innovation, and ensures that farmers receive fair prices. However, many of the actions that are needed to develop the coffee sector also require increased coordination and cooperation across the supply chain. In some cases, the activities of members of the supply chain are enabled by public goods that are specific to the coffee industry. The provision of extension services to smallholder farmers has some aspects of a public good, and is likely below optimal levels without some form of coordinated action. Other examples of industry-specific public goods include applied research to develop technologies for use by the whole industry, international marketing of Timorese coffee markets, and definition of industry-wide quality standards.

Government provision is one means of solving the collective action problems that lead to the under-provision of public goods in a free market. However, in the case of an export industry such as coffee, the private sector is typically the main user of such goods and therefore has a role to play in their provision. Trade associations have played an important role in the growth of specialty coffee in both producing and consuming countries, and can provide a useful mechanism for solving collective action problems when public sector capacity is limited. In Timor-Leste's case, a trade association could provide an important mechanism for designing and implementing programs to address specific areas of weakness that constrain the broader development of the industry.

Numerous assessments by independent experts have highlighted the lack of coordination as a constraint to the development of the coffee sector in Timor-Leste. There had been little progress in addressing this gap until September 2016, when 20 private sector stakeholders representing all major segments of the coffee value chain in Timor-Leste met to develop plans for a new national coffee association. This group's vision is to form a voluntary association that can revitalize the coffee farm sector by becoming the source for industry standards, advocacy, media representation, and international brand development for Timorese coffee. Achieving this vision will not be easy, but a successful trade association could empower farmers and local businesses to upgrade the quality of their coffee and sell an increasing share of their production in specialty markets. Over time, this shift would help build international awareness of Timorese coffee, and develop the country's reputation as a source of unique and highly prized coffees.

Conclusion

For Timor-Leste and the rest of the Pacific, redirecting primary commodity exports to new niche markets can convert the natural disadvantages of producing on small and remote islands into selling points for consumers seeking unique products and experiences. However, accessing these markets will generally require changes in production, processing, and marketing to meet the requirements of a particular market niche.

This brief focused on coffee, where quality is rapidly becoming the defining factor for access to niche markets. In Timor-Leste's case, the competition between exporters pursuing different business models is likely to promote efficiency and drive innovation. However, competition at the export and intermediate stages of the supply chain can also exacerbate collective action problems in the industry and undermine coordination across the supply chain.

Trade associations can provide a means for the private sector to organize the provision of industry-specific public goods, to resolve the collective action problems that hinder development of their industry, and to partner with the government and other stakeholders. It is too early to say whether the new trade association that is being developed in Timor-Leste will succeed in its mission of developing the coffee sector, but the approach appears promising and may have useful applications in other sectors with similar characteristics, and in Pacific countries with a coffee industry such as Papua New Guinea.

Lead author: David Freedman.

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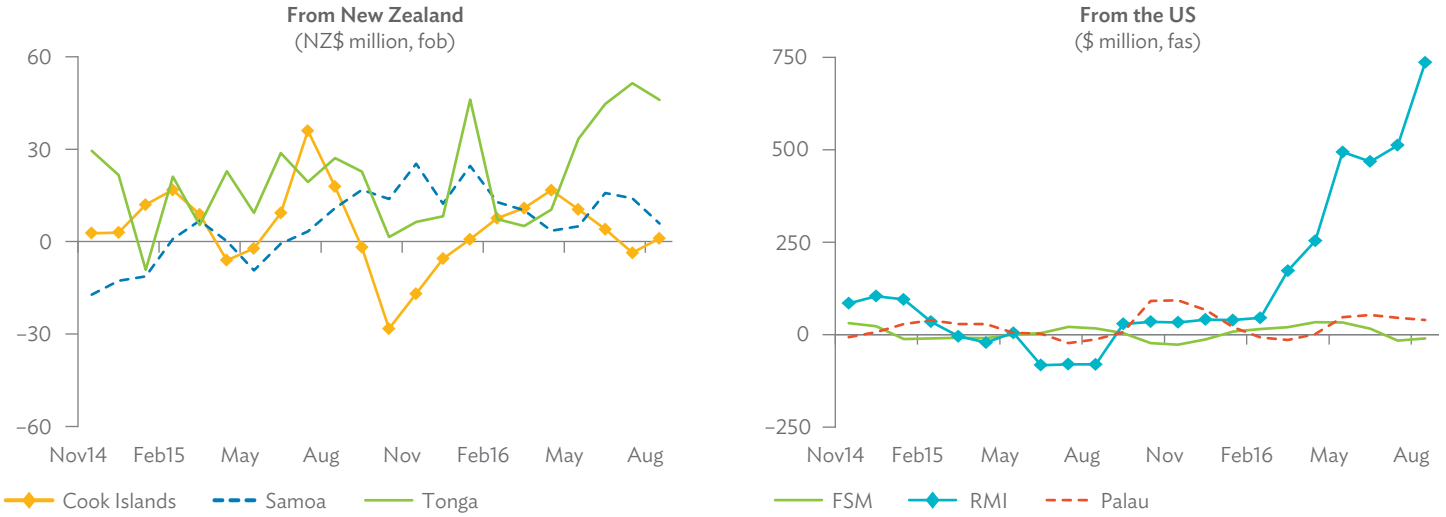
Nonfuel Merchandise Exports from Australia
(A$; y-o-y % change, 3-month m.a.)

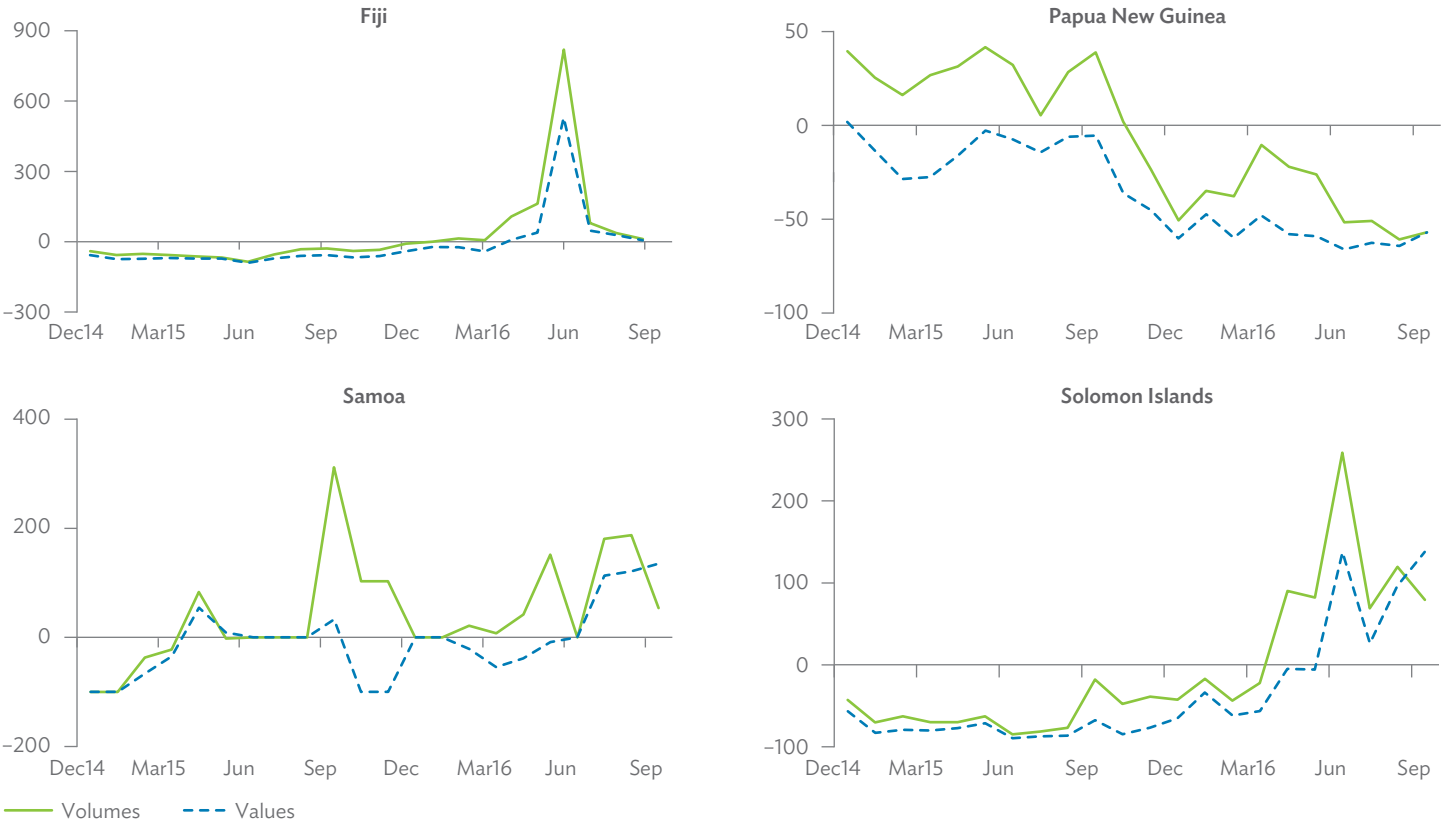
A$ = Australian dollars, lhs = left-hand scale, m.a. = moving average, rhs = right-hand scale, y-o-y = year-on-year.
Source: Australian Bureau of Statistics.

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



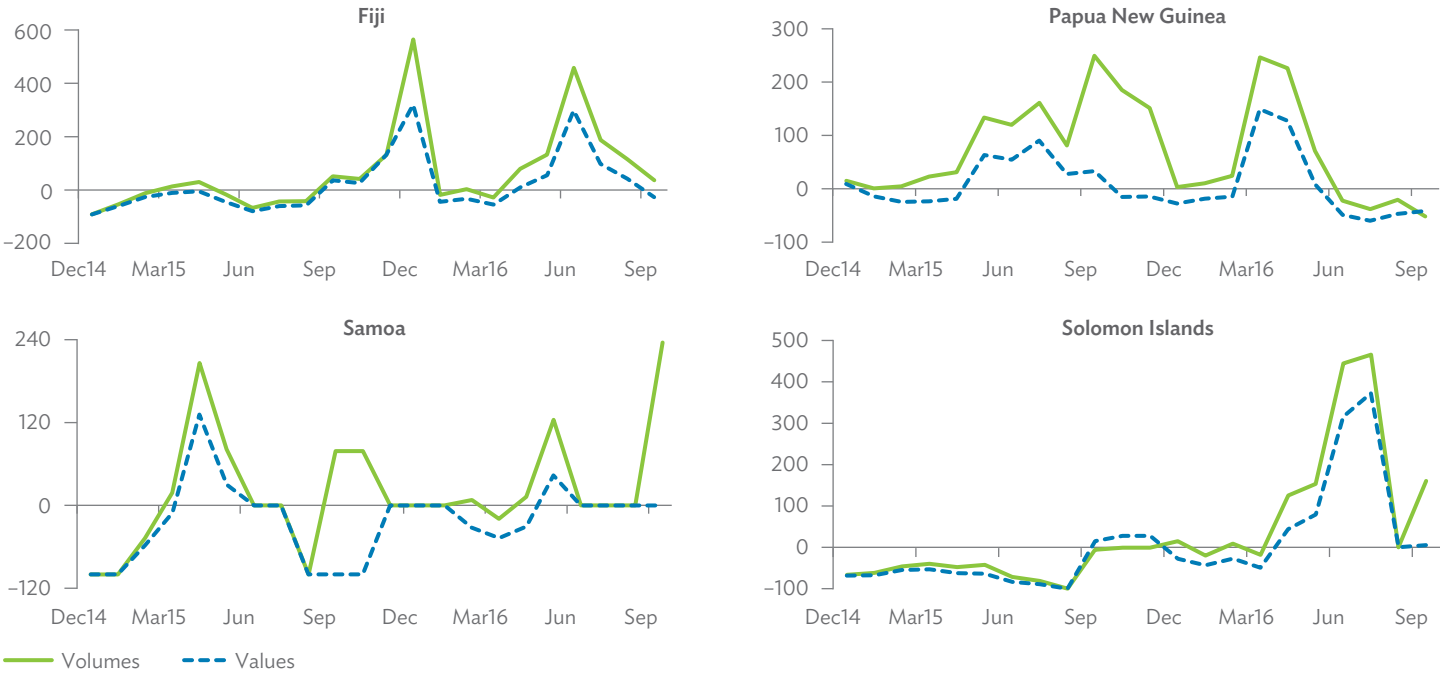
fas = free alongside, fob = free on board, FSM = Federated States of Micronesia, m.a. = moving average, NZ$ = New Zealand dollar, RMI = Republic of the Marshall Islands, US = United States, y-o-y = year on year.
Sources: Statistics New Zealand and US Census Bureau.

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



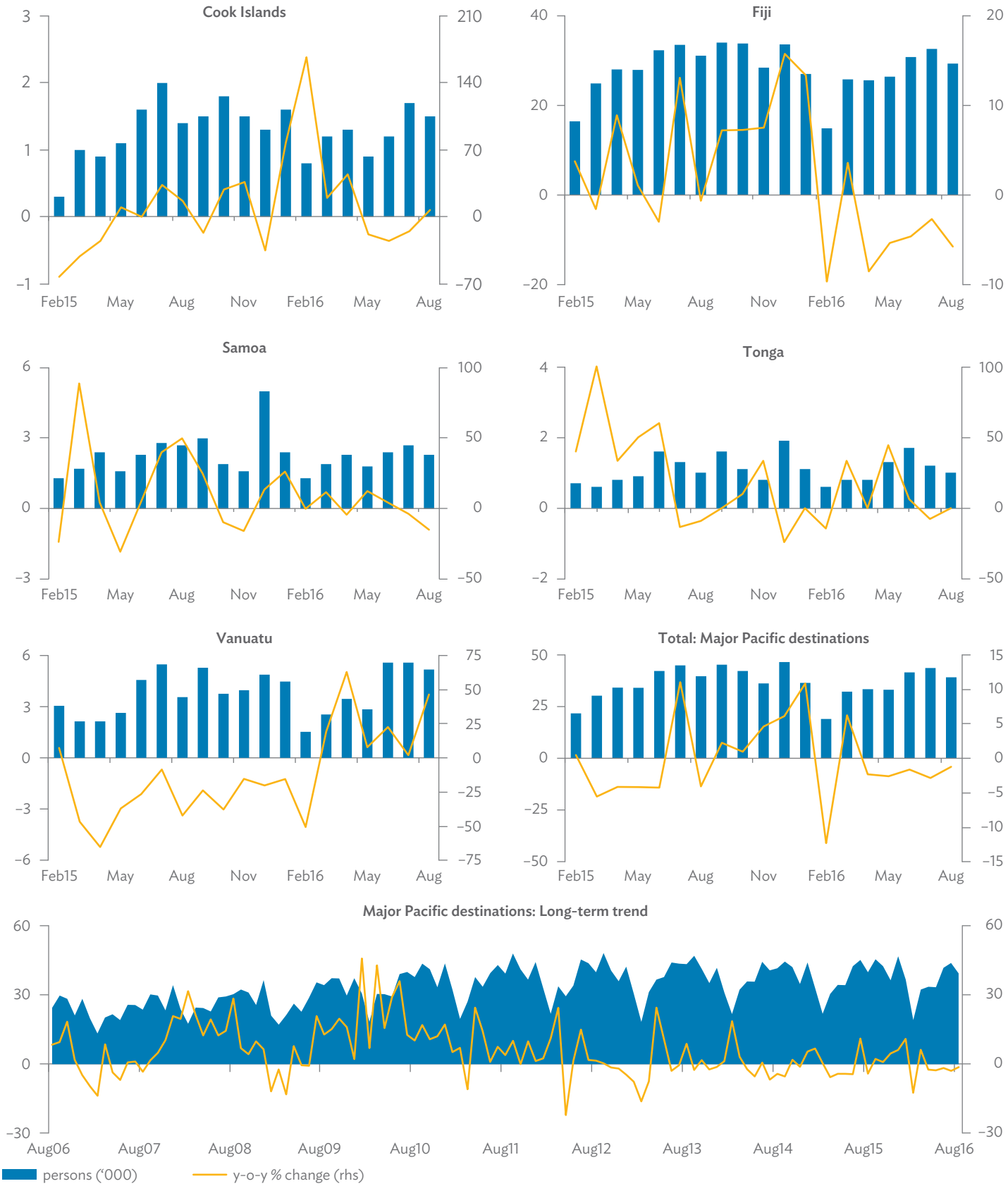
m.a. = moving average, y-o-y = year on year.
Source: International Enterprise Singapore.

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



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

Departures from Australia to the Pacific
(monthly)



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

Departures from New Zealand to the Pacific
(monthly)

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)		
	2015	2016p	2017p	2015	2016p	2017p	2015	2016p	2017p
Cook Islands	3.0	4.2	4.0	3.0	0.4	1.6	–4.4	2.3	–3.5
Fiji	3.6	2.0	3.6	1.4	5.0	3.5	–2.5	–1.6	–4.7
Kiribati	3.5	3.1	2.5	0.6	1.5	2.0	45.5	–12.9	–11.3
RMI	0.5	1.5	2.0	–2.2	–1.3	1.0	3.4	5.0	5.6
FSM	3.7	2.0	2.5	–1.1	–0.3	1.5	11.0	9.0	7.0
Nauru	–10.0	3.0	15.0	10.2	6.6	1.7	–5.7	–0.1	0.0
Palau	9.4	2.0	5.0	2.2	1.5	2.5	5.9	1.9	2.3
PNG	9.9	2.2	3.0	6.0	6.5	7.5	–3.2	–3.8	–2.2
Samoa	1.6	6.4	2.0	1.9	0.1	2.0	–3.9	–0.4	–3.5
Solomon Islands	2.9	2.7	2.5	–0.3	3.3	4.5	–2.2	–3.6	–3.9
Timor-Leste[a]	4.1	5.0	5.5	0.6	–0.6	1.2	–6.7	–10.9	–10.3
Tonga	3.4	3.1	2.6	–0.7	2.0	1.9	–0.2	–2.3	–1.5
Tuvalu	2.6	4.0	3.0	3.2	3.5	3.0	7.2	–2.7	–4.2
Vanuatu	–1.0	3.5	3.8	2.5	1.9	2.4	7.2	–10.6	–17.3

FSM = Federated States of Micronesia, GDP = gross domestic product, p = projection, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands.
[a] Timor-Leste GDP is exclusive of the offshore petroleum industry.
Sources: ADB. 2016. *Asian Development Outlook 2016 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

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