Pacific Economic Monitor

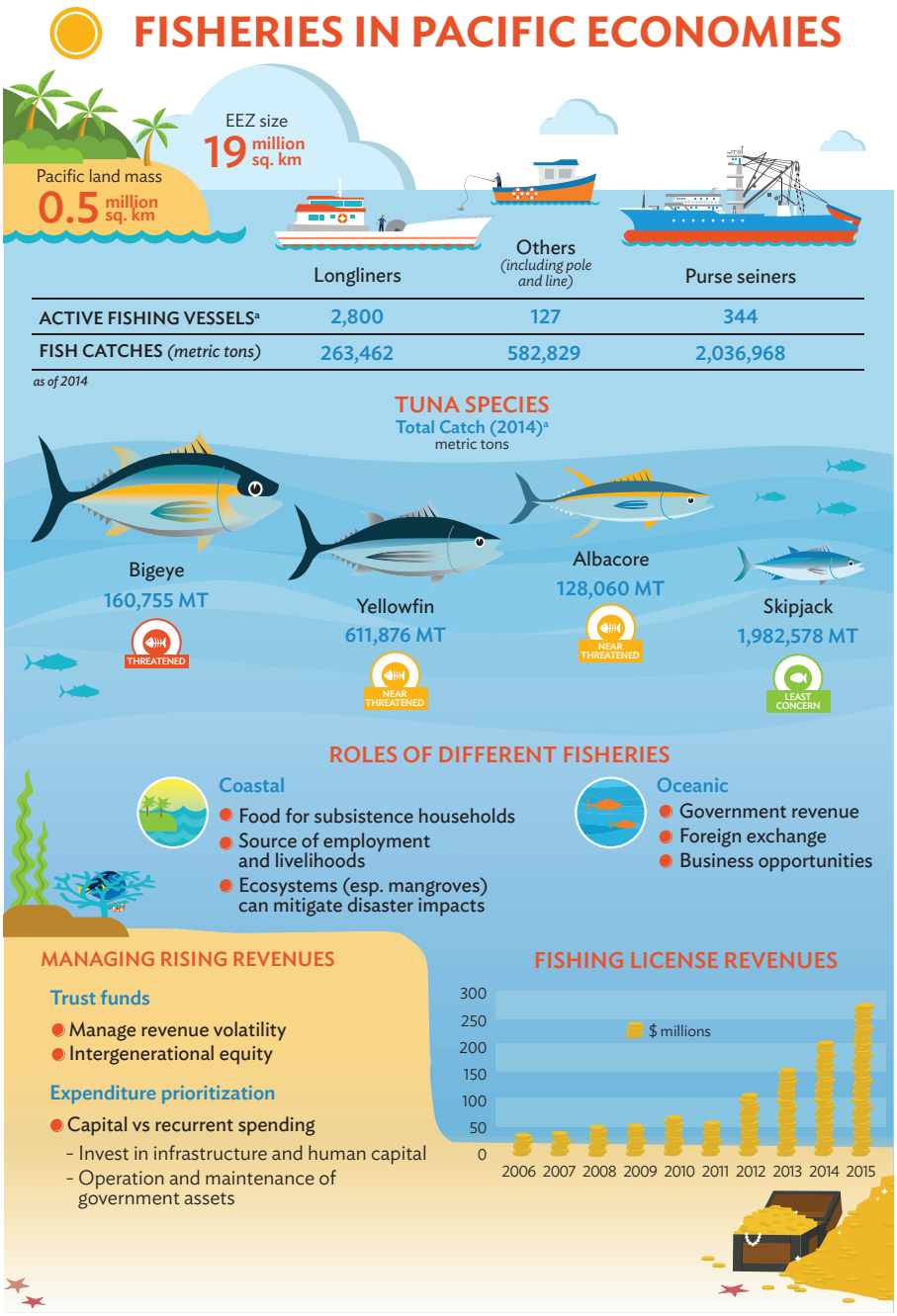
July 2016 www.adb.org/pacmonitor

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

Contents

Highlights

- **Weaker global outlook.** Global growth forecasts for 2016 have been lowered to 3.1%. Although prospects for the People's Republic of China have improved modestly, developments following the United Kingdom's decision to exit the European Union suggest that there are significant risks to the global economic outlook. Low prices for energy and nonfuel commodities are supporting a low-inflation environment globally.
- **Smaller Pacific economies support subregional growth.** Most Pacific economies are unlikely to be significantly affected by global uncertainty and growth is forecast at 3.9% for 2016. Prospects for smaller economies have improved slightly, reflecting stronger than expected performance in tourism, fisheries, and construction. In contrast, the outlook for Fiji is weaker due to the impact of Cyclone Winston.
- **Harnessing fisheries resources.** Fisheries are among the most important resources for smaller island economies and have been heavily exploited. Through regional cooperation, Pacific economies have had some success in fisheries conservation and generating increased revenues from the sale of fishing licenses under the vessel day scheme. Prudent management of fishing license revenues has involved strengthening fiscal buffers and deposits to trust funds.



EEZ = exclusive economic zone, MT = metric ton.
Notes: Number of vessels excludes coastal fleets of Japan, and fleets in domestic fisheries of Indonesia, the Philippines, and Viet Nam; while catches include the entire western and central Pacific area. Status of of tuna fisheries' sustainability based on assessments by the World Wildlife Fund. https://www.worldwildlife.org/species/tuna

[a] Western and Central Pacific Fisheries Commission. 2015. *Tuna Fishery Yearbook 2014*. Kolonia (October).

ISBN 978-92-9257-531-1 (Print), 978-92-9257-532-8 (e-ISBN)
Publication Stock No. RPS168257-2

Cataloging-In-Publication Data

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

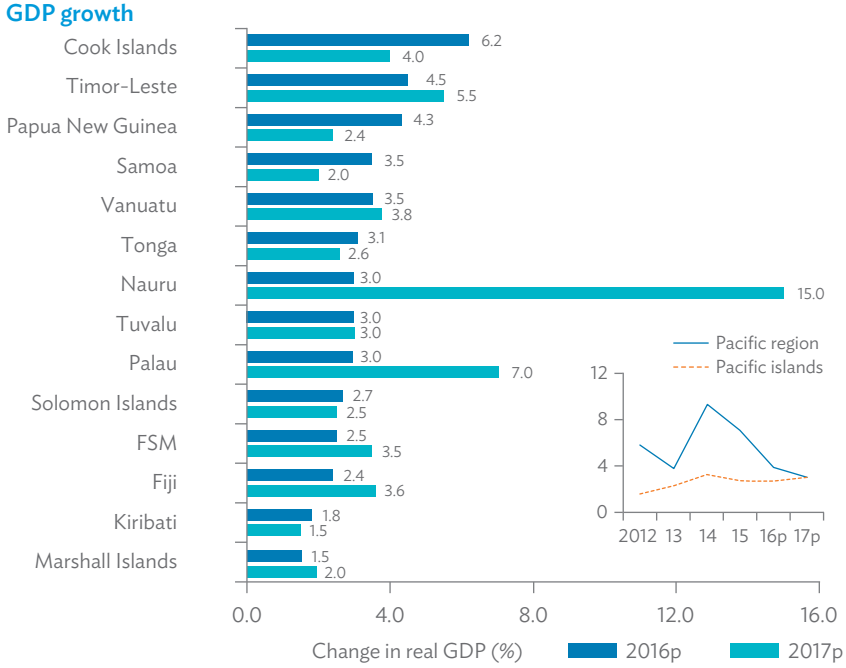
This edition of the *Monitor* was prepared by Yurendra Basnett, Robin Boumphrey, Prince Cruz, Caroline Currie, Christopher Edmonds (editor-in-chief), David Freedman, Malie Lototele, Rommel Rabanal, Bing Radoc, Roland Rajah, Shiu Raj Singh, Cara Tinio, and Laisiasa Tora of the Pacific Department. Publishing production assistance was provided by Cecil Caparas.

Abbreviations

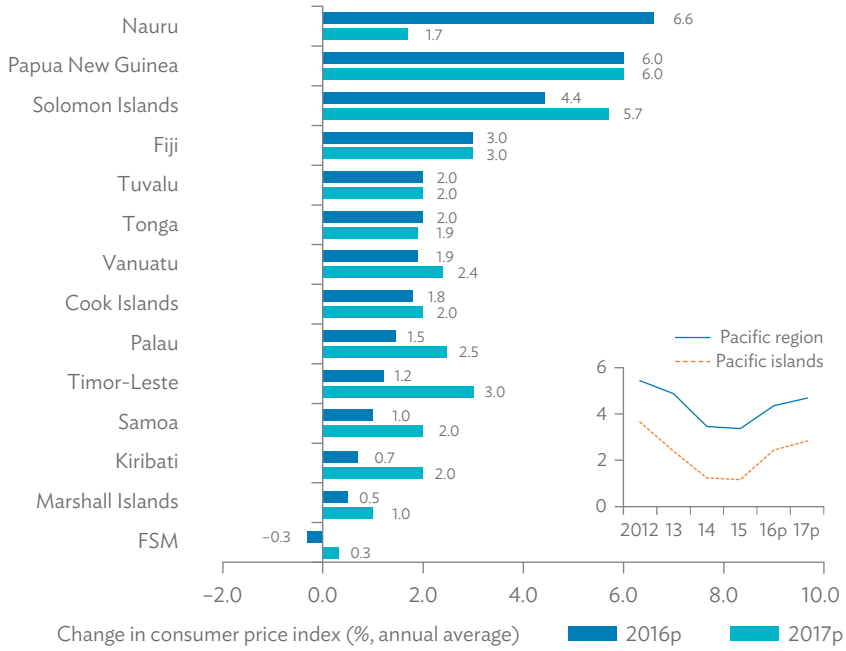
$	US dollar, unless otherwise stated
A$	Australian dollar
ADB	Asian Development Bank
F$	Fiji dollar
FSM	Federated States of Micronesia
FY	fiscal year
GDP	gross domestic product
K	PNG kina
lhs	left-hand scale
m.a.	moving average
NZ$	New Zealand dollar
PNG	Papua New Guinea
PRC	People's Republic of China
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.
Note: Projections are as of July 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 and the contribution of the United Nations.
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; 30 September in the Marshall Islands, the Federated States of Micronesia, and Palau; and 31 December elsewhere.

International and regional developments

Global growth stalling

- Forecasts for global growth in 2016 have been lowered to 3.1%—the same rate as last year—due to weakness in demand, international trade, and capital flows, as well as demographic trends and lackluster productivity growth. Prospects for the People's Republic of China (PRC) have improved modestly during the first half of the year, with adjustment toward services and consumption—away from investment and manufacturing—but the IMF warns that the situation in many leading economies could further reduce global growth. Other major risk factors include the repercussions of the United Kingdom's vote to exit the European Union, tighter credit conditions, major exchange rate fluctuations, and further weakness in commodity markets.

- Average oil prices fell by 43% in 2015, but have risen 11% in the first half of 2016. Amid an expected slowdown in demand for commodities, these increases are not expected to continue in the second half of 2016.

- Low prices for energy and nonfuel commodities are supporting a low-inflation environment globally. This leaves most monetary policy makers with room for further accommodative measures. However, divergence in monetary policy stance is evident among major central banks: In December 2015 the Federal Reserve hiked its target rate; in January 2016 the Bank of Japan introduced negative interest on some excess reserves; in March 2016 the European Central Bank reduced its policy rate to zero and expanded its asset purchase program; and the Bank of England has kept its policy rate steady.

- US growth is projected at 2.4% in 2016, the same rate as last year. A widening trade deficit associated with the stronger dollar slowed manufacturing growth but was offset by strengthening demand and improvements in the labor and housing markets. In the first quarter unemployment was 4.9%, down from 5.5% a year ago, while home prices were 5.6% higher.

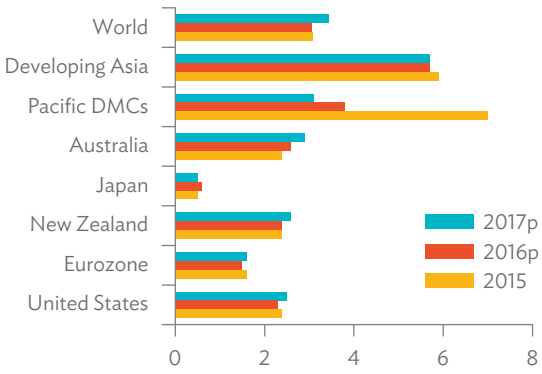
- Growth of 1.5% is expected in the Eurozone in 2016, compared with 1.6% in 2015. All Eurozone economies except Greece grew last year, and are expected to do so again this year albeit at slightly lower rates than predicted at the start of the year due to lower investment, weak corporate balance sheets, and persistent high unemployment.

- In Japan, growth is expected to remain at 0.5% in 2016, down by half from the consensus forecast at the start of the year, fueled by a fall in private consumption. Weaker demand from emerging market economies appears to be constraining growth, but low energy prices and the Bank of Japan's quantitative and qualitative easing measures are supporting growth. The planned hike in the consumption tax from 8% to 10% in 2017 is expected to slow domestic consumption and growth next year.

- Developing Asia is expected to grow by 5.7% in 2016, down only slightly from 5.9% in 2015. The largest economy, the PRC, is projected to continue to slow (6.5% this year compared with 6.9% in 2015). While manufacturing investment weakened amid corporate debt woes and the muted global outlook, higher wages and social transfers boosted domestic consumption.

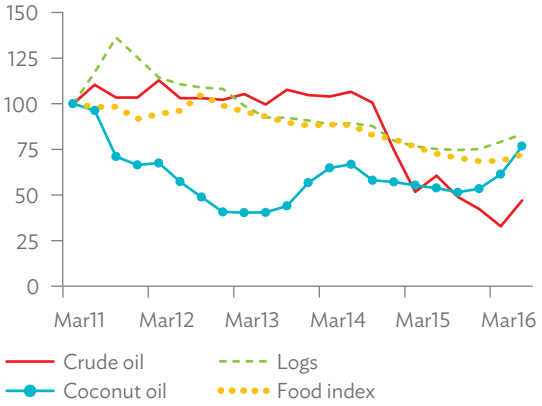
- The slowdown in the PRC is affecting commodity-exporting regional economies, including Australia and New Zealand. Economic growth in Australia is expected to remain at 2.5% in 2016, while New Zealand's growth is seen to slow to 2.0% in 2016. The Reserve Bank of Australia has maintained

GDP Growth
(%, annual)



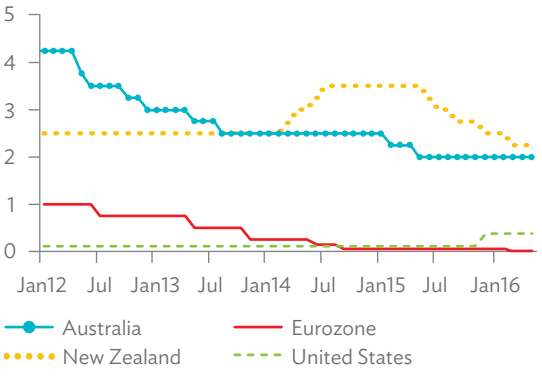
DMC = developing member country, GDP = gross domestic product, p = projection.
Notes: Developing Asia and Pacific DMCs as defined by ADB. Figures for 2015 are based on ADB estimates for developing Asia and Pacific DMCs.
Sources: ADB. 2016. *Asian Development Outlook 2016.* Manila; CEIC; Economist Intelligence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

Commodity Prices
(March 2011 = 100, quarterly)



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

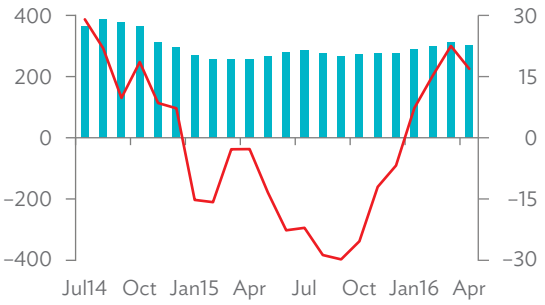
Key Interest Rates
(%, monthly)



Source: CEIC.

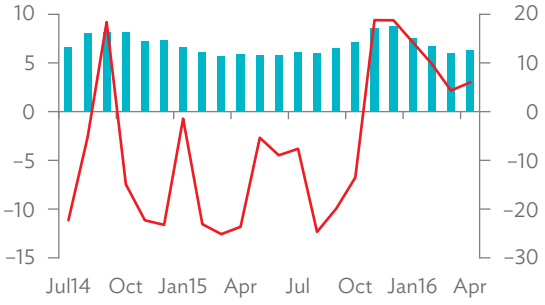
International and regional developments

Pacific Exports to Australia
(3-month m.a.)



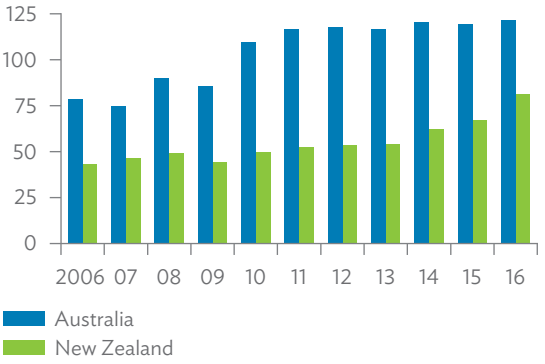
A$ = Australian dollar, m.a. = moving average, rhs = right-hand scale, y-o-y = year-on-year.
Source: Australian Bureau of Statistics.

Pacific Exports to New Zealand
(3-month m.a.)



m.a. = moving average, NZ$ = New Zealand dollar, rhs = right-hand scale, y-o-y = year-on-year.
Source: Statistics New Zealand.

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



Sources: Australian Bureau of Statistics and Statistics New Zealand.

Lead authors: Christopher Edmonds, Rommel Rabanal, Bing Radoc, and Cara Tinio.

interest rates steady at 2%, while the Reserve Bank of New Zealand has pursued gradual monetary policy easing, cutting its policy rate by 25 basis points beginning in June 2015.

Regional exports rebound in early 2016

- Exports from Pacific countries to Australia rose by 21.1% (y-o-y) in January–April 2016 on increased commodity exports from Papua New Guinea (PNG). Gold exports from PNG rose by 18.1% and crude oil by 40.0% in the first 4 months of the year along with improving international prices for these commodities. Pacific nonfuel imports from Australia (mostly of food and manufactured goods) declined by 3.0% (y-o-y) over the same period as imports by PNG continued to decline. Consequently, the Pacific's trade surplus with Australia between January and April 2016 was double that of a year earlier.

- Pacific export earnings from New Zealand increased by 3.8% (y-o-y) in January–April 2016 on the back of increased garment and tobacco exports from Fiji. Pacific nonfuel imports from New Zealand also increased, by 10.6% (y-o-y), during this period as Fiji and Samoa increased their imports of dairy products and machinery. Taken together, these developments caused the region's trade deficit with New Zealand to widen by 11.2%.

- The volume of fuel imported from Singapore held steady in January–April 2016 compared with a year earlier. Increased Imports by Fiji, Samoa, and Solomon Islands were offset by a drop in imports by PNG. A shift of source markets by Pacific fuel importers from Singapore to other fuel suppliers continued, with fuel imports from both Australia and New Zealand increasing in the first 4 months of the year.

Mixed news on Pacific tourism arrivals

- Tourist departures from New Zealand to major South Pacific destinations over the first 4 months of 2016 were up by 21.4% (y-o-y). About half of the increase was to Fiji, where tourism appears to have been largely unaffected by Cyclone Winston. Strong outbound tourism from New Zealand appears to be related to that economy's recent economic performance. The Cook Islands, Samoa, and Tonga also saw double-digit growth in the number of visitors from New Zealand. In contrast, Vanuatu saw substantially fewer tourist arrivals following the suspension of flights in January due to runway safety concerns at Port Vila's International Airport.

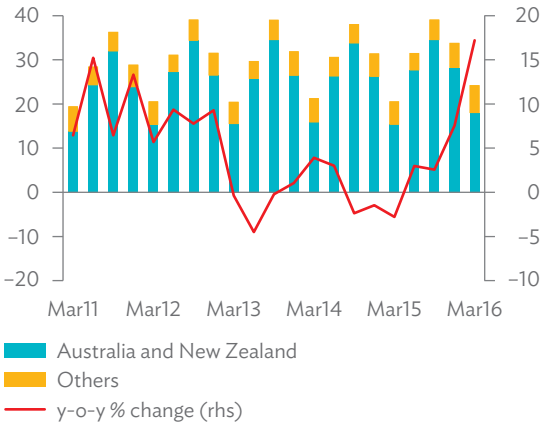
- Over the same period, Australian tourism to the South Pacific increased by only 1.7% (y-o-y) with little change in the number of visitors to Fiji. However, Australian tourism to the Cook Islands rose by almost 60% after declining in 2015. Departures increased to Samoa (by 8%) and to Tonga (3%). Growth in Australian tourism to these South Pacific destinations may be partly due to the diversion of flights away from Vanuatu amid ongoing runway repairs from February to April. Repairs were completed in early May, with Virgin Australia quickly resuming flights to Port Vila later that month.

- In the North Pacific, visitor arrivals in Palau dropped by 16.6% (y-o-y) over the first quarter of 2016, led by declines in tourist numbers from the PRC, Taipei,China, and the Republic of Korea, in part due to government restrictions on flights and in part to problems with aircraft owned by one of the major tour operators. Only visitor arrivals from Japan increased in the first quarter.

Cook Islands

- In FY2015 (ended 30 June), the economy grew by 0.7% (y-o-y)—rather than contracting by 0.5% as indicated in earlier estimates. Growth was driven by the construction and restaurant sectors, which offset a reduction in tourist arrivals.
- Growth accelerated to an estimated 6.2% in FY2016, driven by an unexpected 8.2% surge in tourist arrivals (and reflects updates to national accounts). The launch of a new Jetstar Airways service between Auckland and Rarotonga in March 2016 helped boost arrivals.
- Inflation slowed to 1.8% (y-o-y) in FY2016. International commodity price trends and the strong New Zealand dollar kept import prices low.
- Growth is forecast at 4.0% in FY2017 supported by investment and tourism, including a new Virgin Australia Auckland–Rarotonga nonstop service starting in June. Inflation is projected at 2.0% in FY2017 as international commodity price movements are seen to remain steady.
- The current account recorded a surplus equivalent to 37.3% of GDP in FY2016. This is projected to widen to 41.3% of GDP in FY2017 on higher tourism earnings and fish exports.
- The government is considering changes to the licensing of longline yellowfin and bigeye tuna vessels to promote the sustainability of harvests. It is also drafting legislation to establish the Cook Islands Sovereign Wealth Fund, into which earnings from natural resource exploitation will be invested for the benefit of future generations.

Visitor Arrivals, by Source
('000, quarterly)



y-o-y = year-on-year.
Source: Cook Islands Ministry of Finance and Economic Management.

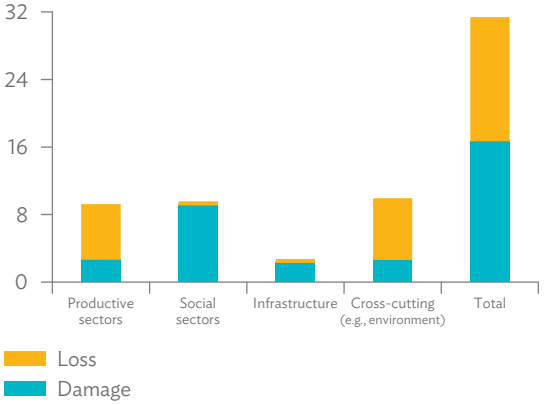
Lead author: Malie Lototele.

Fiji

Recent developments

- In February 2016, Cyclone Winston hit Fiji, causing estimated damage and loss equivalent to 31% of GDP. The agriculture sector was hard hit by the cyclone, which destroyed crops across the north and west of the country. The sector was also badly hit by flooding in April caused by Cyclone Zena. Sugar production, a mainstay of Fiji agriculture, is projected to be 31% lower this year (153,000 metric tons) due to an El Niño-induced drought, which led to poor planting conditions in 2015, and damage caused by the cyclones. Offsetting the downturn to some extent has been a rise in international sugar prices (by around 20% since the beginning of 2016) stemming from falls in global output.
- The tourism industry was largely unaffected by the cyclone, with visitor arrivals up by 10.2% (y-o-y) in the first quarter of 2016. Arrivals from Australia and New Zealand—the two largest source markets—increased by 6.0% and 29.4%, respectively. Tourist arrivals from the People's Republic of China (PRC) increased by 41.4%, albeit from a low base.
- Gold production increased by 7.9% in the year to March 2016. This was largely due to the Vatakoula Gold Mine working at full production capacity. Gold currently accounts for about 9% of Fiji's total exports (excluding re-exports).

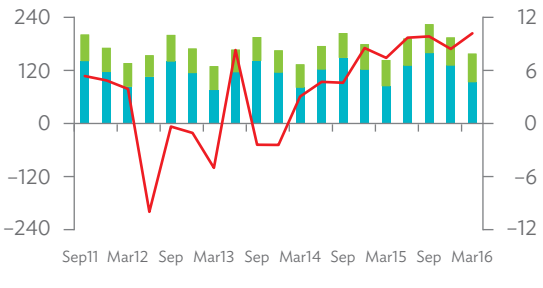
Cyclone Winston Damage and Loss Estimates
(% of GDP)



Source: Fiji National Disaster Management Office Post-Disaster Needs Assessment.

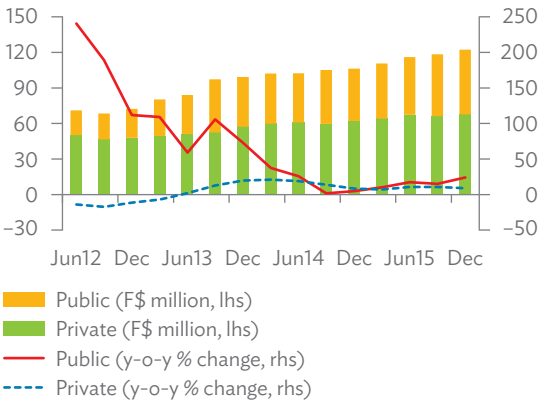
Fiji

Visitor Arrivals, by Source Country (quarterly)



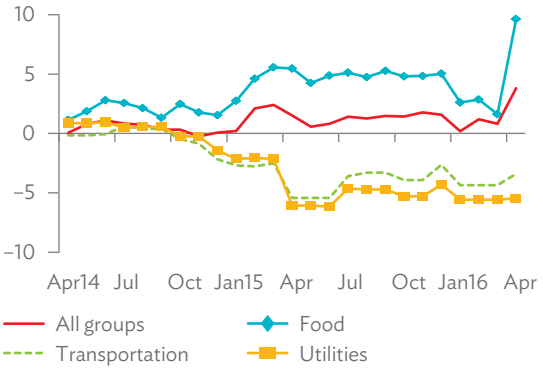
lhs = left-hand scale, rhs = right-hand scale, y-o-y = year-on-year.
Source: Fiji Bureau of Statistics.

Value of Construction Works in Place (quarterly)



F$ = Fiji dollar, lhs = left-hand scale, rhs = right-hand scale, y-o-y = year-on-year.
Source: Fiji Bureau of Statistics.

Consumer Price Index, by Commodity Group (y-o-y % change, monthly)



y-o-y = year-on-year.
Source: Fiji Bureau of Statistics.

Lead author: Caroline Currie.

- Despite the impact of the cyclones, several indicators show the economy growing in the first quarter of 2016. New lending for consumption rose by 5.7%, underpinned by a reduction in value-added tax (from 15% to 9%), release of around $133 million of Fiji National Provident Fund members' savings to assist recovery efforts, and expanded social protection measures. New lending for investment slowed in the same period as businesses took stock of damage and loss.
- The low oil price has seen average annual inflation moderate to 2.0% in 2015. Potential upward pressures on inflation from higher domestic food prices and increasing imports will be tempered by the country's strong foreign reserves position—the equivalent of 6 months of retained import cover.
- With the Reserve Bank of Fiji meeting its foreign reserves and inflation targets, the policy interest rate is expected to remain accommodative, at 0.5%.

Outlook

- The government changed its financial year from a calendar year to one that begins on 1 August. The FY2017 budget was introduced on 22 June 2016.
- The Fiji government forecast the economy would grow by 3.8% in 2016, but this was revised downward to 2.4% following Cyclone Winston. Growth is expected to rebound to 3.6% in 2017 as the recovery and rehabilitation of infrastructure, homes, and livelihoods gets under way.
- During the transition period between the old and new fiscal years (ending July 2016) the expected budget deficit is estimated at the equivalent of 1.6% of GDP. Cyclone Winston necessitated reorientation of funds from existing projects and programs to priority relief and recovery expenditures.
- The fiscal deficit is projected to increase to the equivalent of 4.7% of GDP in the coming fiscal year with higher expenditure to fund the recovery. Downside risks include the possibility of a late cyclone (not unusual in an El Niño year), moderating growth in Australia and New Zealand, and further delays in planned sales of government assets.
- Fiji's long-term sovereign credit rating was affirmed at B+ by Standard & Poor's in April. This reflects the view that the effects of Cyclone Winston will likely be temporary and that the economic outlook remains stable.
- There is little upward pressure on prices. For the moment, the expectation is that annual inflation will be around 3.0% in 2016 and 2017.

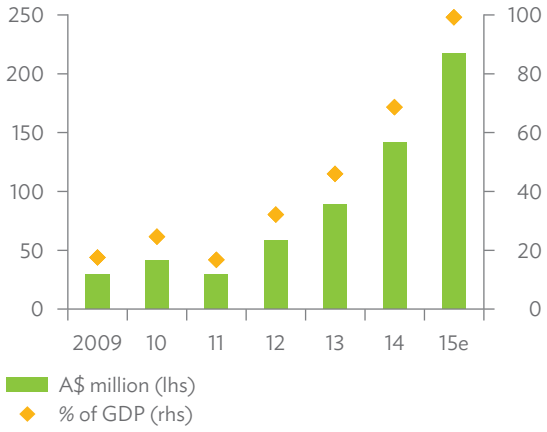
Key issues

- A challenge for the government will be to sustain the growth momentum in a tightening fiscal environment. Cyclone Winston has demonstrated the need for government to look more closely at how the country can build the fiscal buffers needed to deal with future disasters. Social protection programs have helped the poorest, and government has committed to helping rebuild the homes and livelihoods of people affected by the cyclone. Still, these have come at a cost to the economy, with planned expenditure being diverted to meet urgent relief and recovery needs.
- Cyclone Winston severely affected the sugar sector, resulting in substantial losses. In 2017, removal of the European Union sugar quota is also expected to have an adverse impact on the industry. Opening alternative markets will be crucial to help mitigate any revenue loss, but will require improved production efficiencies.

Kiribati

- Following the March elections, the new government presented a balanced budget to Parliament in May. It is committed to using its strong revenue base (particularly fisheries revenue, which grew at an average of 54.7% between 2012 and 2015) to improve services for the poorest and outer island communities.
- The current account surplus widened from the equivalent of 44.7% of GDP in 2014 to 77.2% in 2015. The balance improved largely due to strong fisheries license revenues under the vessel day scheme. These revenues (equivalent to 99% of GDP in 2015) and lower oil prices more than offset increased construction-related imports.
- Growth is expected to moderate to 1.8% in 2016 (from 3.0% in 2015), following the completion of major projects financed by development partners and effects of the waning El Niño on fishing activity. In 2017, growth is seen to fall to 1.5% despite continuing strong fisheries revenue. Downside risks to the outlook include shocks related to climate change and commodity price shocks (given Kiribati's high reliance on imports).
- Inflation is forecast at 0.7% in 2016 due to prevailing low global commodity prices. It will likely remain modest at 2.0% in 2017 as commodity prices rebound.
- Rising expenditure requirements related to climate change adaptation put pressure on the government's efforts to achieve fiscal sustainability. The government acknowledges that it needs to strike a balance between using higher fishing revenues for present needs and saving some for the future.

Fishing License Revenues
(annual)



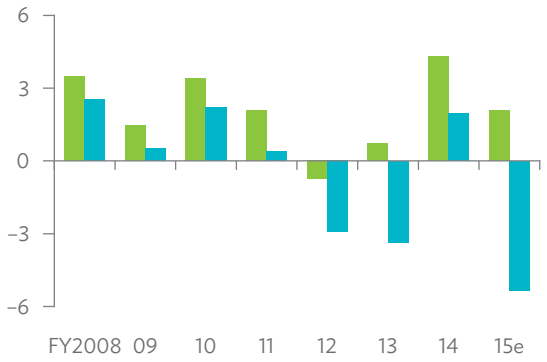
A$ = Australian dollars, lhs = left-hand scale, p = projection, rhs = right-hand scale.
Sources: Republic of Kiribati Ministry of Finance and Economic Development and Ministry of Fisheries and Marine Resource Development. *Fishing License Revenues 2015 Report*; and ADB estimates.

Lead author: Lai Tora.

Marshall Islands

- Imports to the Republic of the Marshall Islands (RMI) from the US—the second largest source of imports—spiked, rising by 452.9% (y-o-y) in the 7 months of FY2016 (ends 30 September). Nonfood imports increased sharply (by 609.4%, with mineral fuels accounting for almost two-thirds of the nonfood imports). Increasing ship refueling may be driving this rise.
- Growth in the RMI is projected to rise to 1.5% in FY2016 and 2.0% in FY2017 (up from a revised 0.5% growth estimate in FY2015). Stimulus from resumed infrastructure investments supported by US Compact and other development partner grants, as well as increased public spending from higher fishing license revenues, are seen to drive this expansion. However, the inflation forecast is revised downward to 0.5% in FY2016 and 1.0% in FY2017, as low international food and fuel prices persist.
- Fishing license revenues have bolstered the RMI's fiscal resources in recent years. As a share of total current revenues, license revenues have grown from 5.0% in FY2006 to an estimated 30.5% in FY2015. This heightens the need for prudent fiscal management, as the RMI is faced with rising subsidies to state-owned enterprises (SOE), amendments to the SOE Act that create risk of political intervention in SOE management, and continued vulnerability to disasters.

Fiscal Balance
(% of GDP, annual)

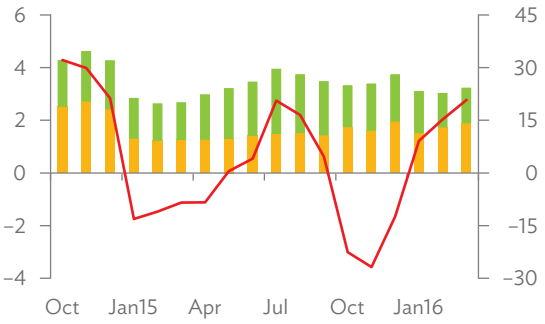


e = estimate, FY = fiscal year.
Source: Graduate School USA Pacific Islands Training Initiative.

Lead author: Cara Tinio.

Micronesia, Federated States of

Imports from the US
(3-month m.a.)



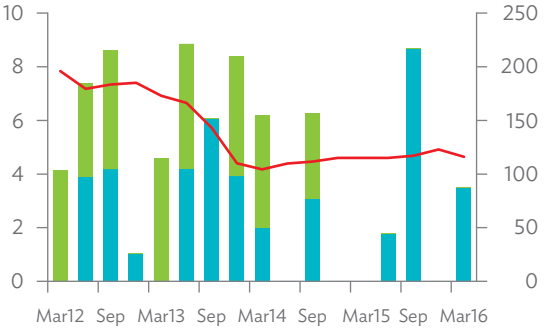
lhs = left-hand scale, m.a. = moving average, rhs = right-hand scale, y-o-y = year-on-year.
Source: US Census Bureau.

- In the first half of FY2016 (ends 30 September), total imports to the FSM from the US—the second largest source market—rose 0.4% mainly due to increases in beverage and tobacco imports, which exceeded a decline in food and live animal imports. During the period, food and live animals accounted for 36% of all imports.
- Following low growth (1.4%) in GDP in FY2015 (largely due to a series of typhoons), growth is forecast at 2.5% for FY2016 and 3.5% for FY2017. Infrastructure spending through US Compact grants is seen to drive stronger growth. Spending will focus on education facilities (62%), government buildings (25%), telecommunications (12%), and air transportation (1%), in accord with the FSM Infrastructure Development Plan FY2016–FY2025.
- Declining domestic prices are seen to persist, and deflation is expected at 0.3% in FY2016 (from 1.1% deflation in FY2015). In FY2017, inflation could reach 0.3%, due to price pressure from construction spending and $200,000 in additional spending under the Disaster Relief Fund aimed at mitigating the effects of a persistent drought.
- In FY2015, fishing license fees contributed to 65% of government revenues excluding grants. This is seen to climb to 74% in FY2016, which highlights the need for the sustainable management of the FSM's fisheries. At the latest regular session meeting of the Western and Central Pacific Fisheries Commission, FSM authorities advocated the adoption of stronger measures to enforce the conservation and management of fisheries. Measures suggested seek to reduce mortality of juvenile bigeye tuna and improve the safety of fisheries observers on foreign fishing vessels.

Lead author: Bing Radoc.

Nauru

Phosphate Exports to Australia and New Zealand
(quarterly)



$ = US dollar, lhs = left-hand scale, rhs = right-hand scale.
Sources: Australian Bureau of Statistics, Statistics New Zealand, and World Bank Commodity Price Data (Pink Sheets).

- Preliminary estimates suggest the FY2016 (ended 30 June) budget deficit was equivalent to 4.0% of GDP. A series of supplementary budgets increased total expenditure by 14.4% to fund higher payroll spending, repair the mooring system, and finance community housing and overseas medical services. The FY2017 budget targets a balanced budget. It projects domestic revenue to remain around current levels as revenues from the Regional Processing Centre and fishing licenses plateau. The government has introduced new taxes on businesses, including a turnover tax for small businesses and a profits tax for larger businesses. Spending priorities include the community housing scheme and cash transfers for school-aged children.
- Phosphate exports rose by 56.8% in FY2016 to 160,000 metric tons in line with expectations, but remain far below previous levels—largely reflecting disruptions caused by the damaged mooring system. ADB maintains its growth forecasts at 3.0% in FY2016 and 15.0% in FY2017, as the economy fully recovers from the 10.0% contraction in FY2015 due to depressed phosphate exports. The outlook for inflation also remains unchanged, at 6.6% and 1.7% respectively.
- The recent establishment of the Nauru Intergenerational Trust Fund is a crucial step towards long run fiscal sustainability. The government deposited A$20.4 million to capitalize the trust fund, and development partners have contributed an additional A$13.2 million to date. The FY2016 budget allocates an additional A$10.4 million, in line with the trust fund contribution rule. A large share of revenues should be directed to the trust fund while focusing public spending on improving social outcomes and developing and maintaining infrastructure.

Lead author: Roland Rajah.

Palau

Recent developments

- Estimates show that the economy expanded by 8.2% in FY2015 (ended 30 September), up from 5.3% in FY2014. Main contributors to growth were tourism-related: accommodation and food services, construction, transportation, wholesale and retail trade, and information and communication.
- A state of emergency was declared in March 2016 due to the effects of a drought caused by El Niño. The Ngerimel Dam, the main source of water, dried up, forcing the government to implement water rationing and establish water stations in parched areas. Water deliveries have also been made to essential businesses including hotels and restaurants. Most schools have shortened their hours due to a lack of water for drinking and sanitation purposes.
- Visitor arrivals contracted by 14.0% in the first half of FY2016, with all major source markets registering declines. The government reduced the number of flights in April 2015 and aircraft maintenance by one of the operators from Hong Kong, China in November and December 2015 further decreased arrivals.
- In addition, the drought may have discouraged tourists because low water levels and high heat decimated the jellyfish population in the Rock Island Jellyfish Lake. Arrivals from the PRC, which accounted for about half of all arrivals, fell by 28.2% (y-o-y) during the peak season in January to March 2016.
- The value of total imports declined by 5.3% (y-o-y) during the first half of FY2016. Mineral imports (mainly petroleum products) fell by 28.4%, mainly because of lower international fuel prices, and imports of machineries and appliances declined by 18.4%. Imports of fresh and processed food, which make up around 25% of the total, increased by 3.3%.
- The consumer price index contracted by 0.4% (y-o-y) in the first half of FY2016, mainly due to cheaper transportation and food costs. This is the first time since 2009 that the overall price index registered deflation.

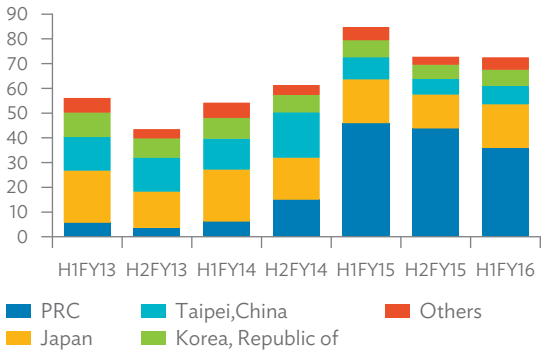
Outlook

- Growth is expected to slow to 3.0% in FY2016. A contraction in tourism arrivals is projected to be partly offset by higher tourist spending as part of the government's goal of shifting to higher-value tourism. Ongoing public infrastructure projects, as well as construction and renovation of hotels and other tourist facilities, are expected to buoy the economy. The economy is expected to rebound in FY2017 with the effects of El Niño gone and as benefits of the infrastructure projects are realized.

Key issues

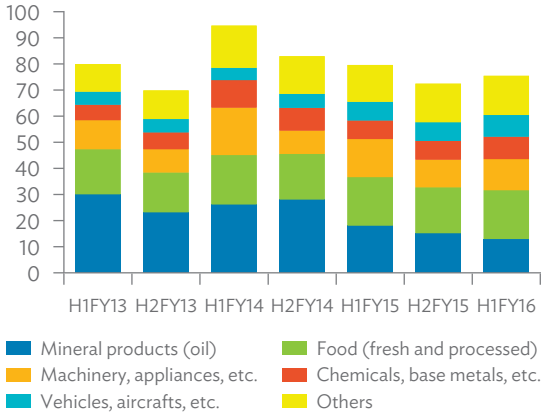
- There is a pressing need to balance economic growth driven by tourism against environmental protection and sustainability. The Palau National Marine Sanctuary Act prohibits commercial fishing and seabed mining. It also raises the Environmental Protection Fee to $100 (inclusive of $20 departure tax) from $50 and imposes a $50 visa fee, effective October 2016. These are on top of current fees such as the $100 permit to visit Jellyfish Lake and the rest of Rock Island.
- The higher fees may discourage tourism and thereby affect growth in the longer term. Although the prohibition on commercial fishing is expected to assist in achieving the government's goal of higher-value tourism, it will make the economy more dependent on a single sector.

Visitor Arrivals ('000, semiannually)



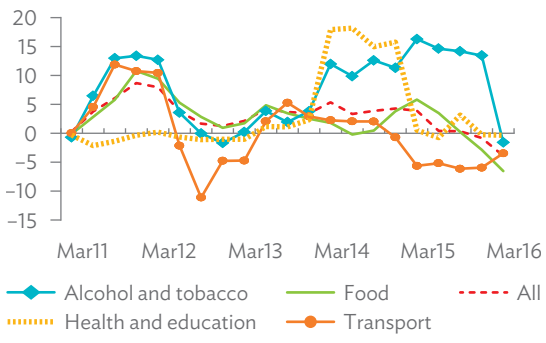
FY = fiscal year, H = half, PRC = People's Republic of China.
Note: PRC data includes Hong Kong, China and Macau, China based on Palau Visitors Authority classification.
Sources: Palau Visitors Authority and Office of Planning and Statistics.

Merchandise Imports (millions, semiannually)



FY = fiscal year, H = half.
Source: Palau Office of Planning and Statistics.

Inflation (% change, y-o-y, quarterly)

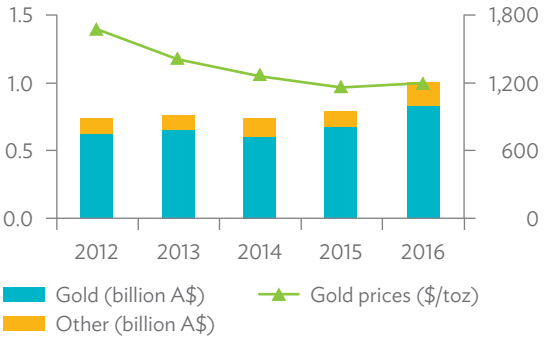


y-o-y = year-on-year.
Source: Palau Office of Planning and Statistics.

Lead author: Prince Cruz.

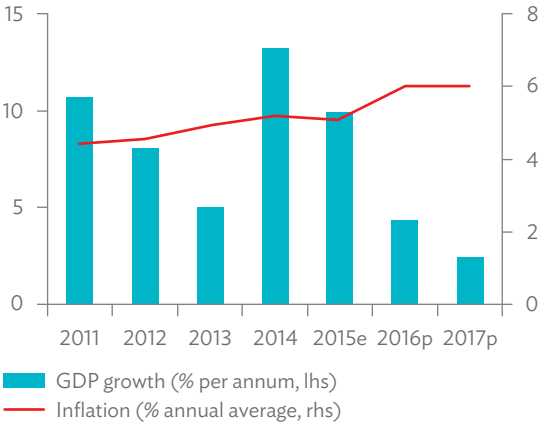
Papua New Guinea

Nonfuel Exports to Australia (January–April totals)



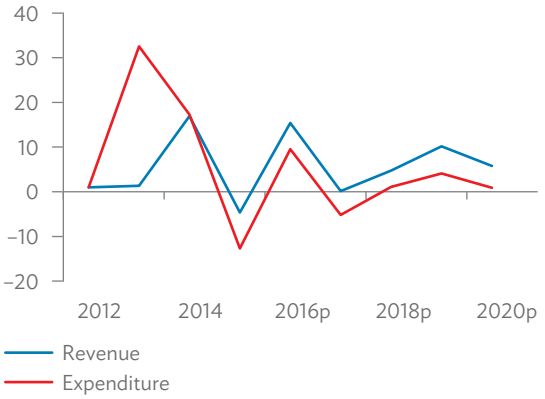
$ = US dollar, A$ = Australian dollar, toz = troy ounce.
Sources: Australian Bureau of Statistics and World Bank Commodity Price Data (Pink Sheets).

Growth and Inflation (annual)



e = estimate, GDP = gross domestic product, lhs = left-hand scale, p= projection, rhs = right-hand scale.
Source: ADB. 2016. *Asian Development Outlook 2016.* Manila.

Fiscal Performance (y-o-y % change)



p = projection.
Sources: Final Budget Outcome (various years); Papua New Guinea national budget document (2016).

Recent developments

- Inflation ran at 6.5% (y-o-y) in Q1 2016, largely due to higher costs of food and healthcare. Prices of alcoholic beverages, clothing and footwear, and housing registered above average increases.

- Non-fuel merchandise exports to Australia increased by 27.4% (y-o-y) in January–April 2016 led by higher gold shipments. This accounted for 72.5% of Papua New Guinea's (PNG) exports to Australia during the period. Rising international prices for gold helped boost earnings. Non-fuel merchandise imports from Australia declined by 13.2% (y-o-y) in January–April 2016, mainly due to lower purchases of machinery and food products.

- The 2015 Final Budget Outcome reported that revenues fell 21.3% short of original budget estimates. Government cut total expenditures by 16.7% (or K2.7 billion), yielding a budget deficit equivalent to 5.0% of GDP—near the 4.5% target. However, sharp and quickly planned spending cuts to some public programs appears to have harmed service delivery. Strain on fiscal resources as well as persistent pressures on foreign currency reserves and the impact this has on government and external liquidity, drove some international credit ratings agencies to downgrade their outlook on the PNG economy.

- New modeling of national accounts based on recent survey data by the PNG National Statistics Office (with technical assistance from the Australian Bureau of Statistics) has provided updated estimates of the country's GDP. It includes updated calculations of the share of economic activity across productive sectors, showing that agriculture, forestry and fishing, mining and quarrying, and wholesale and retail trade were the three largest contributors to GDP and accounted for 45.8% of total output in 2013. Estimates show that GDP increased from K25.4 billion in 2006 to K47.5 billion in 2013, and with the revisions, current measures of the fiscal deficit and debt stock have fallen (as shares of GDP) as has the share of spending on priority development sectors in total government spending.

Outlook

- Growth is projected to slow to 4.3% in 2016 and to 2.4% in 2017, driven by ongoing fiscal consolidation, with the 2016 growth projection facing possible downward revision pending release of Q1 and Q2 data. Full-year inflation is forecast at 6.0% for both 2016 and 2017, up from 5.1% last year due to exchange rate pressures and global commodity price prospects. Concerns about political conflict and civil unrest raise downside risks to the outlook.

- The 2016 fiscal deficit will likely be larger than the K2.1 billion estimated in the budget as 2015 expenditure obligations were carried into this year without corresponding allocations in the 2016 budget. These obligations totaled K400 million in the first quarter alone. Further, revenue collections are expected to be about K1.5 billion lower than 2016 budget projections. Although the Medium Term Fiscal Strategy plans for modest increases in revenue and expenditure until 2020, forward revenue projections may not be realistic. Without further fiscal consolidation, PNG is likely to continue to miss its fiscal targets.

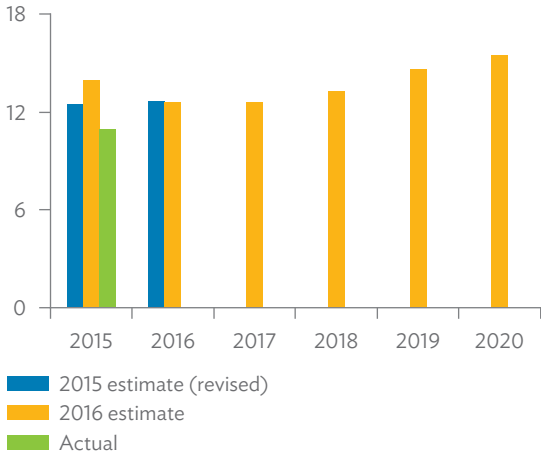
- As expenditures that cannot be deferred (e.g., interest payments and salaries) claim larger shares of annual government revenues, fiscal space is tightening, especially if discretionary allocations to provinces and districts are considered.

Papua New Guinea

Key issues

- The government faces a tough challenge in pursuing effective macroeconomic management while maintaining public spending for delivery of essential public services. Stakeholders within and outside government expect that public expenditures will remain at recent levels—despite rising resource constraints and deterioration in fiscal and monetary positions. A medium-term fiscal strategy that sets a credible path for achieving balanced budgets in the future is needed to guide macroeconomic policy. Final Budget outcomes from 2015 should be used to guide the baseline for forward projections. This could help alleviate current volatility in cash flow management by narrowing the gap between assumed and actual cash flow.
- A mismatch between budget allocation and execution is resulting in costly borrowing. Budget formulation needs to take into account capacity to deliver results and outcomes (rather than focusing on the allocations across sectors and programs). Budgets should move toward allocations based on performance and objective indicators of execution, and greater reporting of expenditures are recommended to improve expenditure effectiveness.
- Increasing productivity in the fisheries sector could help boost jobs. A foreign investor group has approached the National Fisheries Authority, proposing to develop a new fish processing facility. While developing a fish processing and export center in Madang would be consistent with the government's strategy to capture greater value from the fisheries sector, the proposal merits critical scrutiny in regards to environmental impacts and ensuring facility productivity is adequate to sustain international competitiveness without government subsidies or supports.

Revenue Performance and Outlook
(billion kina)



Source: Papua New Guinea national budget documents (various years).

Lead authors: Yurendra Basnett, Christopher Edmonds, and Cara Tinio.

Samoa

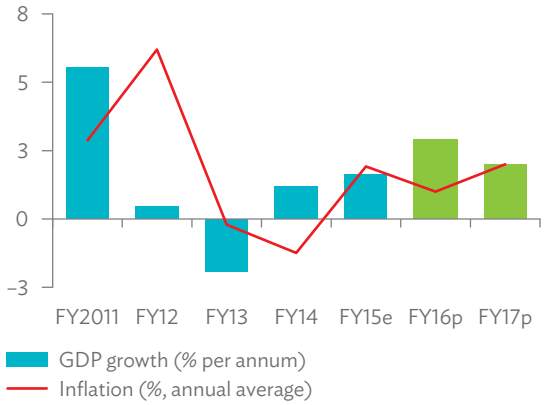
Recent developments

- The economy grew by an estimated 3.5% in FY2016 (ended 30 June) due to strong growth in the electricity, fishing, tourism, transport, and water sectors. Commencement of two deep-sea fishing operations in Samoa boosted fisheries output by 50.8% in FY2015. Similar growth has been recorded in the first half of FY2016. The ongoing airport upgrades and investments in new tourism facilities have boosted construction activity.
- Visitor arrivals rose by 9.8% (y-o-y) in the first 8 months of FY2016, with arrivals from most source markets increasing. Remittances over the first 3 quarters of FY2016 declined by 1.1%, largely reflecting exchange rate movements. Most notable declines are from the United States and New Zealand.
- The current account deficit for the first half of the fiscal year is substantially lower; ST43 million compared with ST78 million in the same period of FY2015. This is due to lower prices of imports as well as higher export earnings from fisheries and the services sector, which together offset declining remittances.
- Consumer prices increased by 0.5% (y-o-y) in the first 9 months of FY2016 with little upward pressure from import prices. Full-year inflation is expected to reach 1.0%.

Outlook

- Growth is expected to moderate to 2.0% in FY2017. The positive performance in fishing, tourism, and construction is set to continue. Large infrastructure investments supported by Samoa's development partners should provide further stimulus for growth. Notable downside risks are disasters and volatility in the global economy.

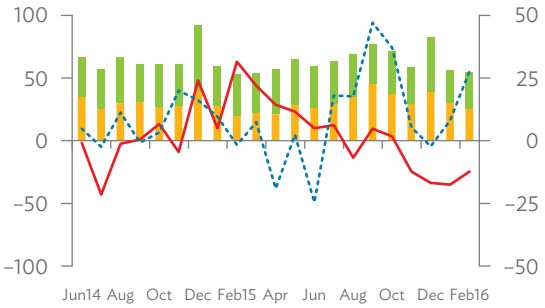
Growth and Inflation
(annual)



e = estimate, FY = fiscal year, GDP = gross domestic product, p = projection.
Sources: Samoa Bureau of Statistics and ADB estimates.

Samoa

Key Sources of Income (3-month m.a.)



lhs = left-hand scale, rhs = right-hand scale, y-o-y = year-on-year.
Source: Central Bank of Samoa.

Lead author: Shiu Raj Singh.

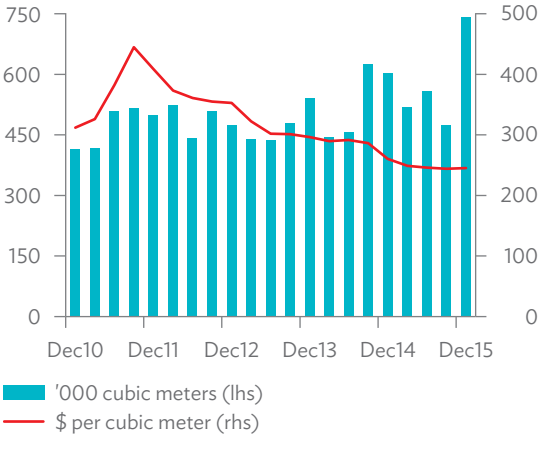
- The government plans to reduce the overall fiscal deficit to the equivalent of 3.5% of GDP in FY2017—down from 4.7% in FY2016—targeting productivity increases across all ministries and agencies. External grants are expected to increase in the next fiscal year as construction of development-partner-supported projects begins.
- Inflation is projected to remain modest at 2.0%. International commodity price movements are seen to remain generally flat.

Key issues

- Correspondent banks have closed the accounts of a number of money transfer operators due to potential risks of money laundering and terrorism financing. These closures disrupt the flow of remittances, increase costs, and reduce access to financial services, thereby hampering financial inclusion efforts. Samoa could benefit from added measures to strengthen its regulatory environment to counter money laundering and terrorism financing.
- Samoa is facing the closure of the Yazaki wire-harness company in FY2017. Yazaki is one of the country's largest employers of young people and women, with a current workforce of around 1,000. It will be important to identify employment opportunities for them elsewhere in the economy. Recent developments in the fisheries sector, which has seen a substantial increase in output, have prompted the government to consider investments in port facilities for deep sea operators. Also, Samoa is currently investing in a sub-sea internet cable that could open up new employment opportunities in information and communications technology.

Solomon Islands

Log Exports and Prices (annual)



lhs = left-hand scale, rhs = right-hand scale.
Sources: Central Bank of Solomon Islands and World Bank Commodity Price Data (Pink Sheets).

Recent developments

- Growth was 2.9% in 2015 according to preliminary estimates. This was slightly lower than ADB's estimate of 3.2% and up from 2.0% in 2014. Growth was led by the services sector. Logging surprised on the upside, however mining and manufacturing were both weaker than expected.
- Logging exports have continued to exceed expectations, rising 7.7% in 2015 to 2.3 million cubic meters due to high fourth quarter activity. Total export earnings, however, continue to contract as export volumes and prices for most commodities remain weak. Mining, fisheries, and palm oil exports saw steep declines in 2015. Despite weakening exports, the current account deficit narrowed due to low global oil prices.
- Domestic demand has been boosted by significant fiscal expansion. The 2015 budget deficit was equivalent to 1.2% of GDP, financed by drawing down on cash reserves and indicating a significant expansionary shift following years of fiscal surpluses.
- The government passed a supplementary budget in May, raising planned expenditure by the equivalent of 1.9% of GDP. The majority of the new spending is directed towards scholarships. This could see the 2016 budget deficit reach the equivalent of 4.7 % of GDP and further deplete cash reserves.

Solomon Islands

The Ministry of Finance and Treasury plans to conduct a midyear savings exercise. However, as in previous years, the government may also have to slow spending approvals to contain the fiscal deficit.

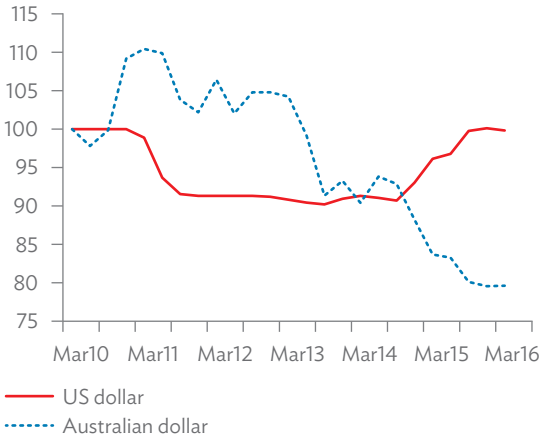
Outlook

- ADB is revising its growth forecasts for 2016 and 2017 slightly downward, to 2.7% and 2.5%, respectively, in light of the lower than expected 2015 growth rate. Strong fiscal expansion and private investment should continue to stimulate domestic demand albeit at a slowing pace while weak exports continue to weigh on growth. Fiscal policy and logging performance are key risks to the outlook. The 2016 inflation forecast remains unchanged at 4.4%, with inflation having already accelerated to 3.9% by April.

Key issues

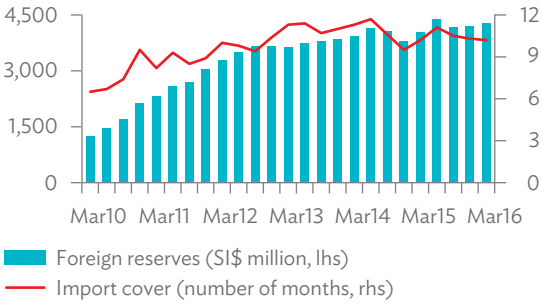
- The supplementary budget calls attention to several fiscal management concerns. With respect to macroeconomic stability, a higher deficit may raise inflationary pressures and deplete cash reserves. In terms of allocative efficiency, increased spending on tertiary scholarships risks crowding-out spending priorities with likely higher returns (e.g., primary education). Further, unrealistic budgets, large supplementary budgets and potential Ministry of Finance and Treasury efforts to slow spending approvals undermine budget credibility and effective public financial management.
- The government launched a Commission of Inquiry into the Solomon Islands Port Authority (SIPA), following a range of controversies. A chief concern has been sharp increases in port tariff charges introduced over the previous 12 months. In July 2015, SIPA announced increases in port charges that ADB estimates represent, on average, a 300% increase. At the same time, users report that port services have been deteriorating. One major international shipping line has withdrawn its services, while others have passed on these higher charges to customers.
- Analysis by ADB indicates that the current SIPA port charges are higher than those at similarly sized ports in the region, including in Apia, Lae, Lautoka, Nuku'alofa, and Port Vila. The average cost per port call (using a standard model container ship) for these ports is $8,108 per ship as compared to Honiara, which is S$17,266 per vessel call. The analysis also confirms that Honiara's port performance compares poorly with these other ports according to standard port productivity measures. The government should consider implementing reforms to commercialize and rationalize SIPA, including strengthening the port tariff setting process and reversing the recent tariff increases in favor of more gradual changes.
- Competing commercial claims over high grade nickel deposits in Isabel province were ruled void by the Appeals Court in March. Following years of legal dispute, the ruling paves the way for the government to initiate a new process to negotiate concessions to develop the site. Ensuring a transparent and legally sound process to identify customary landowners will be critical to harnessing these nickel resources. If the process is successful, the Isabel mine could quickly become an important new source of growth, foreign exchange, and public revenue. The deposit is valued at around $1.5 billion and site conditions should allow exports to ramp up quickly once mining operations begin. Designing a policy framework—specifically appropriate revenue, fiscal, and macroeconomic policies—will be essential to ensuring development of the nickel mine supports sustainable and inclusive development.

Exchange Rate Indexes
(Index: Mar 2010 = 100, quarterly)



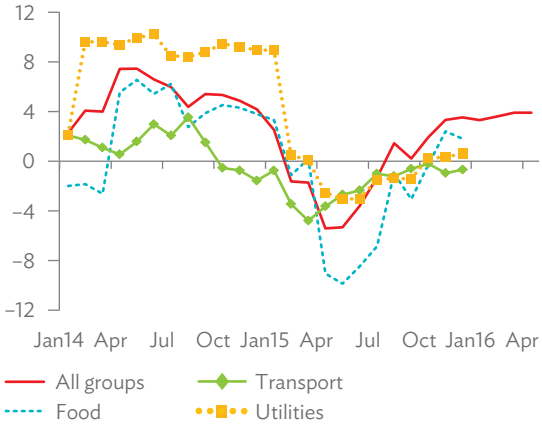
Source: Central Bank of Solomon Islands.

Foreign Reserves
(months of imports, end of period)



lhs = left-hand scale, rhs = right-hand scale, SI$ = Solomon Islands dollar.
Source: Central Bank of Solomon Islands.

Consumer Price Index, by Commodity Groups
(y-o-y % change, monthly)

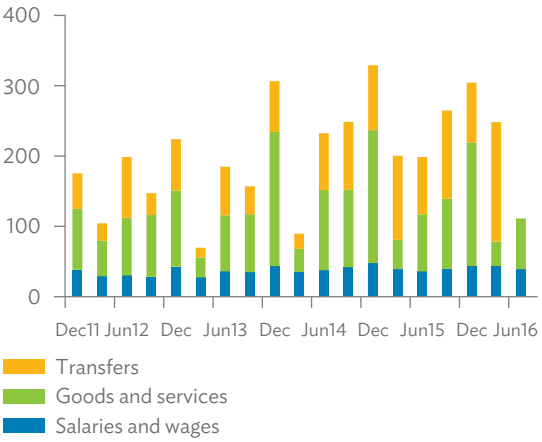


y-o-y = year-on-year.
Source: Central Bank of Solomon Islands.

Lead author: Roland Rajah.

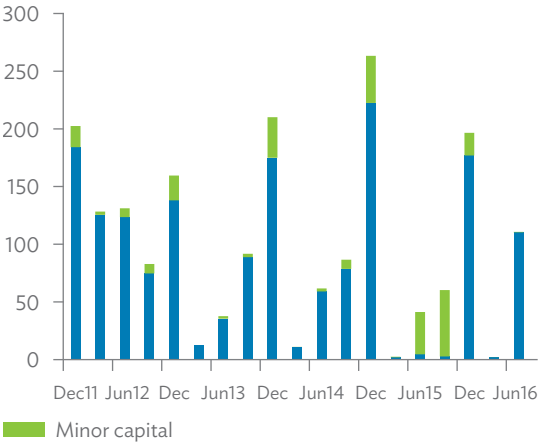
Timor-Leste

Components of Recurrent Expenditure ($ million, quarterly)



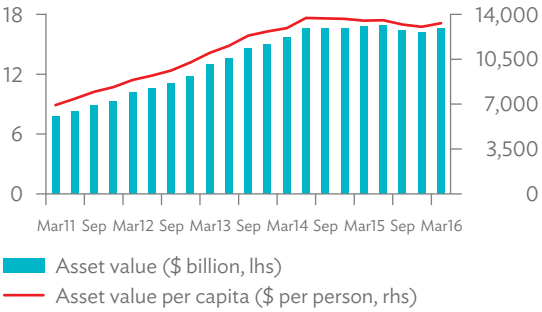
Source: Government of Timor-Leste Transparency Portal, www.transparency.gov.tl

Components of Capital Expenditure ($ million, quarterly)



Source: Government of Timor-Leste Transparency Portal, www.transparency.gov.tl

Petroleum Fund Assets (end of period, quarterly)



lhs = left-hand scale, rhs = right-hand scale.
Source: Central Bank of Timor-Leste.

Recent developments

- Public spending increased by 37.4% (y-o-y) during the first half of 2016. Transfer payments accounted for 43.8% of spending and capital investment for 15.9%, which was almost triple the level during the same period of 2015.
- Of the transfer payments, 69.1% were to the Special Administrative Region of Oe-Cusse Ambeno. Payments to veterans accounted for 15.2% of total transfers during the first half of 2016, an increase of 58.4% over the same period in 2015.
- The 2016 Budget Law restructured Timor-Leste's Infrastructure Fund as an autonomous agency under the Minister of Planning and Strategic Investment. A new decree law regulating the operations of the fund was approved in March and entered into force in mid-May. Delays in defining the Fund's new legal framework have not affected disbursements.
- Timor-Leste received $125.3 million in petroleum taxes and royalties in Q1 2016, equivalent to 17.9% of the 2016 budget forecast. Petroleum production was 28.7% above forecast levels during the period, but international oil prices were 46.8% below the budget forecast. Non-oil revenues were up by 27.1% (y-o-y) during the first half of 2016 due to increased collections of customs duties and domestic taxes.
- The Petroleum Fund balance rose by 2.2% in Q1 to reach $16.6 billion in March 2016. The gross return on investments during Q1 was 2.1%, in line with the Fund's benchmarks.
- Strong budget execution provided additional liquidity to the banking sector, with total deposits up 18.5% (y-o-y) to $735.0 million and the money supply expanding by 13.0% (y-o-y) in Q1. Private sector credit, mainly for agriculture, construction, trade, and tourism, rose by 8.7% (y-o-y). However, most of the additional liquidity held by private banks was placed in foreign assets, with net holdings up 26.2% y-o-y in Q1. The weighted average interest rate for loans increased modestly in Q1 with the average spread between deposit and lending rates increasing to 13.4%.
- Merchandise imports rose 34.9% (y-o-y) in Q1 2016. However, nonfuel imports increased by only 10.7% due to higher purchases of food and construction materials. Exports of coffee, the majority of merchandise exports, rose substantially (219%) in the 12 months to March 2016. Initial indications are that the 2016 harvest is likely to be sharply higher compared with 2015.
- Consumer prices fell by 1.5% (y-o-y) in the first five months of 2016 due to declining import prices of rice, oil, and other foods. However, the cost of education increased by 6.0%. Prices appear to have fallen more in Dili than in the rest of Timor-Leste, although measurement outside Dili remains limited.

Outlook

- Non-oil GDP growth is forecast at 4.5% in 2016 and 5.5% in 2017 on the back of rising public and private investment. The 2016 inflation forecast is cut to 1.2% due to the price declines seen in the early part of the year. Inflation is expected to rise to 3.0% in 2017.
- In early June, the government signed a 30 year agreement with the Bollore Group to develop a new international port close to Dili. Construction is scheduled to begin in 2017 and is expected to take 3 years. The initial investment is estimated at $278.3 million (17.8% of non-oil GDP) with 46.5% provided as a government subsidy and the remainder provided by Bollore. Total investment during the life of the concession has been projected at $490 million.

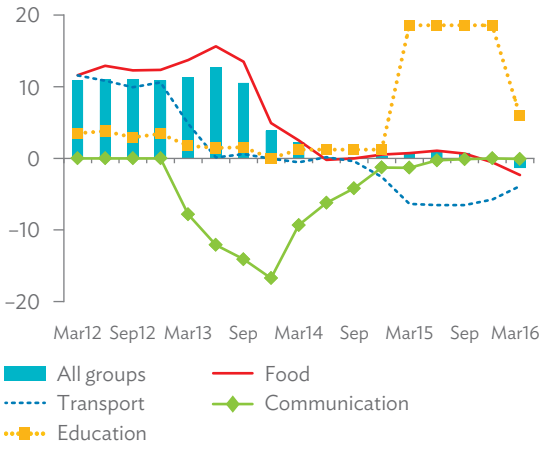
Timor-Leste

- The government is proposing to increase capital investment appropriations in the 2016 Budget. If approved, this would enable increased withdrawals from the Petroleum Fund. These would boost public investment in 2016, but the bulk of the spending is likely to occur in future years. The 2017 Budget is being prepared, and the Ministry of Finance has proposed a fiscal ceiling of $1.2 billion.

Key issues

- Timor-Leste's fisheries are underdeveloped. Fishing is concentrated close to the coast, and uses simple technologies. Increasing evidence suggests that current activities are straining reef ecosystems and threatening long-term food security.
- With appropriate regulation and management, Timor-Leste's deepwater fisheries should be able to support increased capture rates. Further, comanagement models for near-shore fisheries should empower local communities and thereby help to increase the economic contribution of fisheries, enhance food security, and conserve marine ecosystems.
- Marine aquaculture offers alternative sources of food and income for coastal communities but a rigorous evidence based strategy is needed to leverage this potential. Seaweed production currently supports approximately 1,300 households, and there is scope to increase yields. Farming of high value fish (e.g., grouper, barramundi) is feasible although regulation is needed to manage environmental risks.
- Freshwater aquaculture could improve nutrition in inland areas. Genetically improved Tilapia have recently been introduced with the first harvest due in November 2016. Biophysical assessments suggest that Tilapia could make a major contribution to protein availability in rural areas, and provide significant income for up to 40,000 households.

Consumer Price Index, by Commodity Group
(y-o-y % change, quarterly)



y-o-y = year-on-year.
Source: Statistics Timor-Leste.

Lead author: David Freedman.

Tonga

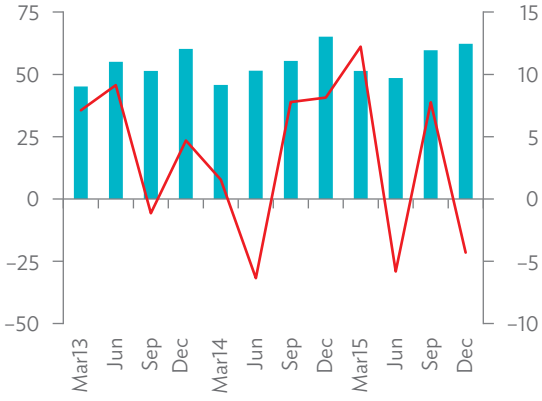
Recent developments

- The economy grew by an estimated 3.1% in FY2016 (ended 30 June) driven by recovery in agriculture, renovation of the International Dateline Hotel, construction of the St. George's Palace office complex, and strong private demand. Rising demand has been fueled by low commodity prices and inflation, as well as rising remittance receipts (up by 16.2% y-o-y) and increased private sector lending (up by 15.0% y-o-y).
- Tourism has performed strongly, with visitor arrivals increasing by almost 15.0% (y-o-y) to about 75,000 visitors in March 2016. The current account deficit in the second half of the fiscal year is substantially lower; T$25.8 million (2.9% of GDP) compared with T$30.8 million (3.4% of GDP) in the corresponding period of FY2015 on lower commodity prices and stronger remittances.
- Consumer prices increased by 1.4% in March 2016 compared with March 2015, driven by higher prices for domestic goods and services which offset lower prices on imported goods. Average annual inflation is forecast at 2.0%, reflecting the effects of the food shortage on Vava'u following the impact of Cyclone Winston, as well as postcyclone construction.

Outlook

- In FY2017, growth of 2.6% is forecast supported by construction, tourism, and trade related to preparations for the Pacific Games. Notable short-term downside risks include disasters; medium-term risks include cost overruns in preparations for the games that could weaken the government's fiscal position

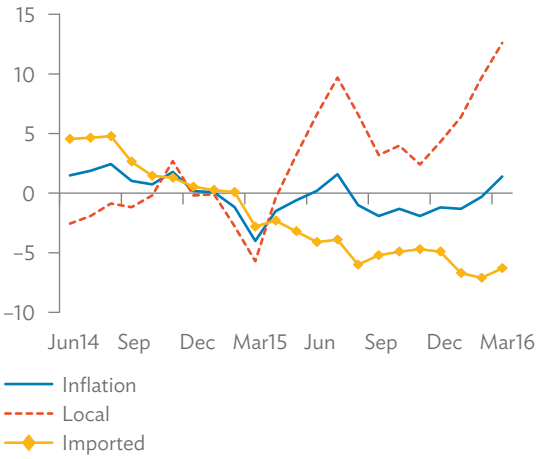
Private Remittances
(quarterly)



lhs = left-hand scale, rhs = right-hand scale, y-o-y = year-on-year.
Source: National Reserve Bank of Tonga.

Tonga

Consumer Price Index
(y-o-y % change, monthly)



y-o-y = year-on-year.
Source: National Reserve Bank of Tonga.

Lead author: Lai Tora.

and add to public debt. Inflation is projected to remain below 2.0% following continued low international commodity prices.

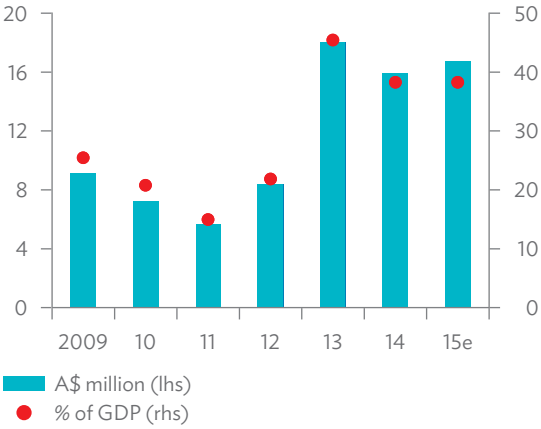
- The tourism outlook is positive, with Fiji Airways commencing direct flights from Nadi to Vava'u in April 2016. These are expected to bring additional visitors to Tonga during the peak whale-watching season from May to August.
- The FY2017 national budget proposes a 10% increase in total expenditure (over the FY2016 budget). The construction of new fuel tanks and the establishment of a new Customs Office are new expenditure items. Development partner contributions in support of the Pacific Games also contribute to the increase in expenditure.

Key issues

- Reforms aimed at strengthening public enterprise governance (2009–2015), liquidating insolvent public enterprises, and increasing private sector participation has improved enterprise performance. However, fiscal costs and risks can be further reduced through additional governance reforms and greater private sector involvement. In this context, in June 2016 the government successfully negotiated the commercialization of Tonga Forest Products Limited with a New Zealand-based company, Maori Trust, which will settle the former's debt arrears of $4 million and inject $4.1 million of capital for the replanting of pine trees on 'Eua.
- Fisheries play a minor role in Tonga's economy as most tuna species largely bypass national waters during annual migrations. Niche ocean-based products, including sea cucumber and Tongan wild seaweed, have seen some success in the past, but overseas competition and overharvesting of sea cucumber has largely destroyed these markets. The use of wild seaweed in the manufacture of cosmetics could provide an opportunity for reviving exports, particularly to Europe.

Tuvalu

Fishing License Revenues
(annual)



A$ = Australian dollars, lhs = left-hand scale, p = projection, rhs = right-hand scale.
Sources: Government of Tuvalu 2016 national budget and ADB estimates.

Lead authors: Malie Lototele and Beatrice Olsson.

- Growth is forecast at 3.0% in 2016 compared with 3.5% in 2015, with government-funded construction of housing, education, health, and other public facilities being the key drivers. In 2017, growth is projected to hold steady at 3.0%, supported by the ongoing fiscal expansion and planned development-partner-financed projects.
- Inflation in 2016 is seen to moderate to 2.0% from 3.5% in 2015 given low global commodity prices. There may be some upward pressure from higher fiscal spending and possible weakness in the Australian currency, which could make imports more costly. In 2017, inflation is projected to hold steady at 2.0%.
- Government revenues in 2016 are projected to be 25% higher than in 2015. This assumes a 2% increase in tax revenues; a 49% increase in collections of government charges; and an 88% rise in income from fishing licenses (assuming the prevailing US/Australian dollar exchange rate holds), including revenues that the government did not receive in 2015.
- Budgeted spending in 2016 is 43.2% higher than in 2015 due to a 20.5% increase in recurrent expenditure (public sector wages, scholarships, and the Tuvalu Medical Treatment Scheme) and a 114.1% increase in nonrecurrent spending.
- Recent increases in fishing license revenues have coincided with a period of major fiscal expansion and boosted growth. However, consolidation is crucial to putting spending on a sustainable footing.

Vanuatu

Recent developments

- The 2016 budget was released in May after delays from the snap elections and formation of a new government in January. It continues to target a small net operating surplus (excluding development partners) equivalent to 0.1% of GDP. Grants and loans from development partners are planned to fund spending equivalent to 16.7% of GDP on major infrastructure and Cyclone Pam reconstruction projects. This is seen to push the debt-to-GDP ratio to 33%, but would help spur growth in the near term and increase growth potential in the long run. Subsequently in June, parliament approved additional supplementary appropriations, equivalent to 1.6% of GDP, with the major items being a financing package for Air Vanuatu and additional funding for school fee exemptions.
- Preliminary estimates show that the government ran a large overall surplus equivalent to 7.2% of GDP in 2015, despite budgeting for a large deficit of similar magnitude. The difference reflected approval delays for development partner financed projects, coupled with a surge in grants following the cyclone.
- Emergency repairs to the Bauerfield International Airport were completed in early May, after major regional airlines cancelled services due to runway safety concerns. By June, Virgin Australia and Qantas (codeshare with Air Vanuatu) had resumed flights to Port Vila. However, Air New Zealand has stated it will not consider resuming services until details for a permanent solution to runway safety concerns are confirmed. Two major hotels have reopened after completing reconstruction and renovation.
- In Q1 2016, exports rose by almost 40% (y-o-y) on the back of strong kava and copra exports. Imports rose by 32.7% in the same period, driven by a sharp increase in food and capital imports—more than offsetting lower fuel costs.
- At its March meeting, the central bank lifted the policy rate to 2.9%. This followed a sharp rate cut (to 1.9%) adopted in the immediate aftermath of Cyclone Pam. However, the bank maintained its reserve requirement at 5.0% of deposits.

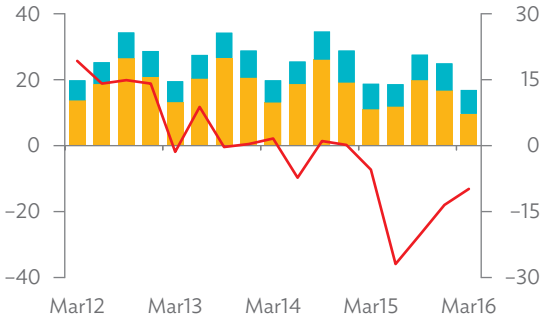
Outlook

- Growth is expected to pick up to 3.5%, higher than previously forecast, as major infrastructure and cyclone recovery projects get underway and broader economic recovery continues. Tourism, particularly cruise ship visitation, has been stronger than expected with cruise ship arrivals remaining at around 30,000 a month since December—significantly higher than in previous years. Air arrivals have fallen, but are proving more resilient than anticipated given the problems at the international airport. Inflation is projected at 1.9% for 2016.

Key issues

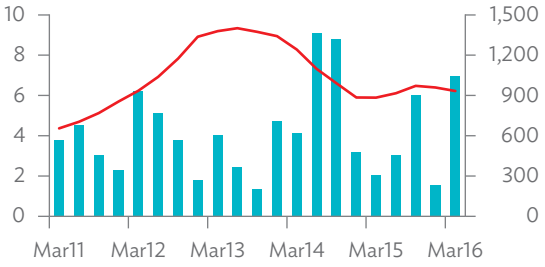
- State-owned enterprises (SOEs) continue to be a drain on both economic growth and the budget. Although Vanuatu's SOE portfolio is smaller than in other Pacific Islands, the fiscal costs are large relative to the budget, and financial performance has been deteriorating, primarily reflecting large financial losses at Air Vanuatu. Unfunded community service obligations are a particular problem. Several SOEs are inactive or insolvent and should be liquidated . Reforms under a planned SOE bill would help strengthen SOE performance, particularly by requiring SOEs to generate profits to cover their cost of capital, putting in place a framework for funding community service obligations, and prohibiting the appointment of civil servants and elected officials to SOE boards.

Tourist Arrivals (quarterly)



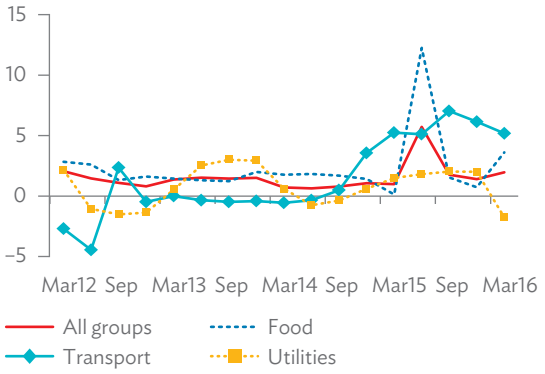
lhs = left-hand scale, rhs = right-hand scale, y-o-y = year-on-year.
Source: Vanuatu National Statistics Office.

Copra Exports (quarterly)



lhs = left-hand scale, rhs = right-hand scale.
Sources: Vanuatu National Statistics Office and World Bank Commodity Price Data (Pink Sheet).

Consumer Price Index, by Commodity Group (y-o-y % change, quarterly)



y-o-y = year-on-year.
Source: Vanuatu National Statistics Office.

Lead author: Roland Rajah.

Capturing economic benefits from the Pacific's tuna resources

The annual tuna fisheries catch in the western and central Pacific Ocean (WCPO) averaged 2.7 million metric tons, valued at $6.1 billion over 2011–2015. Of this, around 1.6 million metric tons worth $3.1 billion was taken in exclusive economic zones (EEZs)[1] of the Pacific Island Forum Fisheries Agency (FFA) members. A key economic challenge that FFA members face at both the national and regional levels, as they develop and implement management policies for the Pacific tuna fisheries, is to maximize their share of economic benefits flowing from the exploitation of the tuna resource.

Recognizing this challenge, FFA members adopted the Regional Roadmap for Sustainable Pacific Fisheries in 2015 to express their shared goals and strategies. The economic strategies outlined in the road map can be divided into two key components: taking control of the fishery, and leveraging that control to maximize the economic benefits generated from the fishery to national economies.

This paper discusses issues related to each component, and the different roles that national and regional policy development plays in achieving the overarching objective of capturing the economic benefits generated from tuna fisheries.

Taking control of the fisheries

FFA members' commitment to take control of the WCPO tuna fisheries is explicitly laid out in the road map as follows: "The long-held Pacific Island Countries (PICs) commitment to Zone based management provides the key to taking control of the major fisheries. FFA members commit to vigorously assert a system of national rights, within a cooperative framework of binding limits that will be managed under formal Harvest Strategies, including through equitable and responsible reduction where necessary."

In essence, taking control of the WCPO tuna fisheries involves four broad strategies: (i) establishing rights-based management systems; (ii) ensuring that the total level of rights allocated under the rights-based management system, and hence fishing activity, is binding and meets both biological and economic objectives; (iii) allocating shares of limited rights to participants; and (iv) ensuring that fishing activities in areas that fall outside of the jurisdiction of the management system are also constrained. To do this requires cooperation at the regional and subregional levels.

FFA members continue to develop regional and subregional arrangements establishing rights-based management systems for the WCPO tuna fisheries. These systems are based on creating limits to the level of fishing activity across the EEZs of participating coastal states through, for example, catch or effort limits. Shares are then allocated to these states. This approach is in contrast to flag state-based limits (common in other international fisheries) where allocations are based on historical catch shares. A zone-based approach means that coastal states, which hold the rights to the fishery, determine not only who can fish in their waters but also how much they can catch. Under a flag-based system, coastal states only have control over who can enter their waters with catch rights being allocated to the flag states. To be successful, the management system should cover a significant proportion of the fishery concerned and impose limits on fishing activities. If vessels can easily shift their fishing activity elsewhere or the rights created are freely available to any vessel that seeks them, the system will fail.

To date, the Parties to the Nauru Agreement (PNA) have led the way in taking control of the Pacific's fisheries resources through the establishment of a rights-based management system for the purse seine fishery that lies within its members' EEZs.[2] This system, an outstanding global example of coastal states taking control of a fishery based on highly migratory stocks, is known as the purse seine vessel day scheme (PS VDS). The scheme limits fishing activity through an agreed total allowable effort (TAE) limit across participants' EEZs (Figure 1). The TAE is then distributed among the parties according to an agreed formula based on catch history and relative biomass. The establishment of the VDS has seen a dramatic increase in the returns that its members are able to achieve from allocating access rights to their EEZs. Access fees paid by foreign vessel operators have increased from an average of less than $1,500 per day prior to the implementation of the VDS in 2008 (Havice 2013) to a minimum of $8,000 per day since 2015, with some VDS participants achieving average returns per VDS day in excess of $11,000 in 2016. The ability of VDS participants to attract investment to their domestic fisheries sector has also increased dramatically with the number of investment proposals increasing significantly in recent years. The PNA is also implementing the longline VDS (PNA LL VDS), a similar scheme for the longline fishery within LL VDS participants' EEZs.[3]

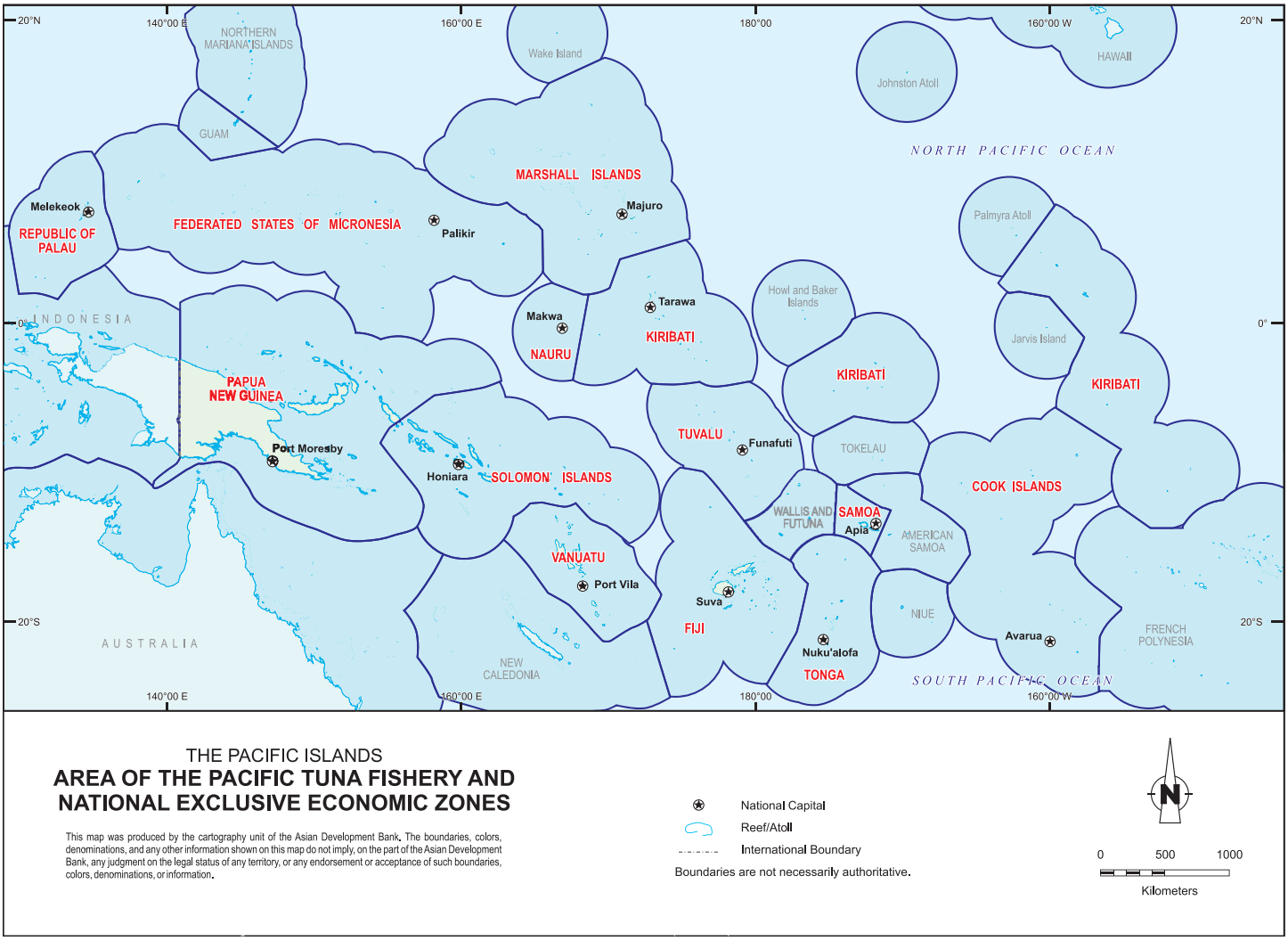
Less well known, and at an earlier stage of development, is the Tokelau Arrangement (TKA) under which participants aim to take control of the south Pacific longline fishery. The TKA uses a similar regional cooperation approach to establish a rights-based management system, setting a limit across all participants' EEZs and allocating shares to participants.

The Tokelau Arrangement for the south Pacific longline fishery

For a number of years, Pacific fisheries ministers have called for urgent action to address the depletion of the south Pacific albacore stock, which makes up around 55%–60% of the catch taken in the

Capturing economic benefits from the Pacific's tuna resources

Figure 1: Exclusive Economic Zones of Pacific Countries



Source: Secretariat of the Pacific Community. https://www.spc.int/aquaculture/index.php?option=com_content&view=article&id=13&Itemid=2

southern longline fishery.[4] Despite efforts to implement tighter management through the Western and Central Pacific Fisheries Commission (WPCFC), effort in the southern longline fishery has continued to grow, depleting stocks of albacore tuna such that catch rates are often below economically viable levels for many Pacific island domestic vessels.

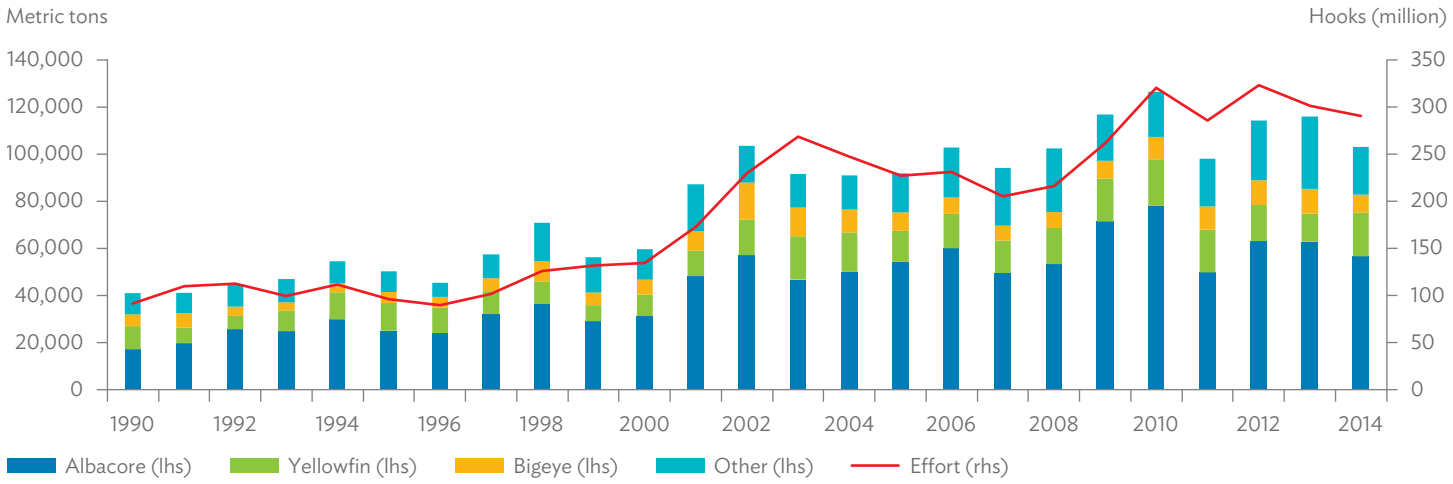
Between 2008 and 2010, the number of hooks set in the southern longline fishery increased by nearly 50% (Figure 2). However, increases in resulting catch rates were only around half those for effort. Further, average catch rates over the most recent 5-year period (2011–2015) were around 22% lower than in 2006–2010.

Since 2011, persistently low catch rates have resulted in poor economic conditions for the southern longline fishery and forced Pacific island vessels to tie up for extended periods or to exit the fishery. Eleven FFA members,[5] within whose waters over half of the south Pacific albacore catch is taken, decided to implement albacore catch limits and an associated zone-based management arrangement across their EEZs. The TKA took effect in December 2014 with the objective of promoting optimal utilization, conservation, and management of stocks, by developing management approaches that maximize economic returns from sustainable harvesting of the resource, and increasing TKA participants' control of the fishery. The TKA allows for the expansion of its membership to include other coastal states in the region, such as American and French territories which are not FFA members.

The TKA commits participants to limit the catch of albacore within their EEZs to individual zone limits, and develop measures to regulate catch and manage the zone-based limits. Participants are now in the process of developing a catch management scheme that fulfills these commitments and enables them to make the best use of agreed catch limits through such mechanisms as

Capturing economic benefits from the Pacific's tuna resources

Figure 2: Catch and Effort Trends in the Southern Longline Fishery



lhs = left-hand scale, rhs = right-hand scale.
Source: Western and Central Pacific Fisheries Commission.

multijurisdictional harvest control rules, tools for transferability and reciprocal licensing, and flexible national implementation.

While the albacore stock is currently biologically healthy, if recent effort levels are maintained the size of the stock will continue to decline as will catch rates, with economic consequences for coastal states and their fleets. Declining catch rates reduce the viability of domestic fleets, and the ability of PICs to levy access fees on foreign vessels. Participants to the TKA have agreed to an interim target reference point (TRP) for the south Pacific albacore stock aimed at achieving both sustainability of the stock and the economic viability for the fishery. To inform TKA participants and the broader FFA and WCPFC membership, the Secretariat of the Pacific Community (SPC) and the FFA Secretariat undertook a series of analyses examining biological and economic outcomes under a number of potential TRPs (see, for example, SPC 2015 and Pilling et al 2015). In summary, these analyses indicated that:

1. Maintaining current effort levels would result in the albacore stock size and catch per unit of effort (CPUE) continuing to decline, with CPUE in 2033 being around 14% lower than current levels.

2. There was a significant risk (20%) that the limit reference point (LRP) for albacore agreed by the WCPFC (20% of SB_F = 0, that is, a stock 20% of the size that it would be in the absence of fishing) would be breached.

3. The use of maximum sustainable yield as a long-term target for south Pacific albacore is seen as implying a high risk of the stock falling below the agreed LRP. The CPUE was estimated to fall a further 65% by 2033.

4. Achieving maximum economic yield, where economic yield was defined as rents earned from the fishery, required effort reductions of over 75%. This would result in the CPUE increasing by around 50% by 2033 and there being no risk that the albacore LRP would be breached. However, this would be associated with declines in catch in the order of 60%.

5. Effort reductions in the order of 25% are required just to ensure that CPUE in 2033 remains around current levels.

6. Effort reductions in the order of 40%–50% are required to return CPUE to levels prevailing prior to the rapid expansion of effort after 2008. At the reduced effort levels, profitability will increase significantly, ensuring the viability of domestic fleets and increasing returns to coastal states from the sale of access rights.

Based on these outcomes, FFA members recommended that a TRP for albacore be set at 45% of the size that the stock would be in the absence of fishing. This recommendation was based on the estimated changes to catch rates, which they view as the primary driver of profitability in the fishery. It was further noted that the proposed TRP should bring about a CPUE increase in the order of 15% from 2013 levels, which FFA members saw as essential to raising profitability and contributing to the development of domestic fisheries. It was also noted that a 45% TRP would return the stock to the 2007–2008 level (FFA 2015).

A major issue discussed at the WCPFC Harvest Strategy Workshop was the uncertainty regarding the path through which the TRP would be achieved (particularly the time frame over which the reductions would take place, and the burden of reduction for each fleet). These issues were cited as primary reasons why a number of WCPFC members could not accept the proposed TRP (Cartwright 2015). Nonetheless, TKA participants have adopted this as an interim TRP, pending further developments. A crucial issue will be managing catch within participants' EEZs to a total allowable catch that achieves the interim TRP. Given the magnitude of required catch reductions,

Capturing economic benefits from the Pacific's tuna resources

and the need to ensure that any reductions are not simply offset by increases elsewhere, these are likely to take time. However, TKA participants, as part of their policy deliberations, are now considering the biological and economic implications of alternative management interventions that will achieve the interim TRP, and have tasked SPC and FFA to undertake analysis on this issue.

Leveraging control and maximizing the value of allocated rights

Creating, limiting, and allocating rights in highly migratory multijurisdictional fisheries such as the tuna fisheries of the WCPO require a high level of regional cooperation and shared policy development. However, once these are in place, owners need to ensure that there are effective national policies for the management of those rights.

Participants to the VDS continue to develop strategies to maximize returns from the sale of vessel days to foreign companies. Some mechanisms being used include tendering and pooling VDS days from a number of participants, and purchasers of these days can use them anywhere within the participants' EEZs.

Currently, the main focus of FFA members is on maximizing the returns from selling access rights to foreign fleets, or a combination of this and promoting domestic fisheries development. Some FFA members see the provision of access rights to companies involved in the domestic fisheries sector at concessional rates as a means for achieving the latter.

The tradeoff between the potential additional government revenue that could be obtained from selling the days at the market rate, and additional economic benefits that companies involved in the domestic fisheries sector could generate (compared with operators that simply fish in the EEZ and have little interaction with the local economy) need to be considered. Some FFA members have been developing processes for setting concessional prices for companies involved in the domestic fishery sector that explicitly consider this tradeoff. In seeking to develop these processes, the need to implement a structured approach to the management of national rights was evident. To assist in this, the FFA Secretariat has recently embarked on developing a guide for the management of national fisheries rights allocated through regional or subregional rights-based management systems using an asset management framework. This guide will deal with a range of issues, including objectives, policies, strategies, and processes.

Conclusion

FFA members are continuing to develop and implement policies at the regional and subregional levels in order to implement rights-based management systems to allow them to take control of the WCPO tuna fisheries, set limits that achieve their objectives, and allocate rights among the participating coastal states. FFA members are also developing policies at the national level to enhance the management of their allocated rights, and ensure that they are able to extract maximum benefits from rights that they have created under regional rights-based management arrangements.

Lead authors: Chris Reid, Alice McDonald, and Len Rodwell, Pacific Islands Forum Fisheries Agency (FFA).

Endnotes:

1 As adopted at the Third United Nations Conference on the Law of the Sea (1982), a coastal state assumes jurisdiction over the exploration and exploitation of marine resources in its EEZ or the adjacent section of the continental shelf, taken to be a band extending 200 miles from the shore.

2 Members of the PNA are Kiribati, the Republic of the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Solomon Islands, and Tuvalu. Tokelau, while not a member of the PNA, is a member of the Palau Arrangement and a participant in the VDS.

3 All PNA members, except Kiribati, are participants in the PNA LL VDS as is Tokelau.

4 The southern longline fishery refers to the longline fishery south of 10°S within the WCPFC convention area.

5 Signatories to the Tokelau Arrangement currently include Australia, the Cook Islands, Fiji, New Zealand, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu.

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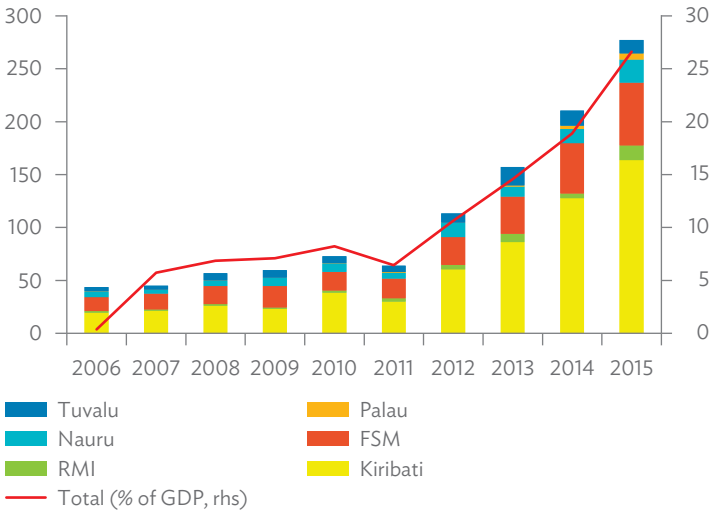
Managing rising fisheries license revenues in the Pacific: A review of five countries receiving large inflows

License fees have risen sharply since the vessel day scheme (VDS) was fully implemented in 2012, leading to huge increases in license revenues going to the Parties to the Nauru Agreement (PNA) governments (Figure 1). The cost per vessel day sold within PNA exclusive economic zones (EEZs) has risen from an average of roughly $1,350 in 2004 (World Bank 2013) to as much as $13,500 per day in 2014.

In 2010, PNA fishing license revenues amounted to only about 2.9% of the estimated $2.0 billion value of the total tuna catch. Four years later, this proportion had risen to 10.4% of total catch ($2.6 billion). Summing the fiscal data from Kiribati, RMI, FSM, Nauru, Palau, and Tuvalu shows there was a twofold increase in average fishing license revenues across the countries between 2012 and 2015 (relative to the comparable pre-VDS period, 2008–2011). Collections climbed from the equivalent of 7.1% of GDP in 2008–2011 to 17.7% in 2012–2015. In per capita terms, average fishing license revenues amounted to $704 per year in 2012–2015, 136% higher than in 2008–2011, across these six countries (Figure 2).

Figure 1: Fishing License Revenues, Select PNA Members ($ million)



FSM = Federated States of Micronesia, GDP = gross domestic product, PNA = Parties to the Nauru Agreement, rhs = right-hand scale, RMI = Republic of the Marshall Islands.
Source: ADB estimates based on data from national sources.

Vessel day scheme

The Nauru Agreement was signed in 1982 as Pacific countries acted collectively to try to limit pressure on tuna stocks and manage the renewable fishery resources in their EEZs. Kiribati, the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM), Nauru, Palau, Papua New Guinea (PNG), Solomon Islands, and Tuvalu are members of the PNA. About 60% of the western and central Pacific tuna catch by weight (30% of total world tuna catch) is taken from PNA waters. Initially, a management regime was based on a percentage of the prior year's declared catch value. However, since 2008, the PNA began to regulate access to the western and central Pacific purse seine industry through a VDS. The PNA represents one of the most successful examples of regional cooperation in the Pacific and, since 2012, the agreement has generated a substantial escalation in incomes from the extensive fisheries resources of its member countries.

The VDS aims to enhance the sustainability of skipjack tuna stocks by limiting fishing efforts while also maximizing revenues from fishing license sales. It establishes a maximum number of days for fishing in PNA waters, allocated to each country based on historical fishing effort in their respective EEZ. Countries can either sell their vessel days to fishing fleets (subject to a minimum benchmark fee), or trade days with other members. Trades occur when one country sells its allocated days, while another has days to spare, which is common as purse seiner fishing vessels pursue skipjack in accord with fish migration patterns that vary from year to year. This cap and trade scheme is sometimes criticized as seeking to establish a cartel controlling the supply of tuna; however, limits on the extraction of tuna are needed to protect this regional renewable natural resource. Currently, only purse seiners are covered under the PNA VDS, but efforts are underway to extend coverage to longliners.

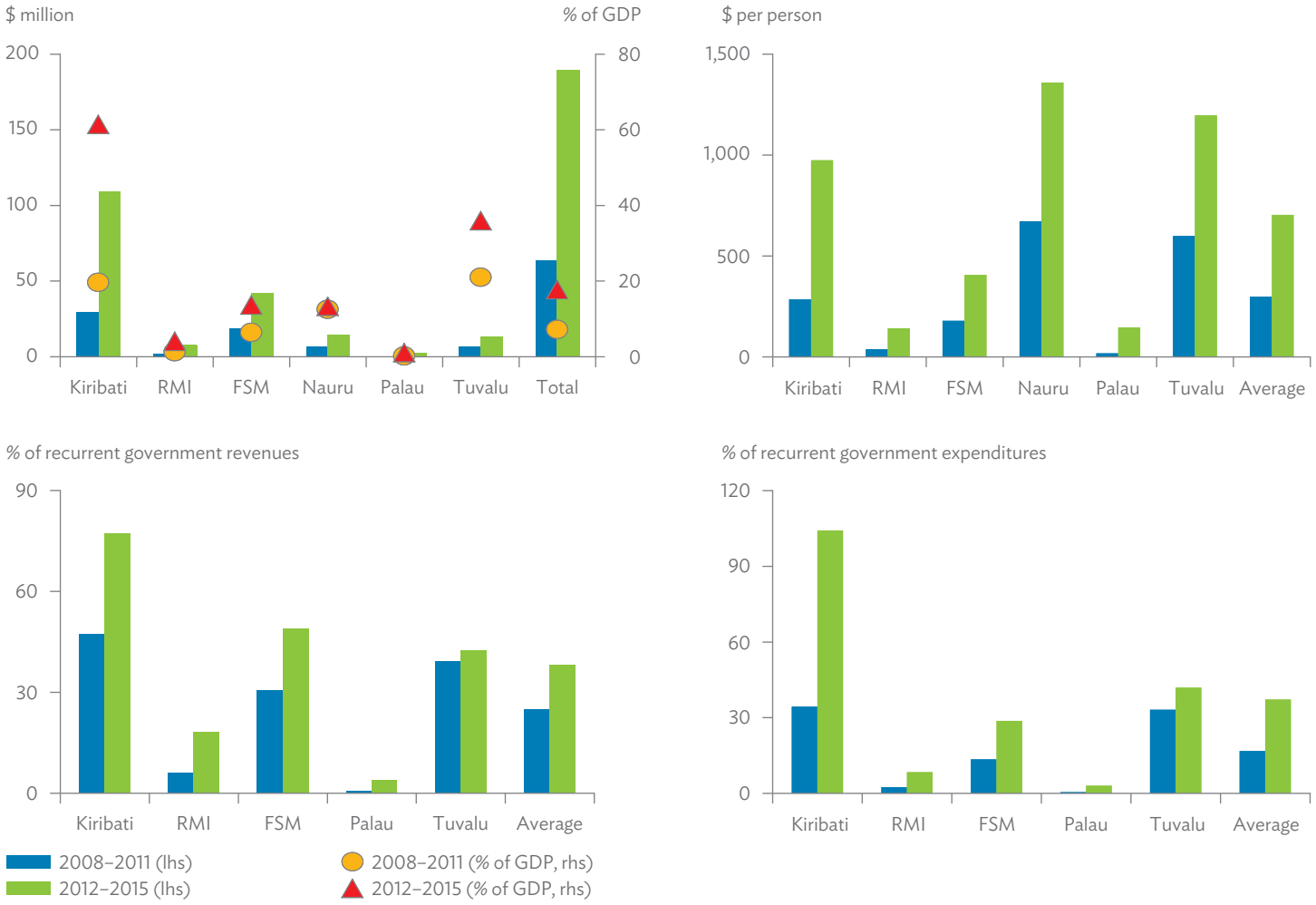
Windfalls from resource exploitation in the Pacific

There is a long history of Pacific countries earning windfall returns from exploiting their natural resources in addition to fisheries. Nauru experienced an economic boom from phosphate mining. PNG and Timor-Leste are currently benefitting from revenues from their oil and gas resources. Timber exports have driven the Solomon Islands economy for years. However, in contrast to mining resources but like forest resources, fisheries represent a renewable resource where the future availability of the resource depends upon current extraction rates. Accordingly, the establishment of a sound management and regulatory regime able to invest or save higher revenues efficiently is essential to maximizing income from fisheries and sustaining fish catch over the long run.

Concerns about the intergenerational distribution of the benefits derived from the use of the resources can be addressed through measures that promote resource sustainability. While, in the case of nonrenewable resources (like mined metals and energy), intergenerational equity relates to ensuring future generations can share in the benefits arising from exploitation of the resource, in the case of fisheries the concept requires management of harvest rates to ensure fisheries resources remain available to future generations. Another characteristic of fisheries resources is that production from fisheries is notoriously uncertain due to the vagaries of weather, climate-related factors (e.g., El Niño and La Niña), and fish migration patterns cause huge fluctuations in fish stocks and

Managing rising fisheries license revenues in the Pacific

Figure 2: Relative Importance of Fishing License Revenues (2008–2011 versus 2012–2015)



FSM = Federated States of Micronesia, GDP = gross domestic product, lhs = left-hand scale, rhs = right-hand scale, RMI = Republic of the Marshall Islands.
Source: ADB estimates based on data from national sources.

harvests over time. This raises difficulties to fishing operators and governments planning fishing efforts and license revenues.

Fluctuation in license revenue is a particular concern for small Pacific island economies, where such revenues can represent a large percentage of total government revenue and alternative sources of revenue are limited. On average, fishing license revenues in 2012–2015 were 38.2% of current government revenues, from 24.8% in 2008–2011. In the case of Kiribati, this ratio was nearly 90% in 2015.

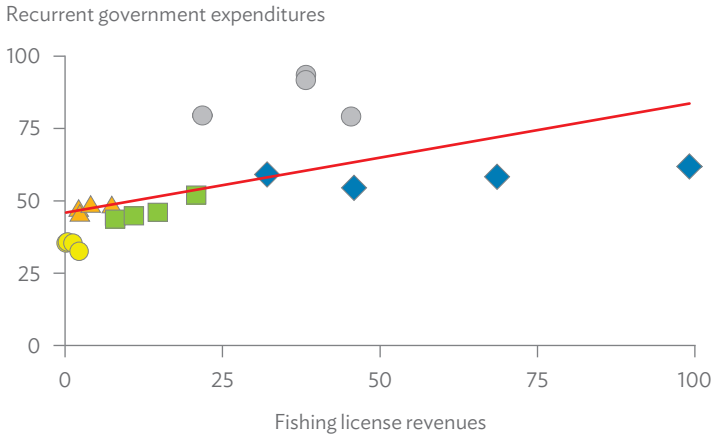
Pacific governments have an interest in maintaining steady expenditures over time in order to provide stable jobs to public employees and ensuring that basic public services like schools, policing, and infrastructure services are continuously available. Governments have used a number of measures to smooth revenues over time including establishing trust funds, establishing credit lines based on their national resources, and priority budgeting that protects expenditures that would suffer from short-term interruptions.

Depositing revenues in public trust and sovereign wealth funds is the most common way governments transfer windfalls over time and minimize near-term macroeconomic disruptions (e.g., inflation and exchange rate appreciation). Good governance principles for trust funds are well established and the history of trust funds show that, where sound governance systems have not been adopted, trust funds have inevitably failed. The Pacific has examples of successful funds that have been sustained over the long term whose governance practices should be emulated.

Other prudent uses of higher fishing license revenues include funding lasting investments to spur growth, paying down fiscal deficits, increasing deposits into sovereign wealth funds, or some

Managing rising fisheries license revenues in the Pacific

Figure 3: Correlation between Fishing License Revenues and Recurrent Government Expenditures (% of GDP)



Source: ADB estimates based on data from national sources.

combination of such actions. Prioritizing expenditures from fishery revenues on capital investments with long-term returns can satisfy concerns about intergenerational equity and generate additional sources of government revenue in the future. However, capital projects are largely financed with development partner assistance among the countries considered in this brief.

Efforts to link fishing license revenues to fisheries development, on the grounds that the activity that generates the revenues should benefit from those revenues, is undermined by the fungibility of government resources. Such prioritization of particular investments may also violate the principle that investments should go to activities that provide highest rates of return.

Political incentives to spend fishery revenues on recurrent expenditures discourage savings in trust funds and long-term investments. Identifying and planning worthy capital projects can be challenging, while the immediate political benefits of spending revenues on increased public employment creation or public salaries can be difficult to resist. Fiscal data from some of the Pacific governments most dependent upon fisheries revenues indicates that recent rises in fishing license revenues have been accompanied by an increase in current government expenditures. The next section reviews spending by selected Pacific governments that have received large incomes from fishing license revenues.

Where have the higher fishing license revenues gone... so far?

The sharp rise in fishing license revenue collections following the full implementation of the VDS in 2012 has substantially expanded the fiscal space available to participating countries. These initial years of the ongoing windfall in fishing license fees provide a useful reference as to how fiscal and economic policies of the Pacific governments have been affected by this sudden boost in revenues.

A simple scatterplot using panel data from Kiribati, the RMI, the FSM, Palau, and Tuvalu shows relationship between higher fishing license revenues and recurrent government spending (both expressed as ratios to GDP) during the period from 2012 to 2015 (Figure 3). Deeper country-by-country examination yields more nuanced assessments of actions and policies during the boom.

Kiribati

As the country with, by far, the largest EEZ among the PNA (and the 12th largest globally at over 3.4 million square kilometers—about the size of India's land area), Kiribati has seen the most dramatic rise in fishing license revenue collections. From an average of $29.4 million from 2008 to 2011, fishing license revenues soared to an average of $109 million from 2012 to 2015. Collections in 2015 alone amounted to $164 million, equivalent to a staggering 99% of that year's GDP.

Fishing license collections have helped reverse Kiribati's fiscal position from previous deficits to rising surpluses equivalent to 10% (2013), 23% (2014), and 48% (2015) of GDP. Expenditure restraint was also an important contributor to this outcome, with recurrent spending barely increasing in proportion to GDP even as fishing license revenues boomed (Figure 4). Capital expenditure is almost fully development partner-financed.

Further, these fiscal surpluses allowed the government to deposit increasing amounts into the Revenue Equalization Reserve Fund (RERF). In 2013 and 2014, deposits were not large enough to fully offset annual drawdowns, but nonetheless helped reduce net RERF withdrawals. Deposits from the large fiscal surplus in 2015, however, allowed for a net deposit amounting to around $40 million, resulting in the first replenishment of the RERF in at least 15 years. Building up the RERF is central to Kiribati's long-term fiscal sustainability, and the prudent use of fishing license revenues has so far contributed significantly to this end.

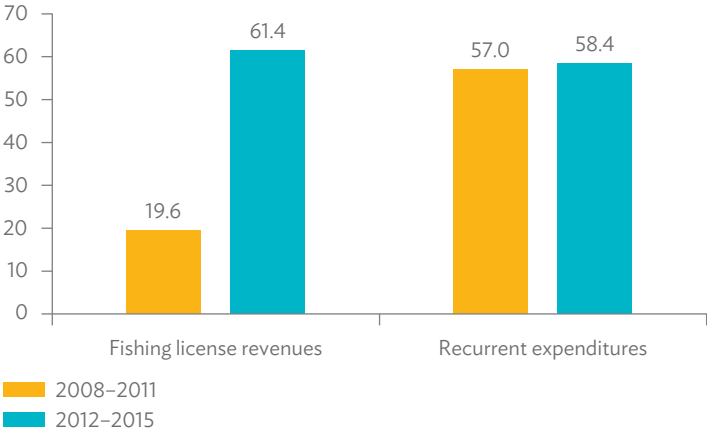
Tuvalu

The ratio of fishing license revenues to GDP in Tuvalu is second only to Kiribati. From the equivalent of 21% of GDP in 2008–2011, fishing license revenues rose to 36% of GDP in 2012–2015. Higher revenues have helped support fiscal surpluses over the past 4 years, rebuilding the country's buffers in the Tuvalu Trust Fund. However, recurrent expenditures as a proportion of GDP have also increased to an average of 86% in 2012–2015, about 15 percentage points higher than prior to the full implementation of the VDS.

Although allocations for what could be considered as human capital investments (such as education-related travel, and funding for the Tuvalu Medical Treatment Scheme) have increased, there has also been a notable rise in the public wage bill. Total spending on public salaries and wages increased by 3% in 2013, jumped by 19% in 2014, and is estimated to have risen by a further 8% in 2015. Fishing license revenue collections in 2015 were about A$8.4 million higher than in 2012 and, over this period, the public wage bill increased by

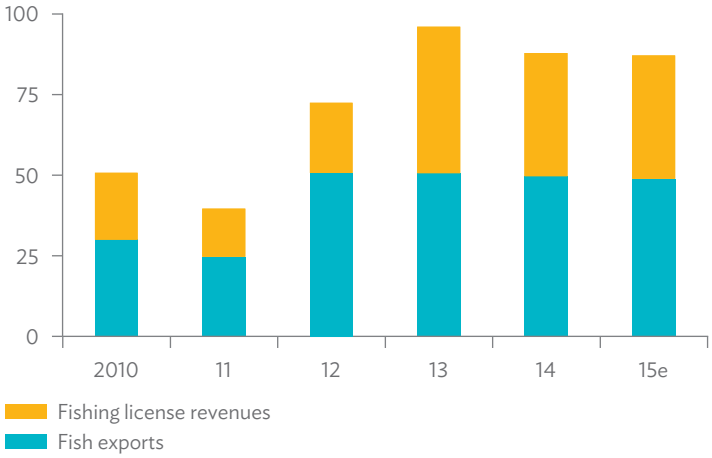
Managing rising fisheries license revenues in the Pacific

Figure 4: Kiribati: Fishing License Revenues and Recurrent Government Expenditures (% of gross domestic product)



Source: ADB estimates based on Kiribati national budget documents (various years).

Figure 5: Tuvalu: Earnings from Fisheries (% of gross domestic product)



Sources: International Monetary Fund. 2014. *Tuvalu: 2014 Article IV Consultation—Staff Report.* August. Washington, DC; and ADB estimates.

almost A$4 million (corresponding to 47% of the increase in fishing license revenues). In this context, some expenditure reprioritization may be called for to promote intergenerational equity in the use of fishing license revenues.

In addition to receiving higher fishing license revenues, Tuvalu has also engaged in joint ventures with foreign fishing companies to stimulate its fisheries exports (Figure 5). The relation of these joint ventures to the VDS revenues is unclear from available information, but by providing the government more resources, license revenues will likely help finance the government's stake in these joint ventures.

North Pacific economies

Compared with Kiribati and Tuvalu, fishing license revenues account for relatively smaller shares of GDP in the North Pacific. In the RMI, this share increased from 1.2% in FY2008–FY2011 (ended 30 September for the RMI, the FSM, and Palau) to 4.0% in FY2012–FY2015. Fishing license revenues have remained a minimal contributor to the Palau economy, with their share of GDP rising from 0.2% in FY2008–FY2011 to 1.0% in FY2012–FY2015. Palau's fishing license revenue collections are threatened with further stagnation following the government's announcement of plans to convert 80% of its territorial waters into a marine sanctuary, which would discourage commercial fishing. The FSM economy has been relatively more dependent on fishing license revenues, whose share of GDP averaged 6.3% in FY2008–FY2011, and then increased to 13.6% in FY2012–FY2015.

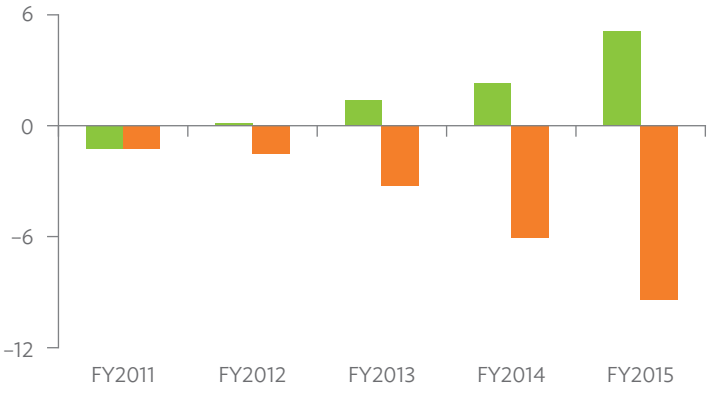
Nevertheless, fishing license revenues have helped avert budget deficits in the RMI and especially the FSM, and amplified budget surpluses in Palau. Recent data for the FSM suggests that fiscal resources other than fishing license revenues have been declining in FY2012–FY2015, and fishing license revenues were solely responsible for the budget surpluses realized during this period. To illustrate, the rising overall fiscal surpluses recorded by the FSM from FY2012 to FY2015 would have been reversed to increasingly large deficits had fishing license revenues remained at around pre-VDS levels (Figure 6). Expenditure compression to reduce deficits may not have been a practicable option under such a counterfactual scenario, as a dearth of projects already cut capital spending sharply, which led to economic contractions in each of the 4 fiscal years. Weak private sector activity and limited opportunities for investment leave fiscal policy as the main source of economic stimulus. This highlights the growing importance of fishing license revenues to the FSM's long-term fiscal sustainability, particularly against the backdrop of the looming challenges coming from the expiration of its Compact Agreement with the United States in 2023.

In the RMI, current expenditure generally followed trends in fishing license revenue collections in FY2012–FY2015. Among current expenditure line items, subsidies to state-owned enterprises (SOEs) most closely tracked fishing license revenue movements, but their share of current expenditures averaged only 8.9% over the period. In contrast, current expenditure allocations in the FSM increased alongside fisheries license revenues, while capital expenditures declined in FY2012–FY2015. Trends in salaries closely followed movements in fisheries license revenues. Compared with the other two North Pacific economies, Palau's fiscal movements appear to be much less sensitive to changes in fishing license revenue collections. Trends in fishing license revenue inflows did not coincide with those in public expenditures.

The fiscal space generated by recent dramatic increases in fishing license revenue collections has allowed the RMI to make deposits into its Compact Trust Fund (CTF) in FY2012 and FY2015. Each of

Managing rising fisheries license revenues in the Pacific

Figure 6: Federated States of Micronesia: Fiscal Balance (actual vs. counterfactual scenario, % of GDP)



FY = fiscal year, VDS = vessel day scheme.
Source: ADB estimates based on data from national sources.

the three North Pacific economies has a CTF, which was established to support fiscal self-sufficiency after an economy's Compact of Free Association with the United States—and the accompanying compact grants—expires in 2023. However, available data shows that the RMI's average annual deposit in FY2011–FY2015 was only slightly higher than the negligible level in the previous 5-year period (FY2006–FY2010). Palau's annual average deposit for FY2011–FY2015 was lower than that realized in FY2006–FY2010.

Fiscal surpluses generated from higher fishing license revenues have enabled the FSM to make contributions of $7 million in FY2013 and $30 million in FY2014 into the FSM Trust Fund. These deposits were consistent with the International Monetary Fund analysis showing that the FSM needs to make deposits into its national trust funds equivalent to around 7.5% of GDP per annum to generate sufficient fund resources to replace expiring financial assistance from the United States under its Compact of Free Association. Sound management of rising revenues from fishing licenses is an important component of a broader fiscal strategy, coupled with pending tax reform and expenditure consolidation, for the FSM to move toward fiscal self-sustainability after the expiration of the Compact in 2023.

Conclusions

The success of the VDS has been facilitated because the PNA covers a substantial proportion of waters in which skipjack tuna are fished globally, but has been an achievement in tangible regional cooperation as parties have been able to agree on and generally enforce a regional regulatory arrangement. Rising vessel day fees have seen Pacific countries' fishing license revenues increase more than 400% between 2011 and 2015.

The sharp increases in fishing license revenues have enabled countries considered in this brief to: (i) improve their fiscal positions, (ii) increase savings in public trust funds, and (iii) increase government expenditure—particularly investments in human capital.

Reducing fiscal deficits has remained the order of the day in most of the countries receiving large increases in fishing license revenues. Fiscal positions of all five countries studied improved. In Kiribati, the higher revenues enabled the government to go from running chronic deficits to realizing rising surpluses in 2013–2015. Tuvalu's fiscal surpluses have been underpinned by rising fisheries license revenues. In the North Pacific, higher revenues moved the RMI and FSM governments from deficit to surplus positions, and boosted prevailing surpluses in Palau.

Properly managed public trust funds and sovereign wealth funds can be a useful vehicle for improving public financial management. Funds can be used to smooth expenditures over time, which is important given volatility in export revenues, fish harvest, and disaster-related shocks. The Santiago Principles provide guidance on international good practice for trust fund management, which include establishing a politically independent fund governance structure and setting rules for withdrawals and transfers from funds to the national budget.

All five countries examined used portions of the license revenues to increase national savings through trust fund deposits. In Kiribati, the sharp rise in fishing license revenues was used to make a net deposit into the RERF. Fiscal buffers were restored in Tuvalu using its higher fishing license revenues. The RMI and Palau used portions of their higher fishing license revenues to make deposits into their compact trust funds. Fiscal surpluses generated from higher fishing license revenues have enabled FSM to make contributions into the FSM Trust Fund. Nauru established a new national trust fund to save higher revenues from a variety of sources, including its sharply increasing fishing license revenues.

Countries examined generally showed expenditure restraint in the face of rising revenues. Recurrent spending by the Government of Kiribati largely held steady. Tuvalu's recurrent expenditure increased by roughly 15% compared with the pre-VDS period, with notable increases in education-related travel, funding for its medical treatment scheme, and the public wage bill. Recurrent spending in the RMI and FSM broadly tracked increases in fishing license revenues. Palau's recurrent spending actually declined as a share of GDP while fishing license revenues increased.

Since revenue increases are derived from a shift to a new licensing regime under the VDS, annual collections are likely to be sustainable at their current high levels provided regional cooperation and fisheries conservation agreements remain effective. This, in turn, allows for higher investment and spending going forward. In this context, expenditure prioritization becomes even more important in maximizing the development impact of public spending financed by license revenues.

Managing rising fisheries license revenues in the Pacific

Increasing investments in human capital, along with small but strategic infrastructure projects, can yield substantial economic returns by enhancing productivity. Further, raising funding for operations and maintenance of public infrastructure (a perennially underfunded expenditure priority) would help extend the productivity-enhancing benefits of existing government facilities. To harness the new opportunities presented by higher incomes from fishing licenses, Pacific governments have to strike a balance between managing fiscal buffers and sensible spending on strategic investments.

Lead authors: Robin Boumphrey, Christopher Edmonds, Rommel Rabanal, Bing Radoc, and Cara Tinio.

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Pacific small-scale coastal fisheries: Strengthening sustainability, food production, and livelihoods

The Pacific region includes some of the world's smallest countries surrounded by a vast ocean (Table 1). Due in part to the relative paucity of land, and agricultural or mineral opportunities, many countries in the region are heavily dependent upon coastal and oceanic fisheries for food security, livelihoods, and government revenues, and as a driver of development.

This brief discusses recent developments in Pacific coastal fisheries, and new approaches to reverse declines amid serious threats to food security and community livelihoods. It provides a summary of the regional context and a case study of Kiribati, where coastal fisheries are fundamental.

Background

Coastal and lagoon fisheries are critically important to many Pacific economies, where populations have little access to other sources of protein. It is estimated that fish provides 50%–90% of animal protein intake in rural areas and 40%–80% in urban areas. Most rural fish intakes (particularly in coral atolls and smaller islands) come from subsistence fisheries.

Many Pacific economies depend heavily on the capacity of their lagoon and coastal fisheries to provide food and livelihoods, and the sustainability of their oceanic fisheries to generate revenue to finance development (Figure 1). Subsistence and small-scale

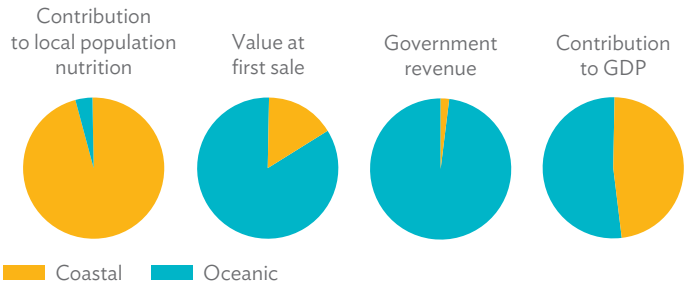
Table 1: Land Areas and Exclusive Economic Zones of Pacific DMCs

	Land area		Exclusive economic zone		
Pacific DMC	sq. km.	% of total	sq. km.	% of total	Ratio of EEZ to land area
Cook Islands	240	0.0	1,830,000	9.7	7,625.0
Fiji	18,274	3.4	1,281,122	6.8	70.1
Kiribati	811	0.1	3,437,345	18.2	4,238.4
Marshall Islands, Rep. of	181	0.0	1,992,232	10.5	11,006.8
Micronesia, Fed. States of	702	0.1	2,992,597	15.8	4,263.0
Nauru	20	0.0	308,506	1.6	15,425.3
Palau	459	0.1	604,289	3.2	1,316.5
Papua New Guinea	462,840	85.2	2,396,575	12.7	5.2
Samoa	2,840	0.5	131,812	0.7	46.4
Solomon Islands	28,900	5.3	1,597,492	8.5	55.3
Timor-Leste	14,870	2.7	77,051	0.4	5.2
Tonga	750	0.1	664,853	3.5	886.5
Tuvalu	26	0.0	751,797	4.0	28,915.3
Vanuatu	12,189	2.2	827,891	4.4	67.9
Total	**543,102**	**100.0**	**18,893,562**	**100.0**	**34.8**

DMC = developing member country, EEZ = exclusive economic zone, sq. km. = square kilometers.
Sources: ADB Basic Statistics 2016 and University of British Columbia Global Fisheries Cluster Sea Around Us Project; www.seaaroundus.org

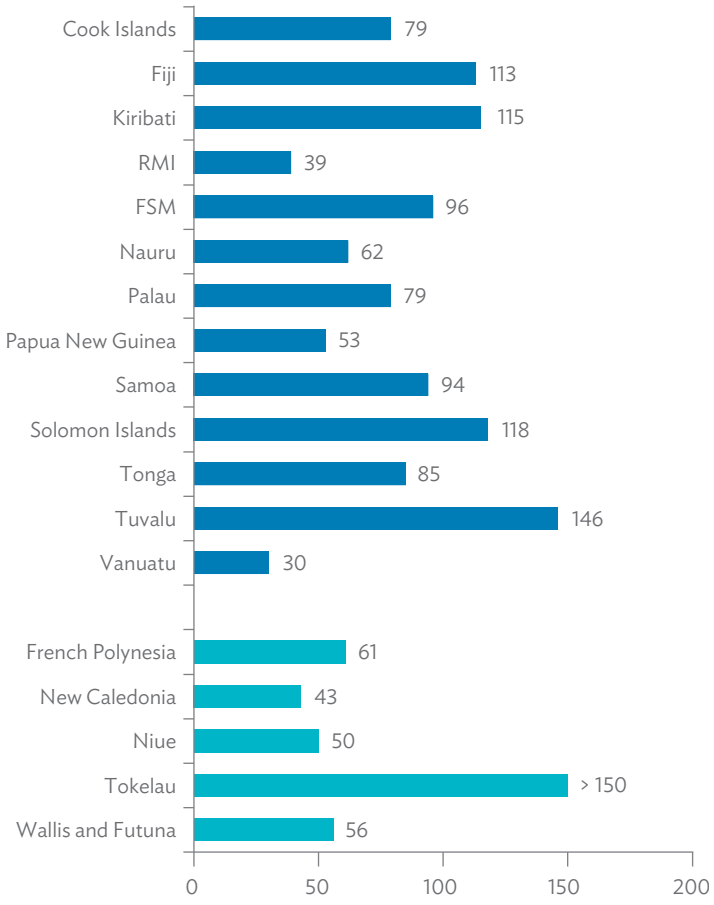
Pacific small-scale coastal fisheries

Figure 1: Contribution of Oceanic and Coastal Fisheries



GDP = gross domestic product.
Source: Secretariat of the Pacific Community.

Figure 2: Fish Consumption
(kilograms per person, per year)



FSM = Federated States of Micronesia, RMI = Republic of the Marshall Islands.
Source: Bell et al. 2009. Planning the use of fish for food security in the Pacific. *Marine Policy*, 33. (pp. 64–76).

commercial artisanal fisheries employ hundreds of thousands across the Pacific (between 250,000 and 500,000 in Papua New Guinea alone). Subsistence fisheries generally employ 10–20 times as many people as commercial fisheries. Despite their significance, estimates of catches and values are still largely based on guesswork.

Coastal and lagoon fisheries target a diverse range of species in various habitats, and resources are commonly overexploited. The Pacific Community has estimated that roughly three quarters of Pacific island coastal fisheries will be unable to meet food demands of local populations by 2030. This is due in large part to population growth (forecast to increase by 50%), low productivity of coastal fisheries (exacerbated by overfishing), and inadequate national food distribution networks. For example, Kiribati is expected to become food insecure before 2035, owing to high population growth and high per capita fish consumption (67 kg per year in urban areas and 115 kg in coastal communities) (Figure 2).

Aquaculture in the Pacific has been expanding, and major activities include culture of pearls, shrimps, tilapia, milkfish, giant clams, and seaweed. Aquaculture has the potential to augment domestic fish supplies and develop niche export industries, but strong competition from Asia and the lack of suitable business and marketing skills pose significant challenges. Many aquaculture operations have utilized government-led development models with limited success.

In summary, the capacity of the Pacific countries' lagoon and coastal fisheries to provide food and livelihoods to significant portions of their populations underpin the long-run viability of many Pacific economies. In 2015, the Pacific Community developed a new strategy for coastal fisheries management. It represents an important shift away from failed centralized models of coastal fisheries management toward a greater focus on community-based approaches that empower and support communities to manage their marine resources within national legislative and policy frameworks.

In the Pacific region, coastal fisheries are harvested and managed under a loose framework of informal and formal governance arrangements. Marine customary tenure provides many communities with rights over reefs and habitats, which enable them to determine and enforce sustainable management measures, and avoid the tragedy of the commons that occurs in open-access fisheries. However, in some cases, marine customary tenure was weakened or destroyed by colonial governments, or undermined by overpopulation and migration. These breakdowns can pose significant challenges to communities and governments as they attempt to respond to overfishing, habitat degradation, and destructive fishing activities.

The strategy recognized that a new approach was required that empowered communities, strengthened informal and formal governance frameworks, and supported a coordinated approach that brought together communities, governments, regional agencies, and other relevant stakeholders. One example of this new approach can be seen in Kiribati, where a collaboration of government, communities, SPC, and university researchers has successfully piloted the Community-based Ecosystem Approach to Fisheries Management in five communities.

Pacific small-scale coastal fisheries

Kiribati

Coastal fisheries in Kiribati are heavily oriented toward subsistence activity, with 60%–70% of production destined for home consumption, and the remainder taken up by various artisanal and small-scale commercial fisheries (Box 1). Production from coastal fisheries in Kiribati is estimated at 13,700 tons, valued at approximately A$34 million (A$2.47/kg). The commercial component has expanded in recent years due to increasing ice production in outer islands and rising interisland trade in coastal finfish and other marine species, supported through government subsidies to generate income-earning opportunities for outer-island communities. Many islands now have cold storage, enabling storage for local sale and shipment. However, a key challenge to the expansion of small-scale commercial fisheries is the ongoing difficulty with distribution networks. These fisheries continue to lack economically efficient mechanisms to transport fish from outer islands to strong markets in South Tarawa.

A 2006 household income and expenditure survey estimated that about 2,000 tons of fish were purchased across Kiribati for $5.9 million (A$2.95/kg), and 3,371 tons of fish valued at A$8.4 million ($2.47/kg) were caught for subsistence purposes. Based on these examples, the cash value of fish was an average of A$2.66/kg. It is worth noting that alternative fish supplies for i-Kiribati would have prices exceeding this by several times.

The high per capita consumption of fish highlights the importance of fish to i-Kiribati. Given the high costs of transporting food to remote locales, fish captured and consumed locally has high value to subsistence households when measured against its replacement cost (i.e., what locals would have to pay for equivalent sources of protein). Current population trends will likely raise challenges in maintaining the current levels of fish consumption per capita. Should fish production decline, subsistence fishers would have to turn to importing other protein. Although the cash economy could benefit from this, the welfare of subsistence households—among the poorest and most vulnerable segments of the population—would be adversely impacted.

Export in Kiribati fisheries has generated revenue, but has also caused significant conservation concerns due to lack of management and over-exploitation. While there are development opportunities, the continuation or expansion of fishing activity requires the implementation of sustainable management arrangements to avoid further declines in productivity.

Community-based ecosystem approach to fisheries management

In 2013, the Government of Kiribati adopted a national fisheries policy, developed through a highly consultative process throughout the populated atolls. The policy aims to take Kiribati toward a vision of a "health marine environment and sustainable fisheries development ... for current and future generations of i-Kiribati."

Strategic Action 4 of the policy prioritizes the development and implementation of community-based approaches to fisheries management. Kiribati also joined a regional initiative (Pacfish) to scale up community-based approaches to fisheries management.

The project focuses on five pilot communities where the people have long-held, strong relationships with their marine environment and remain highly dependent on coastal marine resources for their food and livelihoods. Although the pilot communities are not densely populated, some share lagoons with urbanized areas. Other pilot communities are located far from the main urban center and do not have to share their resources with fishers from more urbanized areas, but they have incentives to sell their marine resources to more urbanized markets, and so they face pressures on the sustainable management of their coastal fisheries.

Building on an earlier situation analysis led by ANCORS, the design of the pilot applied participatory research techniques including village profiles, community mapping, resource matrix exercises, gender-based focus group discussions, and interviews of key informants. Secondary data was also collected because primary data could not be obtained.

Village members identified problems of overharvesting, destruction of marine habitats, destructive fishing methods, decline in marine resources, pollution, lack of livelihood opportunities, change in fishing gear, and pressure to provide for families as factors contributing to the current status of coastal fisheries. The presence of outsiders and potential conflicts with neighboring villages are concerns in all pilot villages. Participants identified (i) strengthening ties across levels of governance, and (ii) supporting by-laws as important for the long-term enforcement of any decisions made at the village level.

The project shared the results of preliminary diagnoses with the five communities in 2015 to validate the findings. Pilot communities then decided to develop community management plans to address fishing concerns, and support long-term community development and conservation goals. By the end of 2015, the five pilot communities had each developed and adopted a community management plan, with the support of the project and government partners.

These are important achievements for Kiribati, demonstrating effective pathways for addressing conservation and management concerns, and developing agreed responses that can realistically be implemented, given the limited governance capacity. As these approaches evolve and communities develop stronger and more informed decision-making processes, opportunities for communities to explore sustainable development grow. The same approaches can be applied to other fields, such as agriculture and ecotourism.

There is now a growing interest among island councils outside the pilot communities to develop similar approaches. There is also a growing recognition that areas facing mixed rural and urban use require a hybrid approach that engages communities in the identification of common goals and shared concerns within a government-led program to develop, adopt, and enforce lagoon-wide conservation and management measures.

Pacific small-scale coastal fisheries

Box 1: Small Scale Fisheries in Kiribati

Composed of 33 coral atolls spread across 4,500 km of the central Pacific Ocean, Kiribati is split into three widely distributed island chains: the Gilbert, Phoenix, and Line islands. Approximately 103,500 i-Kiribati live in one of the smallest countries in the world by land area (about 820 km^2), which at the same time has the 12th largest exclusive economic zone (EEZ) (3.5 million km^2).

Limited agricultural opportunities, due to poor soil conditions and scarce fresh water, mean that i-Kiribati rely heavily on maritime resources for their livelihoods and government revenues. Kiribati's lagoons, coastal waters, and EEZ are home to artisanal and small-scale commercial fisheries, aquaculture operations, commercial joint ventures, and foreign distant water fishing fleets that fish in Kiribati's EEZ and primarily land in foreign ports for foreign markets.

Although lagoon and coastal fisheries provide generally sufficient protein, population pressures and a heavy dependence on imported staple foods (i.e., rice and flour), combined with volatile global food prices, are concerns for the medium- to long-term food security. High population density in South Tarawa, due in part to migration from outer islands, is causing social issues, environmental problems, and overfishing.

The average annual household income of i-Kiribati is approximately A$8,700, of which 46% is spent on food. Kiribati runs a significant merchandise trade deficit financed by earnings from the Kiribati Revenue Equalization Fund, fishing license fees, private remittances, and significant development partner assistance.

Climate change is forecast to alter ocean temperatures and currents, and adversely affect oceanic marine ecosystems. Rising sea surface temperatures and more acidic oceans will likely impact on the growth of hard corals and their complex fish habitats. This is likely to reduce the catches of reef fish in Kiribati, and affect the range of species harvested.

Kiribati suffers from the environmental and socioeconomic challenges caused by high population growth, but still lacks a sufficient skills base to support development. Although fertility rates have begun to fall, they remain high by regional standards and the population is forecast to increase to 130,000 by 2025.

Almost half of i-Kiribati live in the two urban centers: South Tarawa (44%) and Kiritimati (6%). High population density in South Tarawa (2,558/km^2 in the 2005 census; approximately 20 times the national average of 127/km^2) is a significant concern. This has created significant socioeconomic and environmental problems (i.e., lack of land availability, lagoon pollution, rubbish, etc.), and is a key driver of overfishing in the Tarawa lagoon.

A study by the Secretariat of the Pacific Community on food security found that overpopulation in urban centers such as South Tarawa threatens the sustainability of adjacent coastal fisheries. Distant rural communities also increase commercial fishing activities to supply urban markets, raising the risk of overfishing and reducing the supply of fresh fish for local consumption. The study found that consumption of fish in Kiribati was extraordinarily high, with much of it sourced from subsistence fisheries. The study forecasts that Kiribati can meet forecast needs for food, but would probably suffer a shortfall in urban centers due to the difficulties in delivering reef fish from rural areas.

Almost all i-Kiribati have some form of involvement in fishing activities, whether it be artisanal, subsistence, boat-based, shore-based, harvesting, gleaning, processing, or aquaculture. The large majority of i-Kiribati fish for subsistence purposes and/or income on a part-time or full-time basis.

Subsistence life is based in the village where growing or gathering of produce, or fishing to feed their families was the main activity of 39% of males and 36% of females 15 years and older. The proportion of village workers was much higher in the rural (outer islands) areas (51%), than in South Tarawa (urban), where only 20% were village workers.

Subsistence and small-scale artisanal fishing use a variety of gears and vessels, including traditional canoes driven by sail or paddle, plywood canoes powered by outboard motors, and larger outboard-powered skiffs. Tarawa has a fleet of over 1,000 small fishing vessels, many of which are used to fish for tuna and other oceanic species. Tarawa has the largest fleet of all the islands in Kiribati and offers opportunities to transfer fishing pressures away from overfished lagoon fisheries into near shore oceanic fisheries such as tuna and flying fish.

Pacific small-scale coastal fisheries

Conclusion

Government fisheries agencies across the Pacific region have traditionally focused on their oceanic tuna fisheries. This is unsurprising, given that these fisheries provide cash revenue and international engagement. However, the increasing urgency around rising food access challenges and the declining state of many of the region's coastal fisheries require greater prioritization of coastal fisheries—the bread basket for the region.

> "... it is time for governments to ensure an appropriate level of resources to secure the considerable benefits that flow from the sustainable management of coastal fisheries. Ad hoc funding from donors and NGOs is valuable for short-term, project-based initiatives, but is no substitute for the allocation of long-term funding support for coastal fisheries management from government budgets."
>
> A New Song for Coastal Fisheries – Pathways to Change
> The Noumea Strategy

Lead authors: Quentin Hanich, Aurelie Delisle, and Brooke Campbell; Australian National Centre for Ocean Resources and Security (ANCORS).

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Some options for enhancing the vessel day scheme

The Pacific has the largest tuna fishery in the world, with nearly 60% of the global catch coming from the region, and revenues generated per year averaging around $3 billion (Clark and Clark 2014). It is a diverse fishery with resources unevenly distributed across the region. The biggest resource is the skipjack fishery, which is caught primarily within the exclusive economic zones of the Parties to the Nauru Agreement (PNA)—Kiribati, the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM), Nauru, Palau, Papua New Guinea (PNG), Solomon Islands, and Tuvalu.

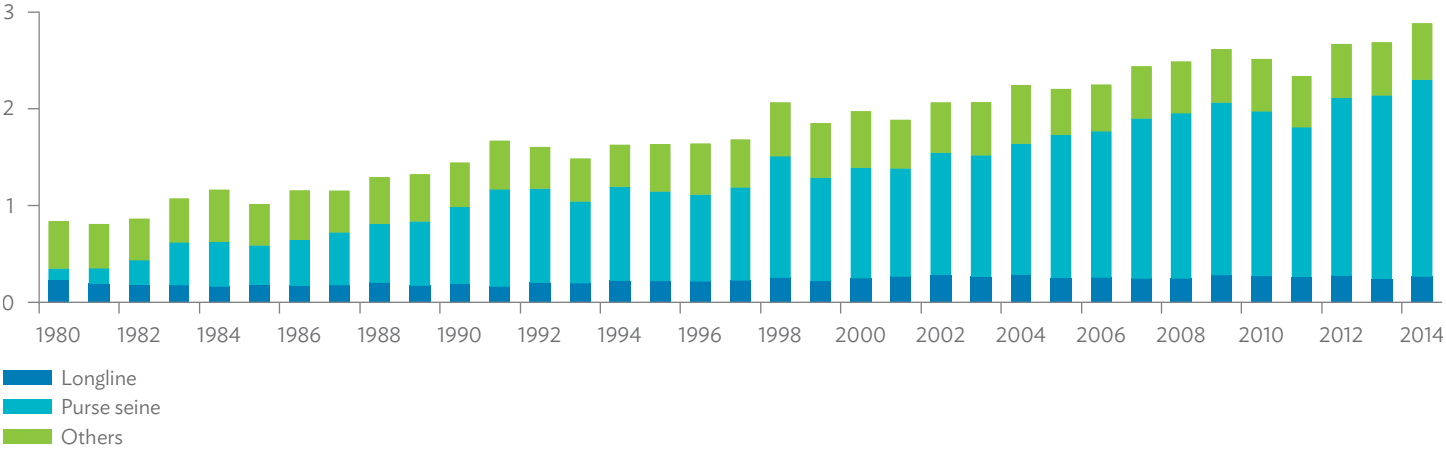
The skipjack is caught by roughly 270 purse seiners, which harvest between 1.0 million and 1.3 million metric tons annually (Figure 1). Purse seiners also capture smaller yellowfin and bigeye tuna as valuable 'bycatch,' as these species school below the skipjacks. The total number of longline vessels, around 5,000, exploit other species of Pacific tuna. These include southern albacore tuna, which is mainly caught in waters around the Cook Islands, Samoa, and Tonga with harvests of around 60,000–130,000 metric tons annually. Yellowfin and bigeye tuna are caught throughout the Pacific with annual harvests of 300,000–500,000 metric tons.

The Asian Development Bank (ADB) has a history of supporting the efforts of Pacific countries to develop and sustain their tuna fisheries. Earlier in its history, ADB had an active project portfolio directly supporting tuna fishery development projects, including tuna canneries and government-backed fishing operations. Appeals for development partner support were frequently based on the rationale that domestic processing merited government financing in order to help capture added value and create jobs, but the rationale for government involvement in what is a private sector activity was lacking. In 1994, ADB approved its last project directly supporting tuna fishery development projects. This included tuna canneries and government-backed fishing operations, but failed for a number of reasons. Issues in efforts to maximize the economic benefits of the tuna fisheries in the Pacific include direct revenue generation, domestic business and employment creation, resource sustainability, and government support. Implementation is also an issue since policies governing tuna fishery initiatives involve different ministries with very limited interactions.

After the mid-1990s, ADB concentrated on more analytical work on fisheries and produced a number of publications. Other multilateral development agencies have also supported efforts to develop the Pacific tuna fisheries. The European Union launched major assistance to the fisheries sector with regional projects in 2005 and 2009.

The vessel day scheme (VDS) established by the PNA has been successful in improving the knowledge base and fostering Pacific tuna fishery development. The purse seine fishery has explored different options to increase fishing revenues, but the biggest jump in revenues came with the introduction of the VDS. Following the full implementation of the scheme in 2012, fishing license revenues have increased by an average of 46% per year, from $60 million to around $450 million—or approximately 13% of the catch value. Another policy brief in this volume (pp. 22–27) characterizes these revenues in detail.

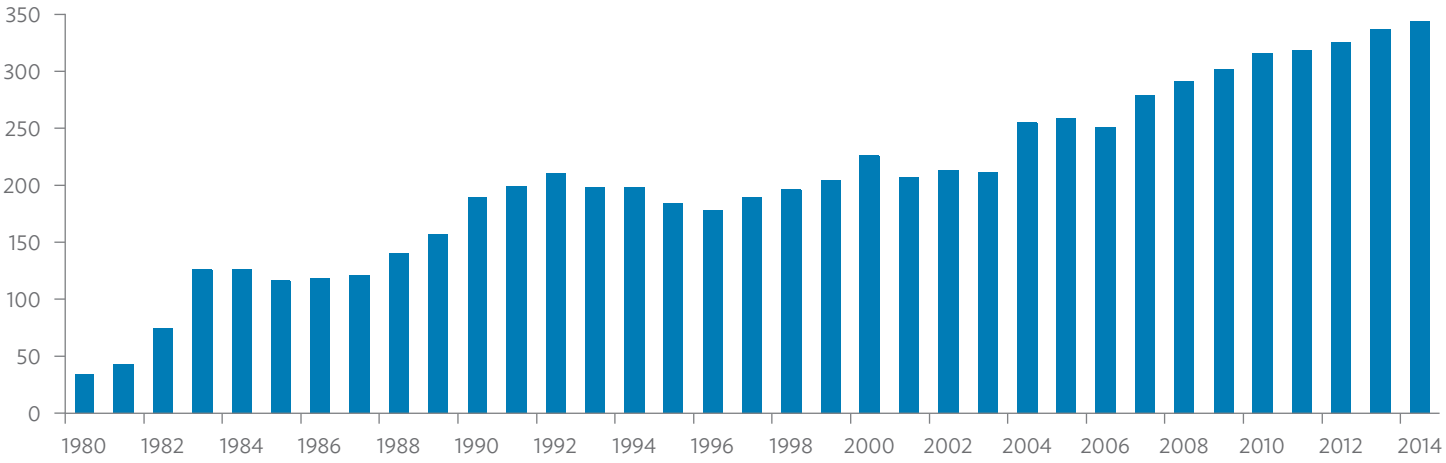
Figure 1: Tuna Catch, by Vessel Type
(million metric tons)



Source: Western and Central Pacific Fisheries Commission. 2015. *Tuna Fishery Yearbook 2014.* Kolonia (October).

Some options for enhancing the vessel day scheme

Figure 2: Purse Seiners Active in the Western and Central Pacific Ocean



Source: Western and Central Pacific Fisheries Commission. 2015. *Tuna Fishery Yearbook 2014.* Kolonia (October).

Under the VDS, total fishing effort was set at 45,000 fishing vessel days. The allocation among PNA members was based on the ratio of each party's historical catch to the total catch in the EEZs of all members. PNA agreed to a minimum price for each fishing day ($8,000 in 2015), but the actual going rate varies according to market conditions. Each country is allowed to sell its fishing days and even trade if the skipjack has moved either east (during El Niño) or west (during La Niña). The catches by each vessel are closely monitored by on-board observers, and the actual fishing days are monitored by satellite using a transponder tracking system. It may be as good a management system as any other in the world, but there is probably scope for further improvements.

The VDS has multiple objectives of enhancing the sustainability of fisheries resources, generating higher direct revenues, and creating domestic value addition and employment opportunities. In recent years, the number of vessels has increased steadily from 251 in 2006 to 344 in 2014 (Figure 2).

The fishing business is a very old enterprise and has become extremely competitive. The operations of Pacific purse seiners and longliners are influenced in varying degrees by flag-state subsidies; fuel subsidies; transfer pricing; aid-for-access deals; illegal, unreported, and unregulated fishing; and forced labor.

Purse seiners are huge investments and have considerable operating costs. One way to maximize revenues is to catch as many juveniles of yellowfin and bigeye tuna as possible by increasing the depth of the seine to catch the schooling yellowfin and bigeye below the skipjack. With juvenile yellowfin and bigeye tuna fetching better prices for prime canning, there are indications that bigeye is being overfished and yellowfin shows similar signs.

The objective of the VDS to create domestic opportunities in PNA countries has proved difficult to achieve. Many proposals have been made to build purse seiner facilities to attract vessels to either be serviced or off-load their catch for canning. However, there are a number of constraints including water scarcity in atoll countries, high labor costs relative to large competitors (e.g., Thailand), seasonality in fish catches, importation of all canning raw materials, and high transport and marketing cost.

A case in point is the loining plant in Majuro. Since Majuro has been a major transshipment port for raw catch, it seemed a good plan to establish a loining plant in Majuro and ship these loins to American Samoa on reduced shipping rates. The PM&O Shipping Line called more or less empty into Majuro en route to American Samoa, where some of the biggest canneries in the Pacific are located. A downturn in the American Samoa canneries' output broke that opportunity; the investor called in the RMI government-backed guarantee.

Purse seine fleets are hovering just above economic viability after Pacific countries have allowed far more vessels into the fishery than necessary. The increase in the numbers of vessels is due to historic players in the fishery. The main fleets are from Japan; the Republic of Korea; the Philippines; Taipei,China; the United States; and Vanuatu, in addition to vessels from 13 other economies.

Among PNA countries, license allocations and negotiations are handled by ministries or departments of fisheries. The advisory role of the Forum Fisheries Agency has been severed and negotiations with distant water-fishing operators now lack transparency. Negotiations also often take place in the operators' country.

Operators are faced with large investments in a fleet, but fishing licenses last for only 1 year. A 1-year fishing horizon is not consistent with a sustainable long-term beneficial partnership between fishers (the distant water-fishing nations) and the PNA countries.

Some options for enhancing the vessel day scheme

Several multilateral organizations, from the World Bank to Conservation International, have attempted conservation efforts through the establishment of protected seascapes, with the involvement of local communities, to promote local growth and food production. However, these fell short of compensating governments from reduced license revenues.

There are several considerations to make the VDS more effective without diluting the prospect of higher fishing license revenues.

1. Each PNA member's vessel day allocation is based on the historical catches, and could equally be expressed in metric tons. It would be straightforward to calculate the optimal number of purse seiners to catch a maximum allowed quota (e.g., 1.2 million metric tons per year).

2. The average catch per purse seine could be auctioned off and be valid for, say, a 5-year period, with the caveat that the Secretariat of the Pacific Community may adjust the total quota based on its scientific stock-assessment model. Under such an agreement, a purse seiner would have a license to catch a certain amount anywhere within the PNA region and not have to negotiate with eight different countries.

3. An added factor to consider is the effect of climate change. All predictions point to a shift from west to east in the abundance and location of the skipjack stocks. This will invariably cause demand for renegotiation of vessel day allocations by eastern-located countries such as Kiribati.

4. The PNA Secretariat could be elevated as the focal agency for licensing and handling of all payments via an international bank. This will improve transparency in the negotiations. License proceeds would then be paid to the ministry of finance of each country. There are other positive side effects. Licensed purse seiners would be effective in policing this scheme. The fleets will return a good profit and PNA countries will have a good formula to achieve a multiyear budget framework.

Despite the VDS' imperfections and its sustainability risks, the scheme has led to a sharp increase in fishing license revenues so there will likely be little appetite to change the scheme drastically. An honest broker offering transparent and safe banking procedures could bring to the negotiating table the ministries of finance and the representatives of the distant water-fishing nations to seriously discuss future license arrangements under the auspices of the PNA Secretariat. To be effective, partnerships among the PNA Secretariat, SPC, the Forum Fisheries Agency, and national governments, as well as several development partners are necessary. In addition, it is important for stakeholders to recognize the inefficiencies inherent in the current VDS.

If this happens, it will be necessary to seek the unbiased blueprint recommendations of economists from outside the Pacific. A model that acknowledges that what is good for the fishers is also good for those who own the fish can hopefully be formulated.

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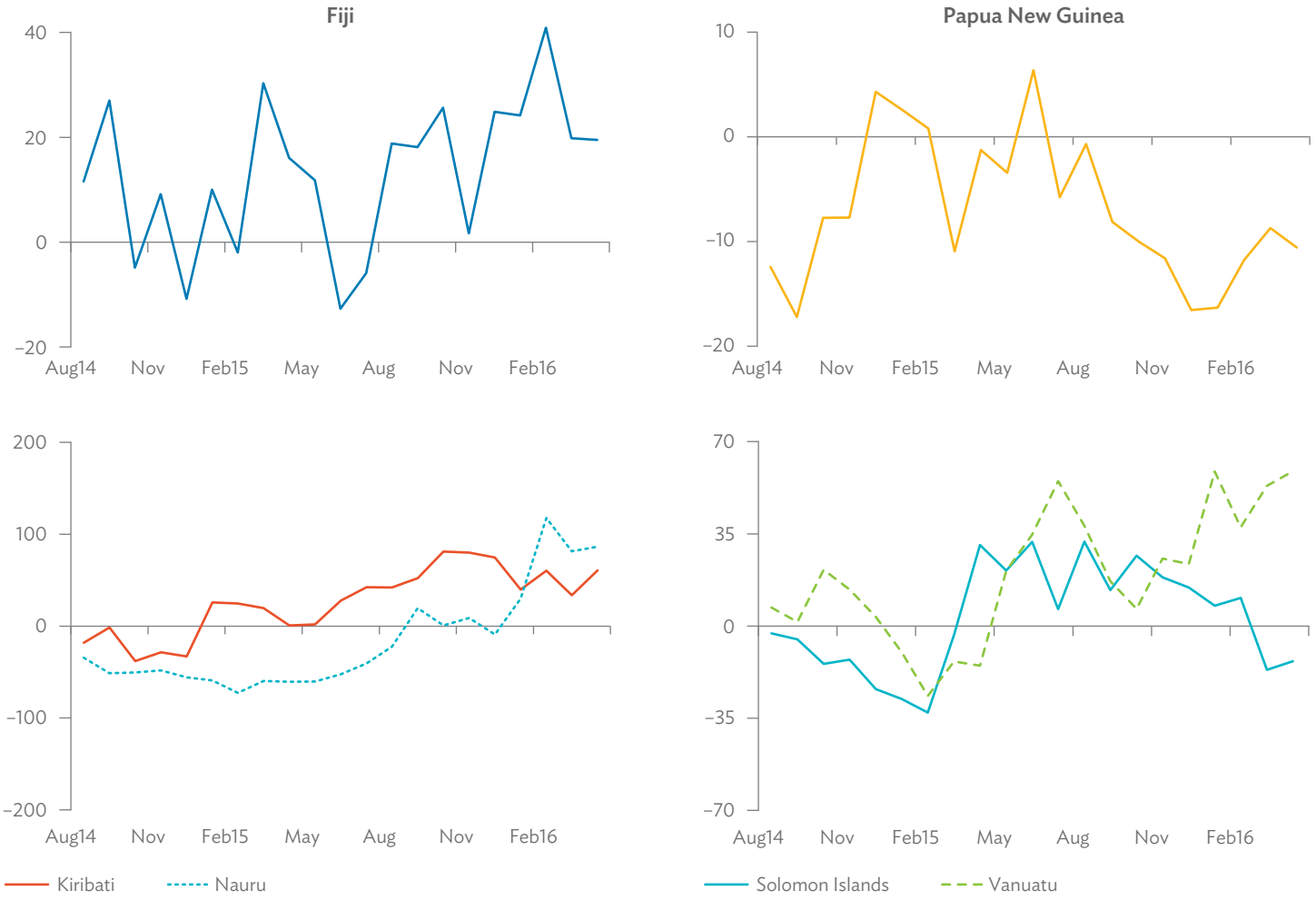
Nonfuel Merchandise Exports from Australia
(A$; y-o-y % change, 3-month m.a.)

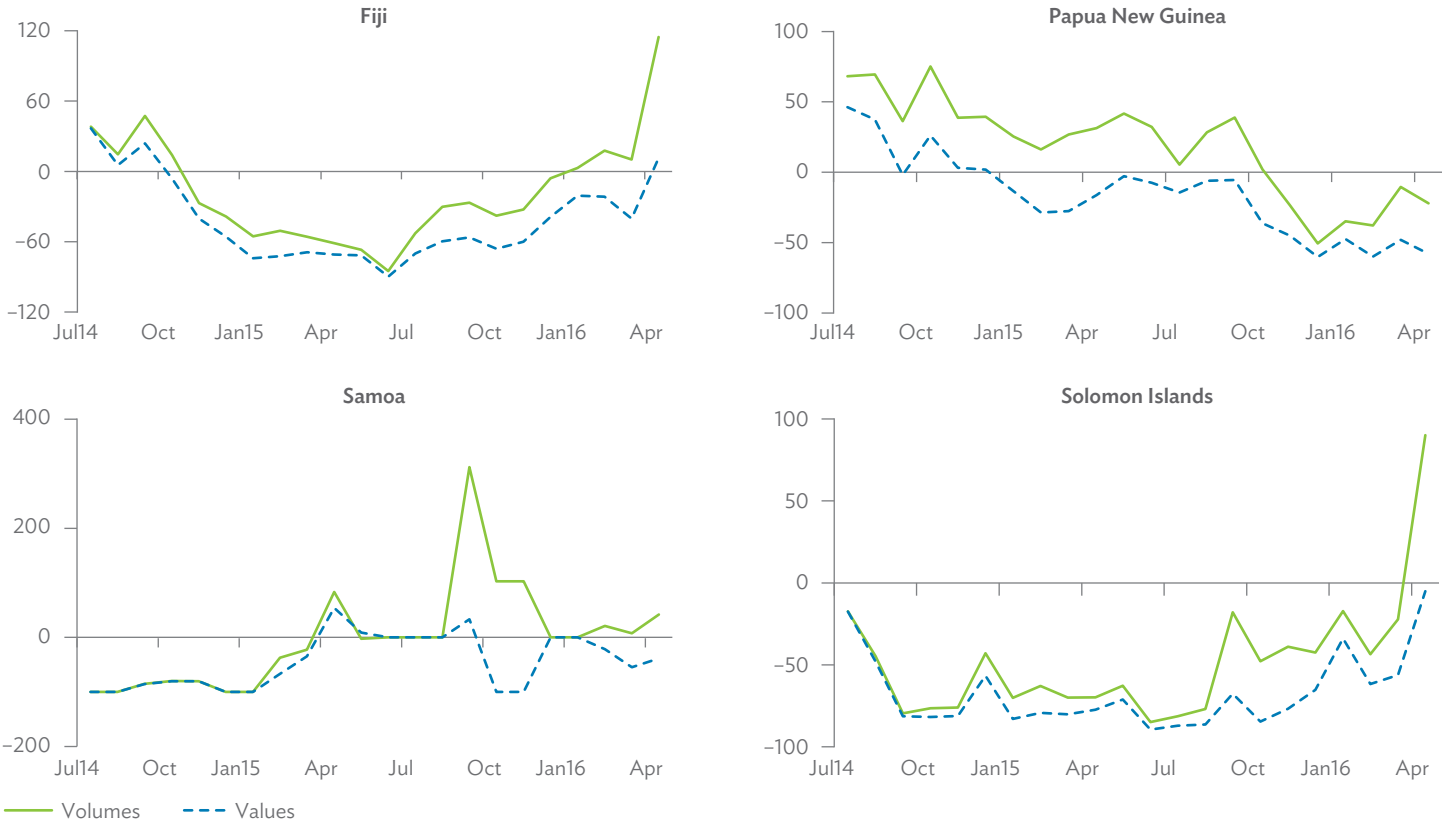


A$ = Australian dollars, lhs = left-hand scale, m.a. = moving average, rhs = right-hand scale, y-o-y = year-on-year.
Source: Australian Bureau of Statistics.

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

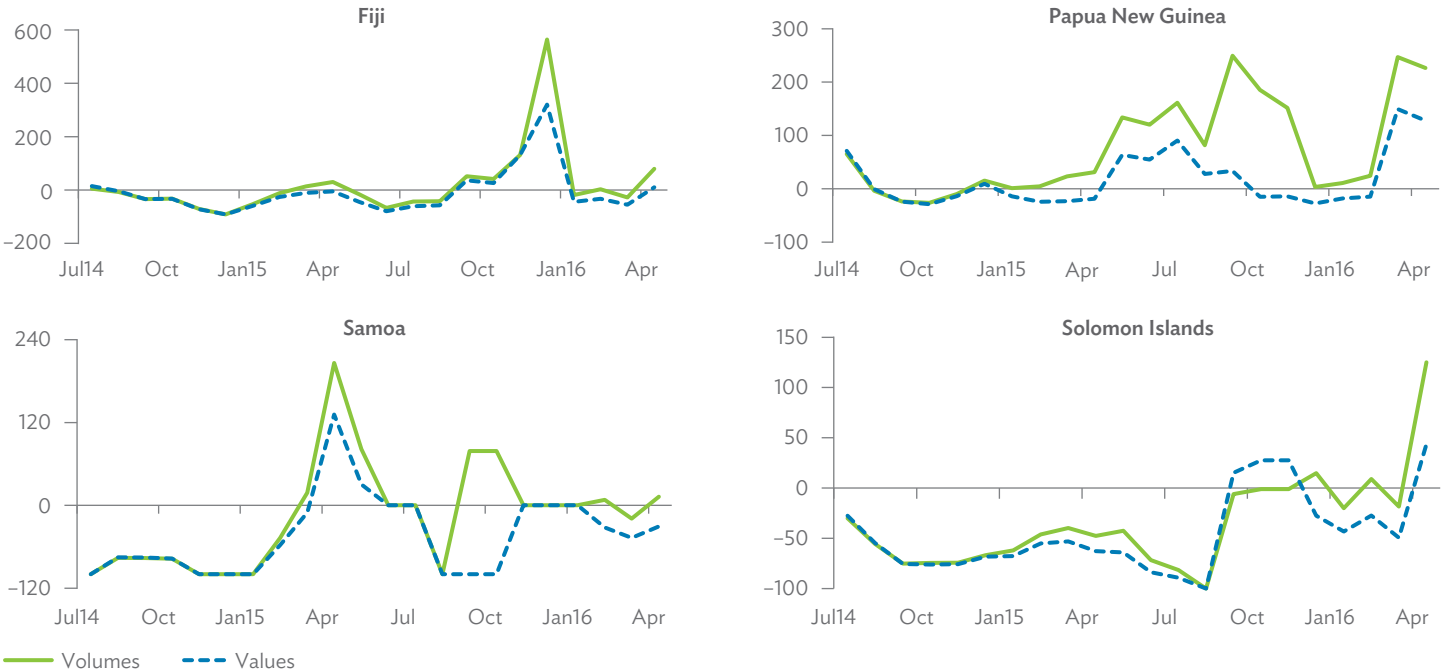
fas = free alongside, fob = free on board, FSM = Federated States of Micronesia, m.a. = moving average, NZ$ = New Zealand dollar, RMI = Republic of the Marshall Islands, US = United States, y-o-y = year on year.
Sources: Statistics New Zealand and US Census Bureau.

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 (%, 2016p)	Inflation (%, 2016p)	Credit Growth[a] (%)	Trade Balance (% of GDP)	Import Cover (months)	Fiscal Balance (% of GDP)
Cook Islands	6.2	1.8	0.7 (Mar 2015)	–28.3 (FY2015e)	—	–1.7 (FY2015e)
Fiji	2.4	3.0	12.4 (Mar 2016)	–20.2 (2015e)	5.5 (Apr 2016)	–1.6 (FY2016e)
Kiribati	1.8	0.7	—	–50.1 (2015e)	—	–1.1 (2015e)
Marshall Islands	1.5	0.5	–0.1 (FY2015e)	–32.5 (FY2015e)	—	2.1 (FY2015e)
FSM	2.5	–0.3	11.3 (FY2014)	–28.0 (FY2015e)	—	5.1 (FY2015e)
Nauru	3.0	6.6	—	—	—	–4.0 (FY2016e)
Palau	3.0	1.5	–3.2 (FY2015e)	–53.7 (FY2015e)	—	4.9 (FY2015e)
PNG	4.3	6.0	3.4 (Dec 2015)	25.2 (2015e)	10.0 (Dec 2015)	–5.0 (2015)
Samoa	3.5	1.0	6.0 (Dec–Q 2015)	–37.0 (FY2015e)	4.3 (Jun 2015)	–4.7 (FY2016e)
Solomon Islands	2.7	4.4	17.2 (Mar 2015)	–3.4 (2015e)	11.1 (Jun 2015)	–1.2 (2015e)
Timor-Leste[b]	4.1	1.2	8.7 (Mar–Q 2016)	–39.8 (2015e)	—	–14.2 (2015e)
Tonga	3.1	2.0	15.0 (FY2016e)	–35.0 (FY2015e)	9.0 (Apr 2016)	–0.2 (FY2015e)
Tuvalu	3.0	2.0	0.8 (2014e)	–31.7 (2015e)	7.9 (2014e)	5.7 (2015e)
Vanuatu	3.5	1.9	4.0 (Dec 2014)	0.0 (2015e)	8.5 (Jun 2015)	7.2 (2015e)

— = not available, e = estimate, FSM = Federated States of Micronesia, GDP = gross domestic product, p = projection, PNG = Papua New Guinea, Q = quarter.
[a] Credit growth refers to growth in total loans and advances to the private sector.
[b] Timor-Leste GDP is exclusive of the offshore petroleum industry and the contribution of the United Nations.
Notes: Period of latest data shown in parentheses; import cover for PNG is months of nonmining and oil imports.
Sources: ADB. 2016. *Asian Development Outlook 2016.* 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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In this publication, "$" refers to US dollars.