ADB Pacific Economic Monitor

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

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Highlights

- **Recent Developments.** Economic growth in the Pacific region accelerated from 5.5% in 2010 to 7.0% in 2011. The major contributors to this performance were Papua New Guinea (PNG), Solomon Islands, and Timor-Leste. However, growth in the Pacific islands also improved, rising from an average rate of 1.3% in 2010 to 3.0% in 2011. Increased value of agricultural production and higher tourist arrivals helped Fiji's economy recover from contraction in 2010, increased phosphate exports lifted Nauru's economy, and increased tourist arrivals contributed to faster economic growth in Palau. Spending related to infrastructure projects raised economic growth in Kiribati, the Republic of the Marshall Islands, the Federated States of Micronesia, and Vanuatu.
- Inflation in the Pacific region rose from 5.6% in 2010 to 8.6% in 2011 due to higher global commodity prices in the first half of the year. Lagged effects of the price increases are still being felt in certain economies.
- **Outlook.** The International Monetary Fund (IMF) projects the global economy will grow by 3.3% in 2012 (down from 3.8% in 2011), driven by ongoing sovereign debt problems and associated effects in Europe, as well as relative stability in other major global economies. Growth in the Australian and New Zealand economies is expected to accelerate as a result of strong demand for exports and expenditure growth related to recovery from recent natural disasters.
- Slower global growth is expected to have modest and largely indirect effects on Pacific economies. Trade, investment, and banking ties between the Pacific economies and their primary economic partners, namely Australia and New Zealand (for the South Pacific) and the United States (for the North Pacific), will determine the magnitude and timing of impacts.
- ADB expects economic growth in the Pacific region to decelerate to 6.0% in 2012 and 4.1% in 2013. Depletion of oil reserves and easing of international commodity prices is expected to slow PNG's economic growth. Reduced logging production, coupled with the completion of construction projects related to logging and mining, is seen to temper growth in Solomon Islands, although this is likely to be partially offset by a ramping up of gold production. The January 2012 floods in western Fiji adversely affected agricultural production, and could weaken tourism prospects.
- Inflation in the Pacific region is expected to run at 6.6% in 2012 due largely to an easing in international food prices. International fuel prices are expected to remain stable, but are particularly at risk due to geopolitical concerns in the Middle East. Appreciating Pacific currencies may mitigate inflationary pressures.
- **Economic policy and management.** Four articles consider tools and processes for efficient management of budget resources. The first article outlines fiscal management models, discusses the structure and application of this simple accounting framework, and explains how such models have been used to highlight budget trade-offs over the long term. The next article reviews recent progress and challenges in implementing multiyear rolling budget frameworks in the Pacific. Another article highlights the high costs associated with countries' failure to provide adequate funding for road maintenance and shows the long-term budget advantages of proper resourcing of road maintenance in Timor-Leste. A note discussing the implications of recent sovereign wealth fund management legislation on future development funding in PNG concludes this issue.

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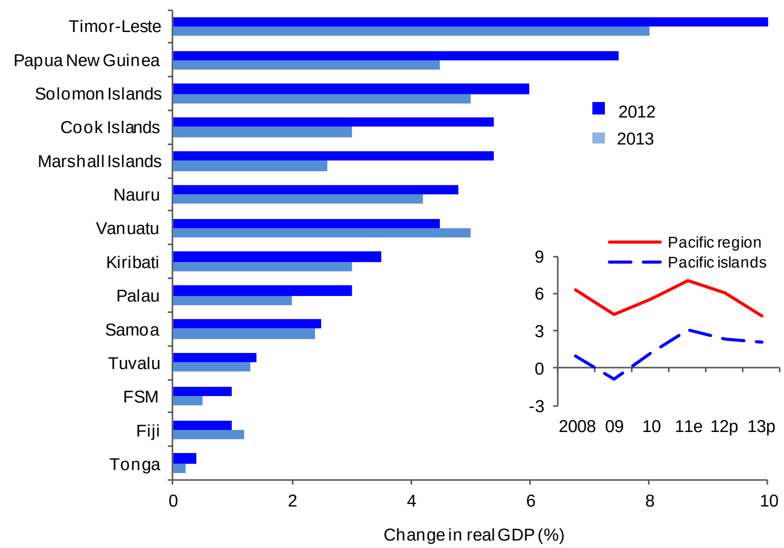
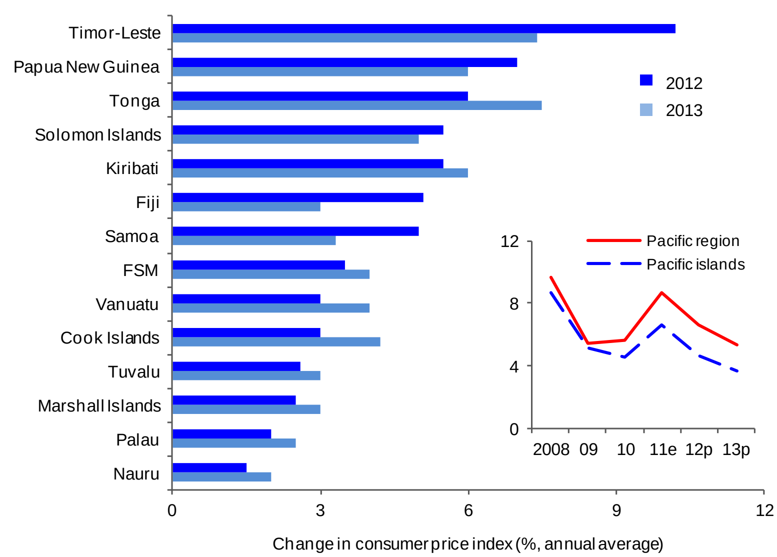
Abbreviations

$	US dollar, unless otherwise stated
2WD	two-wheel drive vehicle
ADB	Asian Development Bank
A$	Australian dollar
e	estimate
F$	Fiji dollar
fas	free along side
fob	free on board
FMM	fiscal management model
FSM	Federated States of Micronesia
FY	fiscal year
GDP	gross domestic product
IMF	International Monetary Fund
IRI	international roughness index
lhs	left hand scale
LNG	liquefied natural gas
m.a.	moving average
MTB	medium-term budget
NZ$	New Zealand dollar
p	projection
PEM	Pacific Economic Management
PFTAC	Pacific Financial Technical Assistance Centre
PNG	Papua New Guinea
NRA	National Roads Authority
r	revised
rhs	right hand scale
RMI	Republic of the Marshall Islands
SWF	Sovereign Wealth Fund
US	United States
VAT	value-added tax
y-o-y	year-on-year

Asian Development Bank Projections
GDP growth



Inflation



Note: Projections are as of March 2012 and refer to fiscal years. Regional averages of gross domestic product (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 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 percentage changes to reduce the impact of seasonality, and 3-month moving averages 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 (FSM), and Palau; and 31 December elsewhere.

International and regional developments

Slower global growth expected in 2012

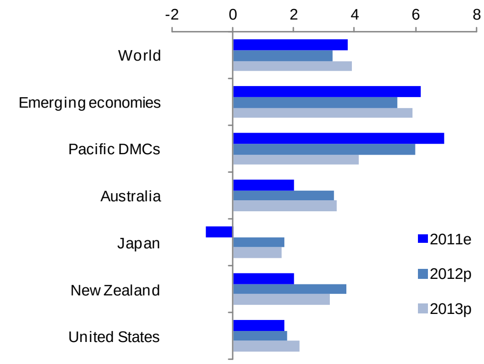
- Global economic growth is projected to slow to 3.3% in 2012 (down from 3.8% in 2011, according to the IMF's *World Economic Outlook Update*, January 2012), driven by ongoing sovereign debt problems, spillover effects in Europe, and relative stability of growth in other major global economies (the People's Republic of China, Japan, and the United States). In Europe, fiscal consolidation, credit tightening, and continued high interest rates on sovereign bonds are expected to lead to very low growth or even contraction as progress is made toward resolution of ongoing sovereign debt problems. The United States (US) economy is expected to grow at about the same pace as in 2011, as planned fiscal tightening appears likely to be postponed and the country's slow economic recovery continues. The economy of the People's Republic of China (PRC) is expected to continue to grow rapidly, although at a lower rate than in 2011, continuing the trend of moderating growth experienced in recent years. Japan's economy also anticipates stronger growth as the country continues its recovery from the March 2011 earthquake and tsunami. Growth in the Australian and New Zealand economies is expected to accelerate as a result of strong demand for exports and expenditure growth related to recovery from recent natural disasters.

- Monetary authorities in the advanced economies are continuing their accommodative monetary policy stances. In December 2011, the European Central Bank provided unlimited 3-year loans to address funding constraints in European banks. This resulted in the decline of short-term interest rates and yields for Italian and Spanish government bonds. Meanwhile, the US Federal Reserve signaled that the benchmark interest rate will likely be kept at low levels at least until late 2014—18 months longer than its earlier pronouncement—and set a 2% inflation target. The Bank of England and the Bank of Japan indicated they will be purchasing more outstanding government bonds in an effort to pump more liquidity into their economies. The Bank of Japan also set an inflation target of 1% in the near term to combat deflation and promote growth.

- Strong GDP growth (8.2%) is projected to continue in the PRC in 2012, although this represents a slowing of growth from recent years. Slower export growth and lower investment along with the lagged effects of measures to stem inflationary pressures (e.g., tighter credit) appear to be driving the moderation of growth. Japan is expected to grow by 1.7% in 2012, a strong rebound from 2011's economic contraction (–0.9%) as a result of post-disaster reconstruction and a recovery in exports, partly due to Bank of Japan's efforts to address the appreciation of the yen.

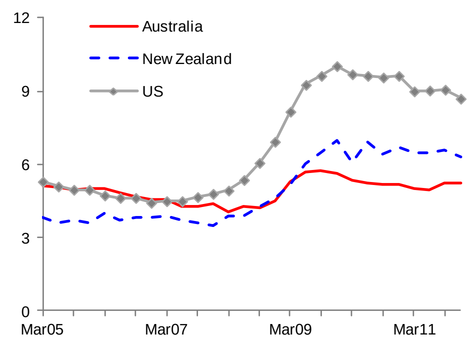
- The US economy continued its slow recovery from the global financial and economic crisis (2008–09), growing by 1.7% in 2011. IMF predicts US economic growth of 1.8% in 2012. From October 2011 to January 2012, 715,000 new jobs were created and unemployment fell to 8.3%. Serious measures to address the national debt appear likely to be postponed until after the November 2012 national elections and because of concerns that fiscal contraction could endanger the fragile recovery.

GDP growth
(%, annual)



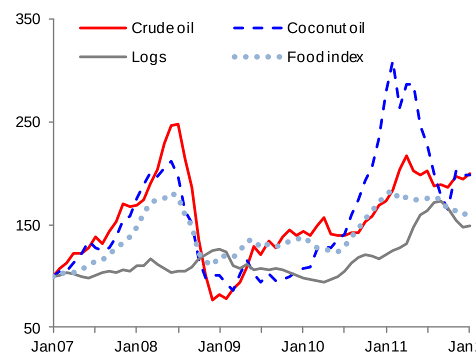
DMC=developing member country, e=estimate, p=projection
Sources: IMF. 2012. *World Economic Outlook Update (January 2012 and September 2011*) and ADB estimates.

Unemployment in key economies
(% of labor force)



Sources: Australian Bureau of Statistics (ABS), Statistics New Zealand, and US Bureau of Labor Statistics.

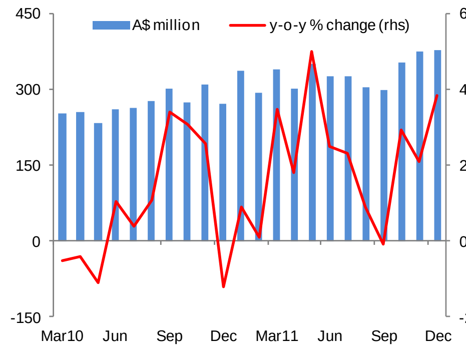
Commodity prices
(Index: January 2007=100)



Source: World Bank Commodity Price Data (Pink Sheet).

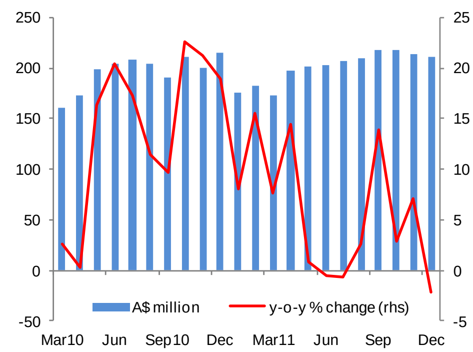
International and regional developments

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



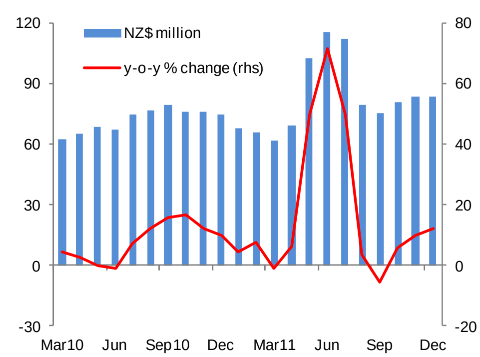
Source: ABS.

Pacific non-fuel imports from Australia
(3-month m.a.)



Source: ABS.

Pacific non-fuel imports from New Zealand
(3-month m.a.)



Source: Statistics New Zealand.

- After contracting in the first quarter of 2011, Australian economic growth rebounded in subsequent quarters, and growth of 2.0% was recorded for the year. A strong acceleration in growth is expected in 2012, with GDP projected to grow by 3.3%—driven by higher mining investment and recovery in mining production.
- Growth in the New Zealand economy picked up in 2011, partly due to favorable commodity prices and weather conditions that boosted exports as well as increased tourism receipts. Post-Canterbury earthquake reconstruction is expected to boost the economy over the next 2 years, and growth is expected to reach 3.8% in 2012 (compared with 2.0% in 2011).
- Slower global growth is expected to indirectly affect the Pacific economies. These economies are most closely linked to the Australian and New Zealand (for the South Pacific) and US (for the North Pacific) economies. The repercussions of slower global growth could include temporary declines in Pacific trust fund values, possible falls in tourism from some source markets, and weaker trade and investment (through linkages between Europe and the Pacific's primary economic partners). For example, if the uncertainty in Europe translates into slower growth in Asia (particularly in PRC), lower demand for internationally traded commodities may result in weaker growth in Australia, which in turn will affect economic prospects across the Pacific. Australian and New Zealand commercial banks, which are dependent on international credit markets, are also the major providers of banking services in the Pacific.

Continued moderate inflation and commodity price rises

- Commodity prices are off their mid-2011 peaks, with the food price index lower by 9.2% in January 2012 compared with January 2011. Food prices are expected to decline by about 1% over the year. Crude oil prices rose by approximately 40% in 2011. As of January 2012, crude oil prices are 15% higher year-on-year (y-o-y), but average prices for the year are expected to be roughly the same as in 2011.
- Exchange rates, led by the euro, continue to be volatile as a number of countries pursued loose monetary policies resulting in currency depreciations. However, most Pacific currencies appreciated against the US dollar in 2011. The PNG kina and Solomon Islands dollar strengthened significantly (by 18.4% and 8.7%, respectively) on the back of strong commodity-exports and efforts to mitigate high inflation.

Trade performance mixed

- Estimated global trade volume increased by 6.9% in 2011, which represented a decrease from 12.7% growth in 2010. Global trade growth is expected to slow to 3.8% in 2012 before recovering in 2013, according to the IMF World Economic Outlook Update (January 2012).
- Exports to Australia from the 14 ADB developing member countries in the Pacific reached $4.2 billion in 2011, an increase of $1.2 billion compared with 2010. Approximately 30% of total

International and regional developments

Pacific exports go to Australia. Strong performance from PNG—the Pacific country with the greatest exports to Australia—led the rise in exports from the region. PNG's exports, composed mainly of minerals, grew by nearly 30% over the last quarter of 2011 compared with a year earlier.

- Pacific exports to New Zealand were much smaller ($82.7 million) and held steady in 2011. Although Fiji accounted for 64.3% of regional exports to New Zealand in 2011, the value of its exports (mainly agricultural products and garments) decreased by 2.5% during the year.

- Nonfuel imports from Australia reached $2.5 billion in 2011 (a 4.3% increase over 2010 levels), while those from New Zealand amounted to slightly more than $800 million (an 18.4% increase). Pacific imports of gasoline and diesel from Singapore rose by 10.6% and 12.4% in 2011 (y-o-y). Most South Pacific countries secure their fuel imports from Singapore.

Tourism to the Pacific reaches record highs

- The World Tourism Organization estimates that global tourism grew by 4.0%–4.5% in 2011, down from the 2010 growth of more than 6.0%. Tourism to the Asia–Pacific region performed better than the world average with growth of about 5%–6%, although this represented significant moderation from the 12% expansion in the previous year.

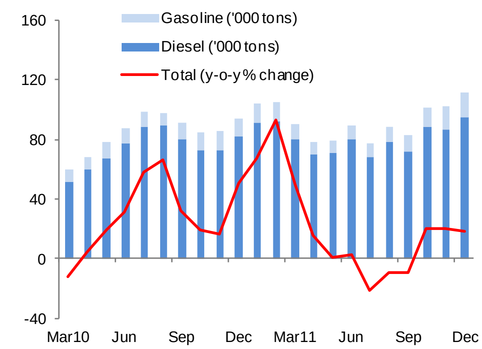
- Visitor arrivals to the Pacific are estimated to have increased by about 6.0% in 2011 and have reached historically high levels in most countries. Total visitor arrivals in Fiji reached an all-time high of almost 675,000 in 2011, 6.8% higher than the prior year. The Cook Islands recorded a new fiscal year (FY) high in total arrivals, reporting more than 108,000 visitors. Samoa reported a record high of 129,000 visitors. Arrivals in Palau breached the 100,000 level for the first time in FY2011 (October to September), increasing by 25% over FY2010 arrivals.

- In 2012, tourism arrivals to Fiji are expected to grow by 3.5%, which represents a moderation of the growth recorded in 2011 due in part to the January floods in Nadi. If historical patterns continue, slower growth in tourist arrivals to Fiji can be expected to result in increased tourism to Vanuatu. Such destination substitution was observed following the 2009 floods in Fiji.

- For the Cook Islands, the reintroduction of a regular Sydney–Rarotonga flight is projected to contribute to the expected growth in total arrivals of about 5.5% in FY2012. Due to increased marketing, modest recovery in tourism arrivals to Tonga is expected after 2 consecutive years of decline. Growth in visitor arrivals in Samoa is projected to pick up to about 2.5% in FY2012. Palau expects to continue recent years of strong growth in international visitors, driven by increased numbers of visitors from East Asia.

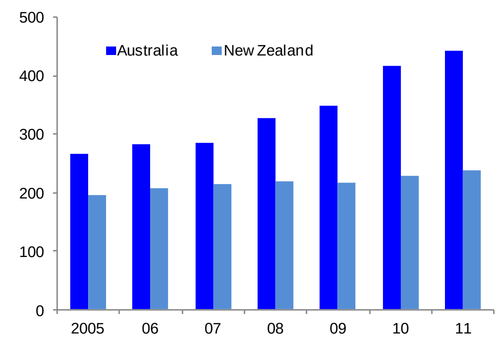
- Despite the high growth in arrivals, there is evidence from some countries that tourism receipts may be growing less strongly due to discounting and lower average expenditures by visitors. In the Cook Islands and Fiji, estimates suggest real earnings per tourist in 2011 were actually 15% lower than in 2007.

Pacific fuel imports from Singapore (3-month m.a.)



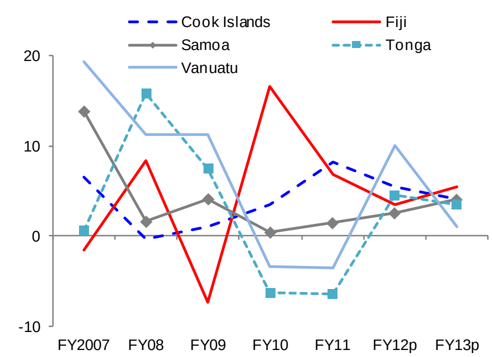
Source: International Enterprise Singapore.

Tourist departures to Pacific countries ('000; January–December totals)



Sources: ABS and Statistics New Zealand.

Projected growth in visitor arrivals (% change, annual)

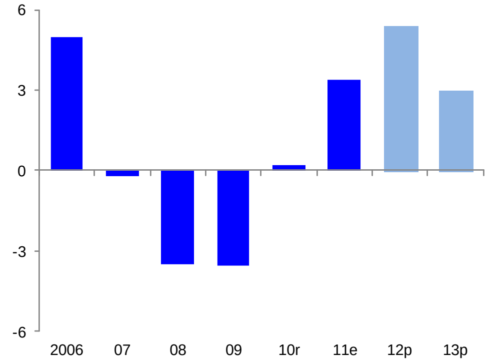


Sources: Cook Islands Statistics Office, Fiji Bureau of Statistics, Samoa Bureau of Statistics, Tonga Statistics Department, Vanuatu National Statistics Office; and ADB estimates.

Lead authors: Christopher Edmonds, Joel Hernandez, Rommel Rabanal, and Cara Tinio.

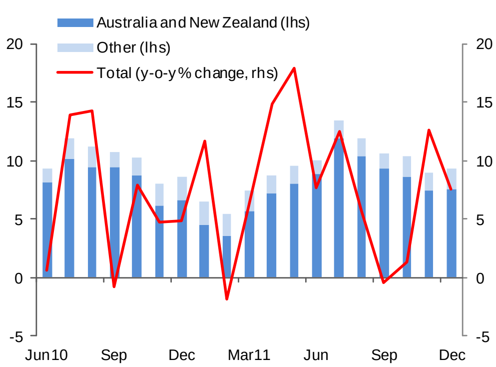
Cook Islands

GDP growth
(%, annual)



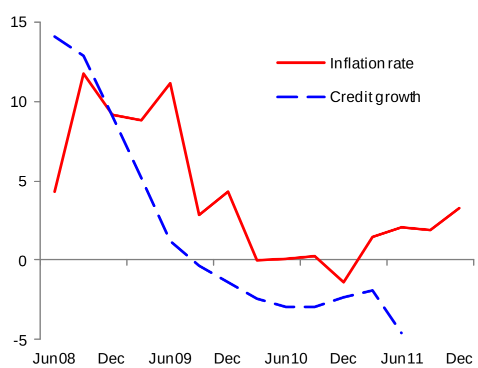
r=revised, e=estimate, p=projection
Source: Cook Islands Ministry of Finance.

Visitor arrivals
('000, monthly)



lhs=left hand scale, rhs=right hand scale
Source: Cook Islands Statistics Office.

Inflation and credit growth
(y-o-y % change, quarterly)



Source: Cook Islands Statistics Office.

Lead author: Malie Lototele.

Recent developments

- The government estimates that the Cook Islands economy grew by 3.4% in FY2011 (ended 30 June). Tourism is the largest sector and accounts for around 68% of GDP. The country experienced a 10.8% increase in tourist arrivals in FY2011, with a 13.6% increase in visitors from New Zealand and 11.7% from Australia. Tourist arrivals increased by a further 6% in the first half of FY2012 on the back of strong economic performance in major source markets and additional flights.
- Import payments are growing faster than export receipts, leading to a bigger trade deficit of NZ$363.5 million in FY2011. Import payments rose by 7.7% while export receipts contracted by 10.5% in FY2011.
- The fall in export receipts was largely due to a drop in pearl exports. Pearl exports fell from $1.6 million in FY2010 to $0.6 million in FY2011. Pearl exports accounted for 27% of exports in FY2010 but fell to 12.2% in FY2011.
- Prices increased by 0.6% in FY2011 compared with 1.8% in FY2010. Inflation averaged 2.6% in the first half of FY2012.
- A supplementary budget equivalent to NZ$6.2 million was passed in February 2012. Almost 75% (NZ$4.5 million) of this amount will be allotted to subsidize Air New Zealand's Los Angeles and Sydney flights.

Outlook

- ADB is projecting 5.4% growth for FY2012, while prices are expected to rise by around 3.0%.
- The budget projects a fiscal deficit of 2.0% of GDP in FY2012. Government expenditure is projected to increase by 3.1% and revenue by 3.2%. An operating balance surplus of NZ$2.9 million is projected for FY2013.
- The trade deficit for FY2012 is projected to be NZ$395.7 million. This represents a worsening of the trade deficit by 5.6% over the previous year.
- The value of pearl exports has stagnated in recent years (driven by declines in black pearls). However, a proposed program to revive the industry could help reverse this trend and raise the value of pearl exports to NZ$1.5 million by FY2015.

Key issues

- Government debt has been revalued downward from NZ$107 million to NZ$93.6 million due to exchange rate movements. No new borrowings have been entered into since the FY2012 budget. Debt levels remain well within the current ceiling of 35% of GDP.
- Projections of revenue growth are heavily dependent on continuing growth in tourism receipts. Continuing uncertainty in the global economic outlook remains a risk for the country.

Fiji

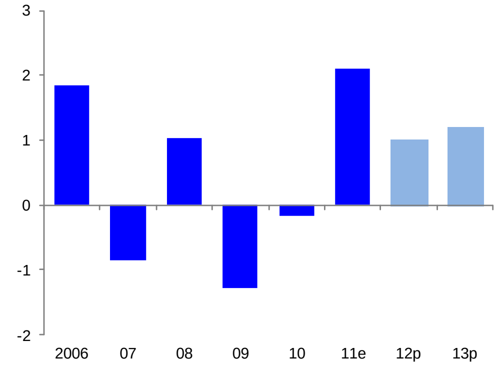
Recent developments

- The Fiji economy grew by an estimated 2.1% in 2011. This was due in part to strong export performance of key export crops (i.e., pawpaw (papaya), sugar, and taro) and continued growth in tourism.
- Building on the recovery in 2010 after the floods in 2009, tourist arrivals increased by 6.8% in 2011. However, price discounting persists, with real earnings per tourist at about 15% below 2007 levels.
- The widespread flooding in western Fiji in January 2012 resulted in damage worth at least $17.3 million (0.5% of GDP), with the sugar industry being hit hardest. Four sugar mills were affected, as well as crops and support infrastructure (e.g., tramlines and bridges). The government is likely to miss its target of 10% growth in sugar exports in 2012. Other key export crops were also severely affected. The January floods affected the country's tourism gateway, Nadi, which could make it difficult to achieve the government's target of 700,000 tourists this year.
- At 14% of GDP in 2011, investment spending is lower when compared with the 18.3% share in 2005 and remains below the government target of 25% of GDP. Public investment remains constrained by high debt levels and efforts to bring down the budget deficit. Government infrastructure spending also suffered from a low implementation rate compared with budgeted estimates due to uncertainty in revenue streams and limited project management capacity.
- Prices increased by 8.7% in 2011. This was driven by higher imported fuel and food prices, an increase in VAT, and higher electricity tariffs.
- In spite of high inflation and excess liquidity in the system, the monetary stance of the Reserve Bank of Fiji remains accommodative, with its overnight policy rate lowered to 0.5% in October 2011. Banks remain cautious about lending, with private credit growing marginally from 3.8% in 2010 to 4.8% in 2011.
- In February, the Reserve Bank of Fiji introduced a new policy measure to increase lending by requiring commercial banks to allocate 4% of their deposits to the agricultural sector and 2% to renewable energy.
- The anticipated entry of Bred Bank (Fiji) Limited, the second largest banking group in France, bodes well for greater competition in the banking sector and for creating more commercial opportunities in the region.

Outlook

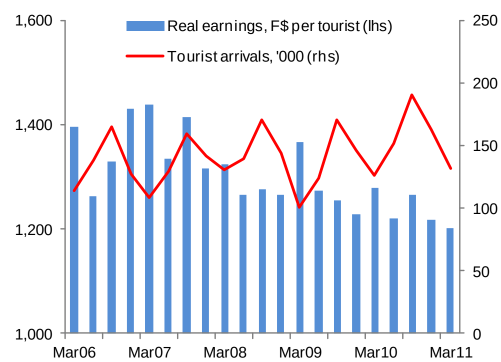
- The government forecasts economic growth of 2.3% in 2012; however, ADB considers this optimistic, given the adverse effects of the January floods and weakening global demand. ADB projects the economy to grow by 1.0% in 2012, which is higher than Fiji's nearly flat long-term growth trend.

GDP growth
(%, annual)



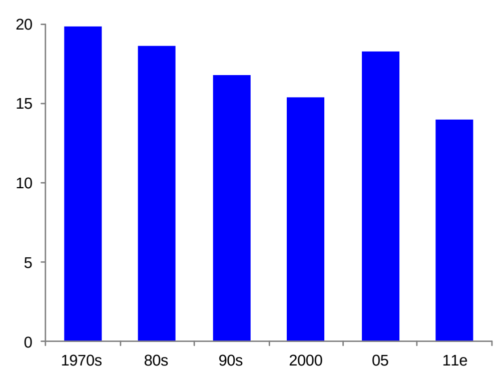
e=estimate, p=projection
Sources: Fiji Ministry of Finance. Economic and Fiscal Update: Supplement to the 2012 Budget Address; and ADB estimates.

Real tourism earnings
(F$ per tourist, quarterly)



F$=Fiji dollar, lhs=left hand scale, rhs=right hand scale
Note: Deflated using consumer price index (2006 prices)
Source: Reserve Bank of Fiji.

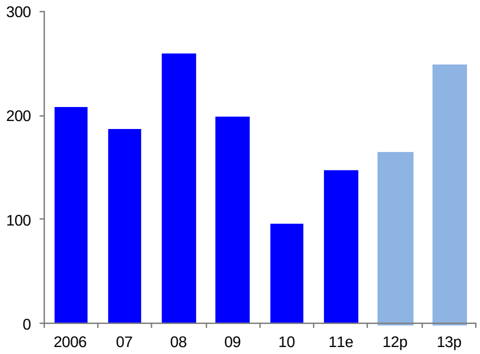
Total investments
(% of GDP)



Source: Reserve Bank of Fiji.

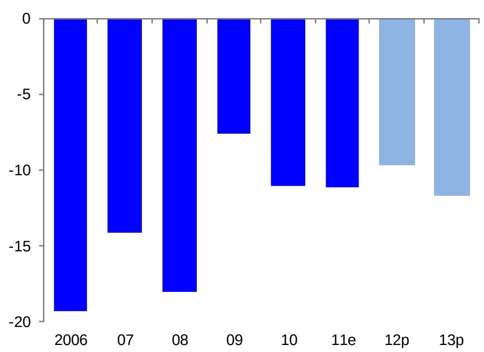
Fiji

Sugar exports
('000 metric tons, annual)



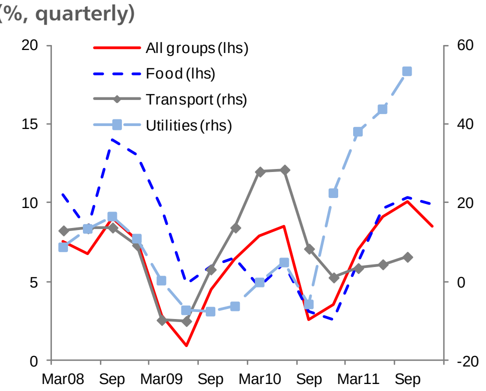
e=estimate, p=projection
Source: Fiji Ministry of Finance. *Economic and Fiscal Update: Supplement to the 2012 Budget Address;* and *Fiji Sugar Corporation Annual Report 2010.*

Current account balance
(% of GDP, annual)



e=estimate, p=projection
Source: Fiji Ministry of Finance. *Economic and Fiscal Update: Supplement to the 2012 Budget Address.*

Consumer price index (CPI)
(%, quarterly)



lhs=left hand scale, rhs=right hand scale
Source: Reserve Bank of Fiji.

Lead author: Laisiasa Tora.

- The 2012 budget is predicated on expected economic growth of 2.3%. If this does not materialize, revenue will be lower than projected. Lower revenues would adversely affect the provision of basic public services as well as the government's target of reducing public debt.
- Modest fiscal consolidation could weaken domestic demand and reduce the scope for boosting capital spending. Unless there is significant progress in structural reform and private sector confidence is restored, anemic growth remains likely.
- The medium-term fiscal outlook sees a more rapid reduction in the debt-to-GDP ratio—from 52% in 2012 to around 50% by 2014. This is expected to reverse the trend of increasing debt that began in 2006 and would raise prospects for achieving the government's target of 40%.
- The relatively high inflation experienced in January and February of 2012 is expected to moderate in succeeding months. This reflects ADB's expectations of falling world food prices, weakening domestic demand, and tightly controlled public wages. Inflation of 5.1% is projected for the year.
- The current account deficit is projected to narrow to around 10% of GDP in 2012, despite lower earnings from sugar exports, as declining international prices for fuel and food are expected to reduce the import bill.
- Foreign reserves are expected to remain above comfortable levels of 3 to 4 months of import cover in 2012 given ample liquidity in the financial system and weaker demand for imports.

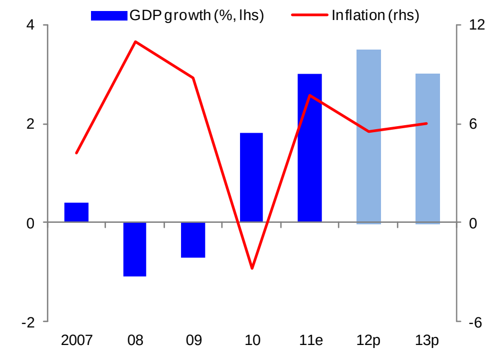
Key issues

- For more than a decade, Fiji has experienced low rates of economic growth and high levels of poverty. Private investment has declined from an average of 11.3% of GDP in the early 2000s to around 2.0% in 2011—the lowest level since the country's independence in 1970.
- The government recognizes that Fiji operates below its growth potential because of macroeconomic and structural constraints, and it is committed to addressing these problems through reforms. However, the pace at which reform is being implemented is constrained by lack of technical capacity and limited stakeholder buy-in and consultation.

Kiribati

- The economy is estimated to have grown by 3% in 2011, largely due to an increase in retail activity. Prices increased sharply by 7.7% in 2011 due to higher rice and energy prices.
- Revenue collections for 2011 amounted to A$63.1 million, about 20% lower than collections in the previous year and 9% below budget estimates. This is due to (i) declines in the value of income from licenses as the Australian dollar strengthened against the US dollar (90% of license income is denominated in US dollars), and (ii) lower revenues arising from a poor fishing season. Total government debt increased by A$9.2 million. The total debt now stands at 17.0% of GDP in 2011, compared with 11.3% of GDP in 2010.
- The economy is projected to grow by 3.5% in 2012, brought about by higher government spending to rehabilitate roads, airports, and port infrastructure.
- There is a need to stabilize the real value of the Revenue Equalization Reserve Fund in per capita terms to ensure fiscal sustainability. This would mean limiting government budget deficits to 5%–6% of GDP in the long term. With an estimated deficit of 10% of GDP after a drawdown of A$19.7 million from the fund in 2011, stabilizing the value of the reserve fund will present a real challenge to the government.

GDP growth and inflation (annual)



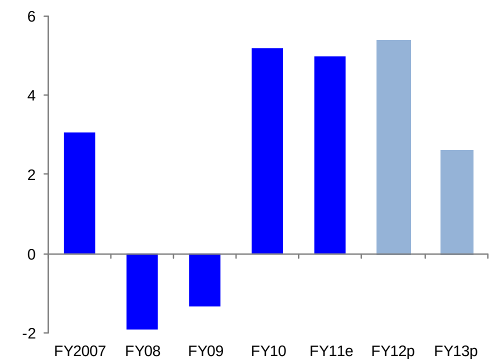
e=estimate, p=projection
Source: IMF 2011 Article IV Concluding Statement; and ADB estimates.

Lead author: Malie Lototele.

Marshall Islands

- Continuing the recovery realized in FY2010, the economy of the Republic of the Marshall Islands (RMI) grew by about 5.0% in FY2011 (ended 30 September). Growth was due largely to increased fishing activity as well as construction related to the upgrade of the Amata Kabua International Airport on Majuro.
- Exports grew by 26.5% to $40.8 million in FY2011, but the RMI remains a net importer (imports totaled $114.5 million). High import levels are driven by the demands of the Kwajalein military base and for inputs to the fisheries (a major export industry) and construction sectors.
- The RMI economy is expected to grow by 5.4% in FY2012, due again to continued expansion in the fishery sector and spending related to the airport upgrade. However, upon completion of the airport upgrade, growth is expected to fall to 2.6% in FY2013.
- A global financial and economic slowdown presents a downside risk to the growth forecast by affecting trade earnings, remittances, and foreign investments, and possibly also inflows of foreign assistance. Of longer-term concern is its impact on the value and earnings of RMI's Compact Trust Fund. Building the size of this fund is vital to enable fiscal self-sufficiency in 2023, when the grants under RMI's Compact of Free Association with the US are scheduled to expire.
- Implementing key reforms could mitigate the risks to fiscal self-sufficiency and stimulate economic growth. Structural reforms, particularly in the fishery and state-owned enterprise sectors, would boost private sector activity and broaden the tax base, while fiscal adjustments would improve the budget balance by increasing revenue collection and reducing expenditures.

GDP growth (%, annual)

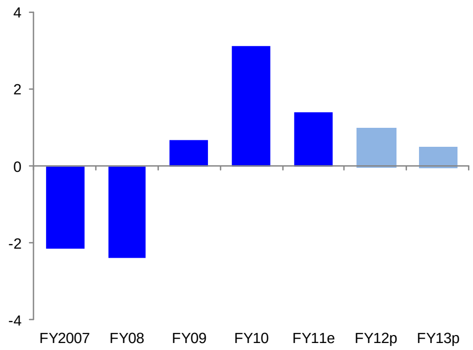


e=estimate, p=projection
Sources: *Republic of Marshall Islands Fiscal Year 2010 Economic Review*; and IMF. 2011. *Article IV Staff Report*.

Lead author: Cara Tinio.

Micronesia, Federated States of

GDP growth
(%, annual)



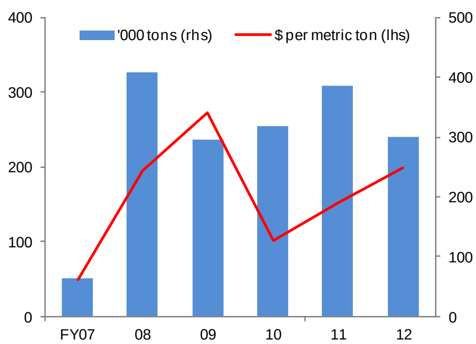
e=estimate, p=projection
Sources: *Federated States of Micronesia Fiscal Year 2010 Economic Review*; and ADB estimates.

Lead author: Rommel Rabanal.

- The economy of the Federated States of Micronesia (FSM) grew by 1.4% in FY2011 (ended 30 September), compared with 3.1% in the previous year, as a result of the winding down of some large public construction projects. Employment growth in the private sector likely declined from 8% in FY2010 as some projects were completed.
- Prices rose by almost 8% in FY2011, driven by rising oil prices and higher commodity prices. Inflation averaging about 3.5% is expected in FY2012 as prices of imported commodities are projected to stabilize.
- With less construction activity, the FSM economy is expected to grow at 1.0% in FY2012 and 0.5% in FY2013. Limited business opportunities and the annual reduction in financial assistance from the US also contribute to the weak economic outlook.
- Expanding business opportunities will be important for future economic growth. In the World Bank's Doing Business 2012 report, FSM ranks 140th out of 183 countries in terms of the quality of its business regulations (the lowest among the Pacific islands). Among the areas where FSM's business environment rates particularly poorly are protection of investors (174th) and registering property, for which FSM ranks last (along with the Marshall Islands) as it has a limited system of property registration. Government must address these regulatory issues to enable the private sector to develop creative ventures that can be viable even in a small island economy.

Nauru

Price and volume of phosphate exports
(annual)



$=US dollar, lhs=left hand scale, rhs=right hand scale
Note: FY2012 is for the first 7 months only.
Sources: Republic of Nauru Phosphate Company, Nauru Bureau of Statistics and World Bank Commodity Price Data (Pink Sheet).

Lead author: Milovan Lucich.

- An increase in phosphate production resulted in economic growth of 4% in FY2011 (ended 30 June) compared with zero growth in FY2010. Improvements in Nauru's port facilities have facilitated phosphate exports. In the first 7 months of FY2012, phosphate exports reached 300,000 tons, compared with 385,000 tons for all of FY2011, and are expected to be 450,000 tons for the whole year. The increase in phosphate production is expected to continue and result in economic growth of 4.8% in FY2012 and 4.2% in FY2013.
- Prices were flat in the first half of FY2012. Full year inflation is expected to increase to 1.5% in FY2012 (compared to 3.5% deflation in FY2011). Prices are expected to increase by an average of 2.0% in FY2013.
- Nauru Ocean Resources Incorporated (NORI), a state-owned enterprise, has been given permission by the International Seabed Authority to begin exploration for seabed minerals in international waters. A proportion of international waters has been set aside for developing countries to explore and develop, and Nauru is the first to take advantage of this opportunity. Later this year, NORI will begin sonar exploration between Hawaii and Mexico for manganese nodules.
- Nauru relies heavily on official development assistance. A recent review by the Australian Agency for International Development (AusAID) concluded that Pacific microstates such as Nauru face limited growth prospects. The review suggested that AusAID would increase assistance to these countries to offset the lack of private sector activity, mostly through program grants.

Palau

Recent developments

- The economy grew by 5.8% in FY2011 (ended 30 September), an acceleration from 0.3% growth in FY2010, which followed 4 consecutive years of contraction. Growth is driven by the tourism sector. Visitor arrivals reached a record high of more than 103,000 in FY2011, about 25% higher than the previous year. The number of visitors from both Japan and Taipei,China increased by more than 10,000 in FY2011. As of October, the first month of FY2012, total arrivals are about 20% higher compared with the same month last year, led by high arrivals from Taipei,China.
- Prices in Palau rose by 2.1% in FY2011. This was close to the inflation rate experienced in Palau's main trading partner, the United States. However, in the first quarter of FY2012, prices increased by 5.9% as prices of imported food continue to rise.

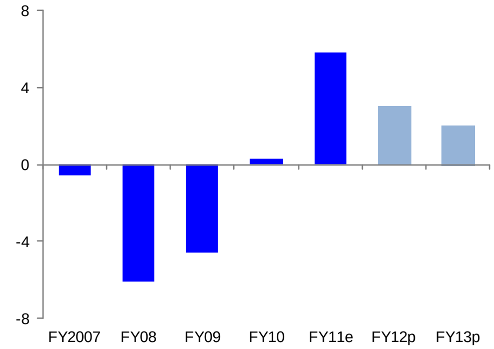
Outlook

- Tourism will be the main engine of the economy for the foreseeable future. Growth in the number of visitors to Palau will depend on economic developments in the main sources of tourists, particularly in Asia (e.g., Japan, the Republic of Korea, and Taipei,China). Based on the latest forecasts for global tourism, visitor arrivals in Palau are expected to increase by 7.5% in FY2012 and by 6.0% in FY2013. The economic activity that can be generated by higher tourist arrivals is expected to increase GDP by 3.0% in FY2012 and 2.0% in FY2013.
- The high rate of inflation in early FY2012 is expected to moderate later in the year as commodity prices stabilize. On average, prices are expected to increase by about 2.0% in FY2012 and by 2.5% in FY2013.

Key issues

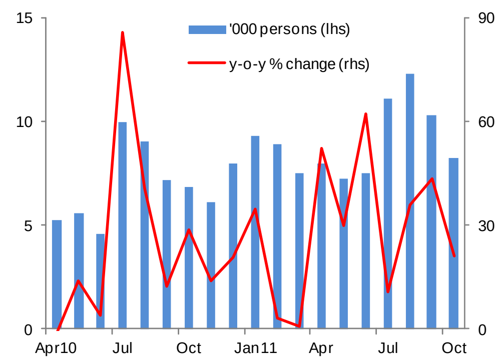
- A planned decrease in US budget support under the Compact of Free Association highlights the importance of strengthening fiscal management. The percentage of tax collected to GDP is only about 15%, one of the lowest in the Pacific. It is necessary to improve revenue collection as payments from the US are reduced. In addition, government spending on salaries and wages (more than 40% of total expenditure) is relatively high, even by regional standards, and needs to be reduced.
- Further private sector development is important over the medium term to support economic growth against the backdrop of fiscal consolidation. While Palau has one of the highest per capita incomes and human development indicators in the Pacific, it ranks among the lowest in the quality of business environment. Palau ranks 116th out of 183 countries in the World Bank's Doing Business 2012 survey, the second lowest among the Pacific islands (followed only by the FSM). In particular, the country rates poorly in access to credit (182nd), protecting investors (174th), enforcing contracts (144th), and starting a business (124th). Measures to reduce credit risk and expand investment opportunities in the domestic economy can encourage banks to increase lending to the private sector instead of investing most of their assets abroad. Simplified business licensing procedures and more efficient contract enforcement and dispute resolution mechanisms will also provide better incentives for increased private sector activity.

GDP growth
(%, annual)



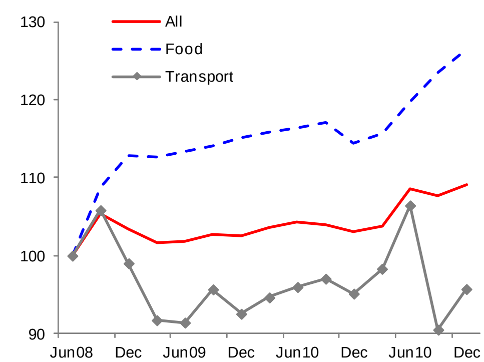
p=projection
Sources: ADB and Pacific Financial Technical Assistance Centre (PFTAC) estimates.

Visitor arrivals
('000, monthly)



lhs=left hand scale, rhs=right hand scale
Source: Palau Visitors Authority.

Prices, by commodity group
(Index: June 2008=100, quarterly)

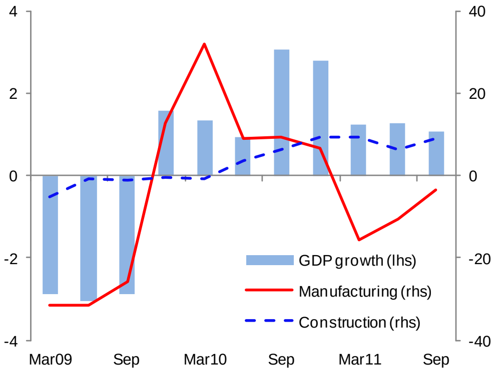


Source: Palau Office of Planning and Statistics.

Lead author: Rommel Rabanal.

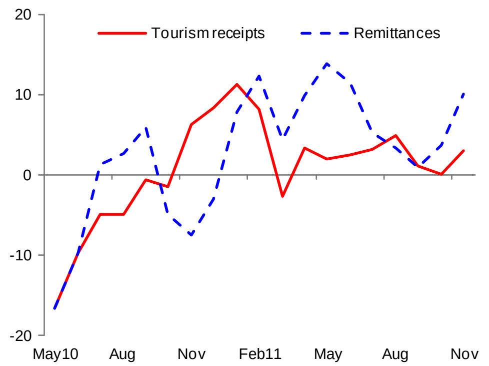
Samoa

GDP growth, by industry
(y-o-y % change, quarterly)



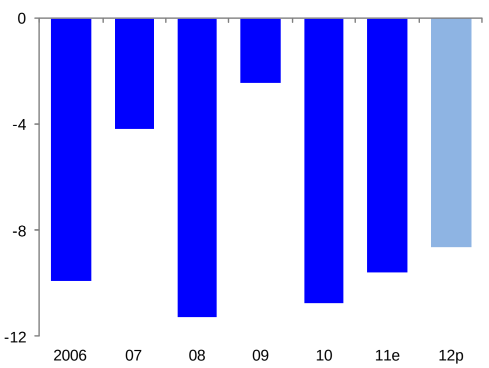
lhs=left hand scale, rhs=right hand scale
Source: Samoa Department of Statistics.

Growth in key sources of income
(%, annual, 3-month m.a.)



Source: Central Bank of Samoa.

Current account balance
(% of GDP, annual)



e=estimate, p=projection
Sources: Asian Development Outlook database; and Samoa Ministry of Finance *Fiscal Strategy Statement 2011/12*.

Lead author: Laisiasa Tora

Recent developments

- Samoa's economy expanded by around 2.1% in FY2011 (ended 30 June) but growth slowed to 1.1% in the first quarter of FY2012. The transport and communication, commerce, and construction sectors contributed to first quarter growth. Samoa's connection to the America Samoa Hawaii submarine cable and ongoing construction of public roads and government buildings helped offset falls in fishing and manufacturing output.
- Tourism-related industries (e.g., hotels and restaurants, transport and communications, and retail trade) account for about half the economic activity in the country. Although visitor arrivals increased by about 2% in the first half of FY2012, tourism receipts adjusted for inflation were flat.
- Remittances, adjusted to account for rising domestic prices, were flat in the first half of FY2012.
- Prices increased by 2.9% in FY2011. However, inflation has accelerated sharply from July to November 2011 due to upward movements in fuel prices. At the end of November 2011, inflation was at 9.2% (y-o-y).

Outlook

- The economy is projected to grow by 2.5% in FY2012. Growth in the agriculture, transport and communication, commerce, and tourism sectors, in addition to improved remittance receipts, are seen as driving this growth.
- Prices are expected to increase further, by around 5%, in FY2012 as strong domestic demand counteracts increased local agricultural production and falling international commodity prices.
- Samoa's balance of payments is projected to record a surplus in FY2012, with the anticipated inflow of donor funds amounting to around $100 million in external loans and grants. This will offset the expected widening of the trade deficit as imports increase due to stronger domestic demand. Exports are also seen as benefiting from duty-free entry of Samoan products into PRC.

Key issues

- Samoa's debt to GDP ratio has been above the 40% benchmark for the past 3 years and is projected to increase to 52% in FY2013. Bringing down debt to a more sustainable level needs to be a government priority moving forward. Reductions in public spending will need to be carefully phased if growth targets are not achieved or private investment continues to decline.
- Samoa has a relatively high ranking (60th out of 183) in the World Bank's Cost of Doing Business 2012 survey. However, the country fares poorly in two areas: access to credit (126th) and resolving insolvency (145th). Reforms in these areas would help to bring down the cost of doing business and encourage private investment.

Solomon Islands

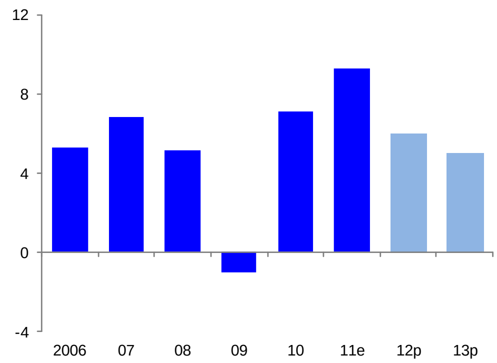
Recent developments

- Solomon Islands achieved 9.3% economic growth in 2011 due to increased export earnings. Log export volumes rose to a historic high of 1.9 million cubic meters in 2011, an increase of 35.8% compared with the previous year. Gold production commenced in April, with total output for the year at 39,492 ounces. Production of palm oil, copra, cocoa, and fish also rose during the period. In addition, prices of all major export commodities were higher.
- The increase in export receipts resulted in trade surpluses in the second and third quarters of the year. The current account deficit narrowed to 12.0% of GDP in 2011 from an average of 18.5% in the last 5 years. Gross foreign reserves improved significantly, covering 8.9 months of imports at the end of 2011.
- Government revenues increased because (i) log export duties were 75% higher in the first 9 months of the year compared with the same period last year and (ii) higher international food and fuel prices increased collection of import duties and goods and sales taxes. Higher revenues and lower capital expenditure resulted in a budget surplus of 2.1% of GDP for the year.
- After falling to 1.0% in 2010, inflation increased to 7.4% in 2011 as a result of higher global food and energy prices. Inflation remained in double digits in the last quarter of the year due to higher food and electricity prices. In 2011, the Central Bank revalued the Solomon Islands dollar vis-à-vis the US dollar by 8.7% to contain inflationary pressures. This reduced the depreciation of the local currency against the Australian dollar.
- Although the economy grew in 2010 and 2011, the important forestry and mining sectors received little domestic financing and private credit has been declining.

Outlook

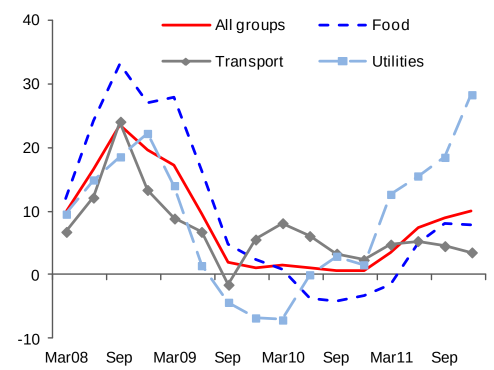
- Economic growth is expected to moderate to 6% in 2012 and 5% in 2013 due to reduced log production. This will be offset by the scaling up of gold mining at the Gold Ridge mine and expected continued strength in the production of agricultural commodities such as palm oil, copra, and vanilla.
- The increase in prices is expected to moderate as commodity prices ease. Average inflation of 5.5% is expected for 2012 and 5.0% for 2013.
- The current account deficit is expected to widen, to around 15% of GDP in 2012-2013, as a result of lower export growth. The deficit will likely be funded through continued donor inflows and foreign direct investment. Import cover will remain comfortable at around 7-8 months.

GDP growth
(%, annual)



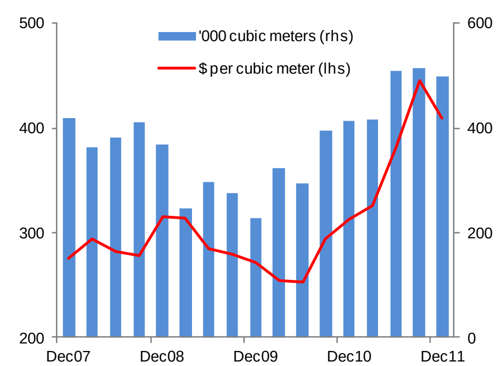
e=estimate, p=projection
Sources: Solomon Islands National Statistics Office and ADB estimates.

Consumer price index
(%, quarterly)



Source: Central Bank of Solomon Islands.

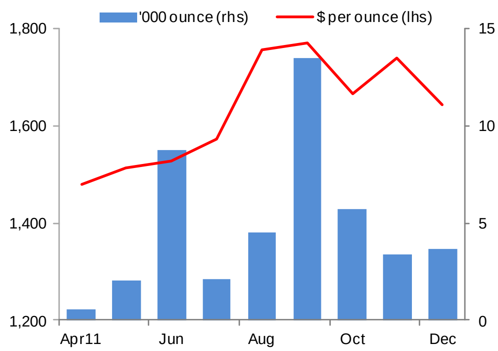
Price and volume of log exports
(quarterly)



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

Solomon Islands

Price and volume of gold exports (monthly)



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

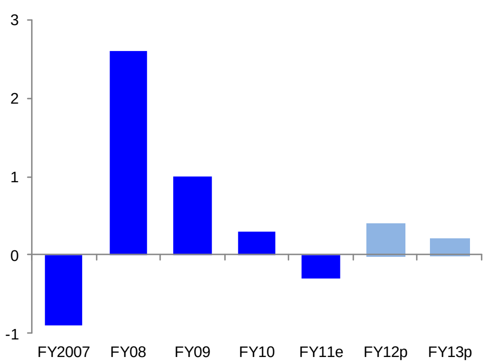
Lead author: Milovan Lucich.

Key issues

- The government has requested a precautionary standby credit facility from the IMF to replace the previous facility that expired in December 2011. This facility would safeguard against potential volatility in government revenues arising from the uncertainty in log and mineral production and from the Solomon Islands' heavy dependence on donor financing.
- As the government is precluded from borrowing under the terms of the Honiara Club agreement, Solomon Islands will continue to run balanced budgets (or small surpluses) over the next few years. A review of the Honiara Club agreement, scheduled for 2012, might lead to the resumption of concessional borrowing by the government.
- The draft 2012 budget forecasts a small surplus (equivalent to 0.03% of GDP). To preserve the budgetary position if the strong revenue growth underpinning budget forecasts does not materialize, government contingency plans call for cutting expenditures on one-off items (e.g., hosting of the Pacific Arts Festival) or scaling back the planned doubling of debt repayments in late 2012.

Tonga

GDP growth (%, annual)



e=estimate, p=projection
Sources: Tonga Ministry of Finance and National Planning and ADB estimates.

Recent developments

- Tonga's economy contracted by 0.3% in FY2011 due to a large drop in remittances and a decline in private credit. These have dampened business and household spending.
- Remittances have been declining in recent years and appear unlikely to return to their FY2008 peak levels. The prolonged decline in remittances is due to high unemployment rates in New Zealand and the US.
- Lending conditions remained tight and loans to the private sector continued to decrease. Lending to businesses fell by 12.5% and to households by 3.5% in November 2011 (y-o-y).
- On average, prices increased by 6.1% in FY2011 and by about the same percentage in the first half of FY2012. This is mainly due to a surge in prices of imports, mainly fuel and food, and higher prices due to limited domestic agricultural production.
- Tourism receipts, adjusted to account for rising domestic prices, increased by 14.8% in FY2011 compared with the previous year. However, in the first quarter of FY2012, receipts have declined by 18%. The government increased the budget for marketing campaigns 15-fold for FY2012.
- Foreign reserves remained high at $131 million in December 2011—equivalent to 9 months worth of imports—but mostly because of donor funds.
- The share of public debt to GDP rose to 45.1% by the end of FY2011, exceeding the government's target of 40%. Most of this debt comes from loans from the Export-Import Bank of China.

Tonga

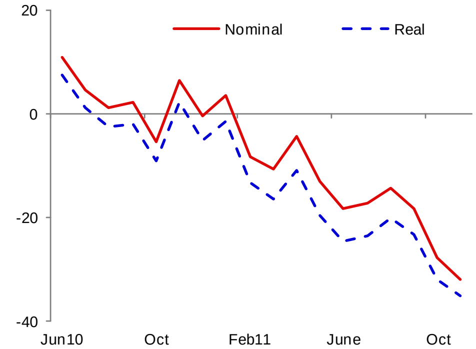
Outlook

- The Tongan economy is expected to grow by modest rates of 0.4% in FY2012 and 0.2% in FY2013. Donor-funded construction of roads and buildings, and some recovery in tourism are expected to support growth. However, domestic economic activity is projected to remain depressed and remittances are likely to continue to fall.
- The National Reserve Bank of Tonga continues to adopt a loose monetary policy stance to keep interest rates low and encourage lending to businesses. However, a tightening of monetary policy might be necessary if international prices for food and fuel, which are fluctuating, rise further.

Key issues

- Tonga's high level of public debt, as well as the composition of this debt, poses significant challenges to the economy. For example, a revaluation of the yuan would increase debt repayments and would likely reduce Tonga's budget for development spending. Higher cash reserves could provide a buffer against cross-currency exchange risks and safeguard the government's expenditure programs. Reducing unbudgeted expenditures, which have been rising steadily, would help ensure that the government's budget targets are met.

Private remittances
(y-o-y % change, 3-month m.a.)



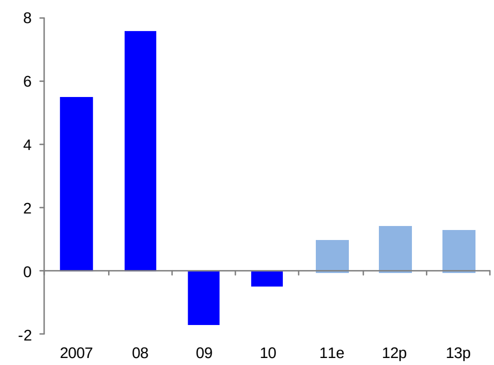
Sources: National Reserve Bank of Tonga and Tonga Ministry of Finance and Planning.

Lead author: Laisiasa Tora.

Tuvalu

- Higher remittances and investment income resulted in economic growth of 1.0% in 2011. The government expects the trend to continue, with growth of 1.4% in 2012.
- Total government debt is estimated to have increased from 44.3% of GDP in 2010 to 54.9% in 2011. However, the government has also made a concerted effort to contain spending, and managed to reduce current expenditure from 89% of GDP in 2010 to 82% in 2011. Similar efforts will continue in 2012 in hopes of reducing the budget deficit to 14% of GDP from 38% in 2010. Additional spending cuts may be necessary as the Consolidated Investment Fund dries up.
- Efforts to bring down the budget deficit will also be determined by external conditions. Income from fishing license fees and the lease of the country's ".tv" internet domain name are determined by exchange rate fluctuations and catch volumes.
- Inflation rose to 0.5% in 2011 following a deflation in 2010. The economy experienced deflation for nine consecutive quarters until June 2011.
- The trade deficit is estimated to have increased from A$18.6 million in 2010 to A$18.9 million in 2011.

GDP growth
(%, annual)

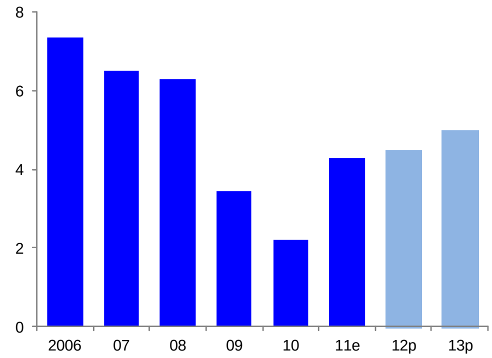


e=estimate, p=projection
Sources: IMF. 2011. *Tuvalu – Concluding Statement of the IMF Mission*; and ADB estimates.

Lead author: Malie Lototele.

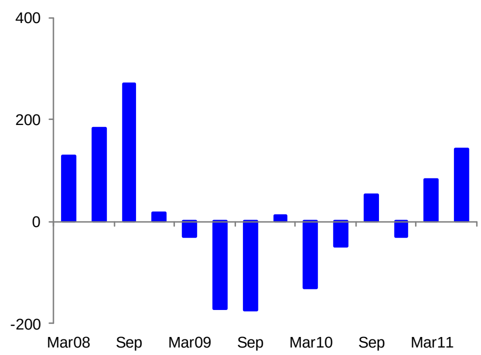
Vanuatu

GDP growth
(%, annual)



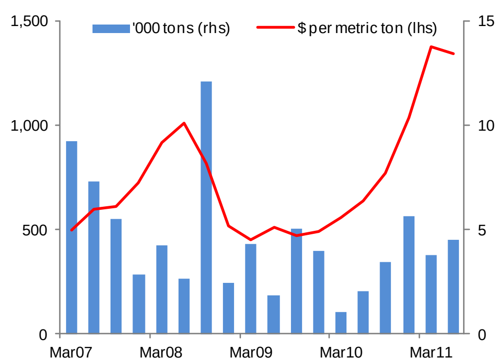
e=estimate, p=projection
Sources: Vanuatu National Statistics Office and ADB estimates.

Change in real VAT revenues
(vatu millions, quarterly)



Note: VAT revenues are expressed in 2006 prices
Source: Reserve Bank of Vanuatu.

Price and volume of copra exports
(quarterly)



Source: Reserve Bank of Vanuatu and World Bank

Lead author: Milovan Lucich.

Recent developments

- The economy grew by 4.3% in 2011 compared with 2.2% in the previous year. This reflected strong agricultural exports (notably copra and coconut oil), high international commodity prices, and growth in the construction sector. A supplementary budget was approved in the second half of the year aimed at boosting growth and offsetting delays in donor-funded spending. Higher economic growth in 2011 also resulted in improved value-added tax collection.
- Total tourist arrivals in 2011 fell by 3.5% compared with the previous year, with arrivals from Australia and New Zealand down by 1.6% and 4.5%, respectively. Tourism is expected to pick up in 2012 due to increased flights from Australia and Fiji, diversion of tourists from Fiji because of flooding in Nadi in early 2012, and the country's hosting of the African, Caribbean, and Pacific Group of States meeting.
- The Reserve Bank of Vanuatu raised the bank reserve requirement by 100 basis points to 7% in August 2011. This is part of its process of normalizing monetary policy following the expansionary stance adopted during the global financial and economic crisis.
- Despite high global energy and food prices, the consumer price index increased by just 0.8% in 2011. This is partly explained by the slowdown in growth of private credit, which fell from its peak in December 2008 to 7.9% in June 2011. The decline in private credit mirrors the drop in money supply and contraction of commercial banks' net foreign assets. The mild appreciation of the vatu versus the US dollar also mitigated price increases.

Outlook

- Economic growth of 4.5% is expected in 2012 and 5.0% in 2013. This will be driven by increased construction, continued strength in agricultural production, and recovery in tourism. As the economy gains momentum, inflation is expected to increase to 3.0% in 2012 and 4.0% in 2013.
- The current account deficit will widen to around 6.3% of GDP in 2012 and 6.5% of GDP in 2013, as a result of stronger imports due to accelerating economic growth. This will be funded through continued donor inflows and foreign direct investment. Foreign exchange reserves are expected to remain at levels needed to finance 5–6 months of imports.

Key issues

- Parliament ratified the country's accession package to the World Trade Organization (WTO) in November 2011, making Vanuatu WTO's 154th member. As part of its accession agreement, the country will impose an average maximum tariff rate of 43.6% on agricultural products and 39.1% on industrial products. This implies that import duties, which currently account for 24.4% of tax revenue, would decline as a source of government revenue.
- As the indirect tax base erodes, the government will need to consider measures to broaden the tax base. For example, because Vanuatu currently has no income tax, the introduction of a progressive tax could be considered.

Papua New Guinea

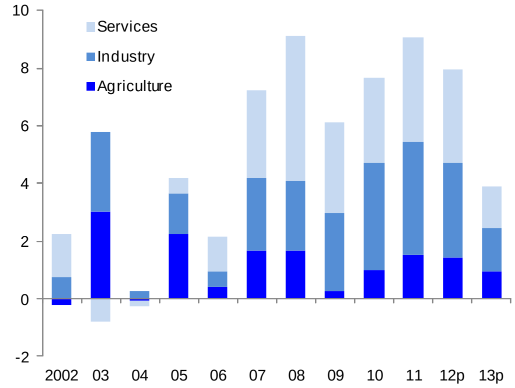
Recent developments

- The economy continued its strong performance during 2011, marking a decade of uninterrupted expansion. Industry made the largest contribution to growth, boosted by construction of the $16 billion liquefied natural gas (LNG) project and high levels of government spending. Spillover from this activity also drove growth in the services sector, including wholesale and retail trade and transport. The mining and petroleum sector contracted due to declining output from oil fields.
- Agriculture expanded at a moderate pace in 2011, with many cash crops (e.g., coffee, copra, cocoa, palm oil, tea) responding to high international prices. Adding to this growth was the export of a record 3.5 million cubic meters of logs—making PNG the second-largest exporter of tropical hardwood logs in the world. Many logs are sourced from land covered by Special Agricultural and Business Leases and concerns are growing about the environmental impact that log exports are having on traditional landowners and their livelihoods.
- The 2011 budget recorded a small deficit of $40 million (equivalent to 0.3% of GDP). However, adjusting official numbers for net trust fund deposits gives an effective budget outcome equal to a 0.7% of GDP surplus. This difference arises due to the government's classification of trust fund deposits as expenditures, while international government accounting standards treat them as savings.
- In the first half of 2011, increasing prices were driven by high levels of government expenditure, large resource project investments, and rising international commodity prices with consumer price index (CPI) growth reaching double digits by the middle of the year. However, strengthening of the kina exchange rate slowed the pace of growth in the second half of the year, bringing the annual CPI increase to 8.7%.
- The end of 2011 saw some moderation in real estate prices. Rental and asset prices will remain high by international standards but increasing supply is likely to lower costs further over the coming 12 months.
- A decade of economic growth has created many jobs in the PNG economy. The Bank of PNG's Business Liaison Survey showed a further 7.1% increase in formal employment during the first half of 2011. However, PNG's prohibitively expensive business environment means the formal private sector remains small and concentrated in just a few industries. Estimates indicate that less than 10% of the economically active population is engaged in formal private sector employment. PNG fell four places to 101st out of 183 countries in the World Bank's 2012 Cost of Doing Business Survey, one of the lowest in the region.

Outlook

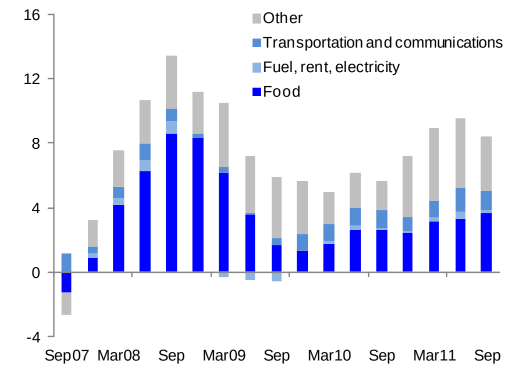
- With LNG project construction reaching its peak and with a range of other new resource sector developments in the pipeline, PNG is likely to maintain strong economic growth in 2012. The government expects strong economic growth and high commodity prices to sustain high levels of revenue collection in 2012, further adding to macroeconomic stability.

Contributions to GDP growth (% points, annual)



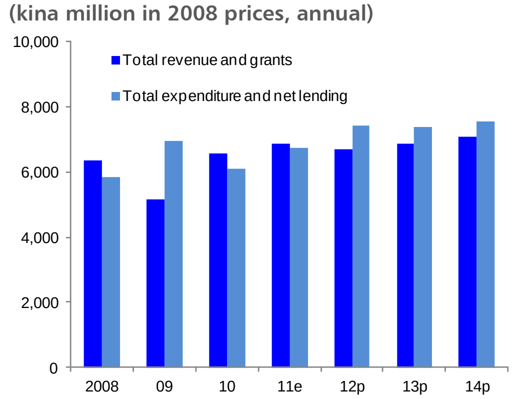
p=projection
Sources: PNG Department of Treasury and ADB estimates.

Contributions to CPI inflation (% points, quarterly)



CPI=consumer price index
Sources: Bank of PNG and ADB estimates.

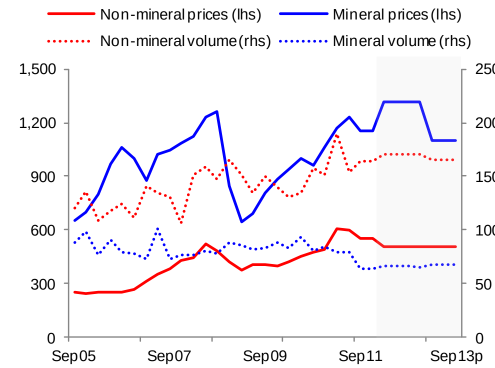
Government revenue and expenditure (kina million in 2008 prices, annual)



e=estimate, p=projection
Note: Total expenditure and net lending is adjusted for net trust fund drawdowns.
Sources: PNG Department of Treasury and ADB estimates.

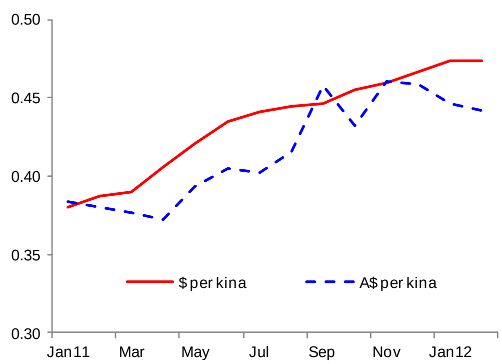
Papua New Guinea

Export prices and volumes (Index: 1994=100)



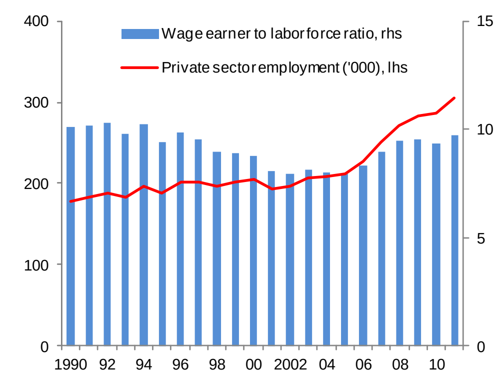
lhs=left hand scale, p=projection, rhs=right hand scale
Sources: Bank of PNG and ADB estimates.

PNG kina exchange rates (monthly)



Sources: Bank of PNG and ADB estimates.

Private sector employment (annual)



lhs=left hand scale; rhs=right hand scale
Sources: Bank of PNG, International Labour Organisation, PNG Census 1990, and ADB estimates.

Lead author: Aaron Batten.

- A major risk to this outlook is the potential for ongoing political turmoil to escalate in the lead up to the July 2012 elections—damaging investor confidence and policy coherence. In response to this uncertainty, ratings agency Standard and Poor's downgraded PNG's credit rating outlook from B+ Neutral to B+ Negative.
- Adding to the political risk is the potential for lower-than-expected commodity prices. Unlike previous years, revenue projections in the 2012 budget adopt an optimistic outlook for export commodity prices. Cocoa, coffee, palm oil, rubber, and tea are expected to moderate slightly but remain near record highs, while copra, copra oil, and copper are all expected to increase in value. Gold, which makes up almost half of export earnings, is forecast to be 20% higher in 2012 than in 2011. If commodity prices decline in 2012, the government will likely incur a large budget deficit.
- Looking forward, the winding down of LNG construction and the closure of a number of mining operations in 2013 will considerably slow economic growth. This is expected to begin a 2-year period of declining real government revenues. PNG's low public debt (roughly 24% of GDP in 2011) and trust fund savings, offer fiscal space to manage this period without compromising macroeconomic stability.
- However, ensuring that growing fiscal pressures do not disrupt funding of key service delivery priorities will require an effort by government to reign in unrealistic public expectations about the country's ability to finance new development projects which are being created as a result of resource project developments.

Key issues

- One issue is government's growing off-balance sheet contingent liabilities related to resource project guarantees and unfunded superannuation liabilities. Taken together, these liabilities now total 32% of GDP. If ongoing landowner compensation issues continue to delay LNG project construction, then some of these may pose a substantial fiscal burden for the government, with the potential to crowd out funding for service delivery.
- Another issue is the rising spread between borrowing and lending rates in PNG's finance sector. The weighted average interest rate on total deposits remained at around 1.0% during 2011, while the weighted average lending rate on total loans increased to 10.8%. The cost of credit is a major impediment to diversified business sector growth in PNG. Yet, despite very high levels of liquidity, private sector lending continues to decline and the commercial banking sector appears unwilling to lower lending rates to attract borrowers. Addressing this issue will require authorities to make significant progress on lowering the perceived riskiness of PNG's investment environment at a political level and by strengthening arrangements for individuals to use their assets as collateral. More broadly, there is a need to review the relatively weak level of competition among the few commercial banks operating in PNG.

Timor-Leste

Recent developments

- The economy's strong growth performance continued over 2011, with GDP (excluding the offshore petroleum sector and the United Nations, which is the preferred measure of GDP in Timor-Leste and is used throughout this section) estimated to have grown by 10.0%. The economy remained driven by government expenditure (inclusive of expenditure funded by development partners), which rose from $1.0 billion in 2010 to $1.4 billion in 2011.
- A large budget surplus was again recorded. Petroleum revenue rose to a new high of $2.8 billion in 2011, dwarfing the $0.1 billion raised domestically. The overall budget surplus of $1.5 billion was twice the level of GDP.
- There was an alarming jump in inflation in the final quarter of 2011. There had been little additional inflation over the June and September quarters, despite strong domestic demand. But by the end of the December quarter, inflation had risen on a year-on-year basis to 17.4% in the capital, Dili, and 15.4% nationwide. The jump in inflation was despite easing in most international commodity prices.
- Increases in demand during the Christmas period, and reduced capacity at the Dili international port because the navy was occupying one of the three berths, were key contributors to the jump in inflation. The loss in berthing space, at a port that was already operating at close to full capacity, directly increased shipping costs. But more importantly, it contributed to shortages of imported stock, which enabled wholesalers and retailers to raise their prices. The increases in import prices pushed prices higher for many domestically produced goods.

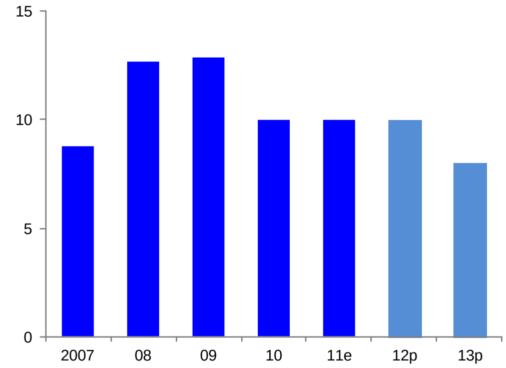
Outlook

- The economy is expected to grow strongly over 2012, again on the back of rising government expenditure. The 2012 budget provides for a further 25.7% increase in expenditure to $1.75 billion. Easing in economic growth is expected in 2013 as growth in government expenditure begins to slow and intensifying infrastructure bottlenecks place a tighter constraint on the economy.
- Inflation is expected to remain very high over the first half of 2012. The loss of capacity at Dili port will continue until March, and preparations for the mid-year national elections are then expected to maintain upward pressure on prices. Inflation is expected to ease over the second half of 2012 as these effects pass and departure of the United Nations mission eases aggregate demand.

Key issues

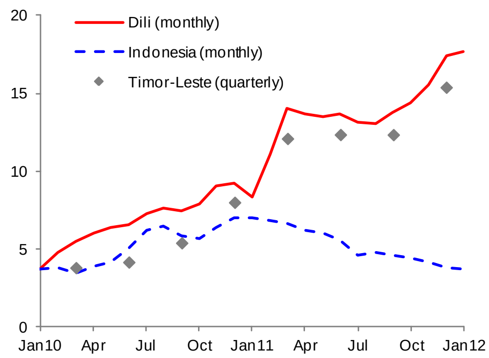
- A number of key new initiatives for the economy have recently reached fruition. Most importantly, the Parliament passed a land law in January that provides a framework for land ownership and resolution of conflicting claims. Complementary legislation that allows the state to acquire land for public purposes and extends the legal framework for providing compensation for changes in land use was approved in February.

GDP growth
(%, annual)



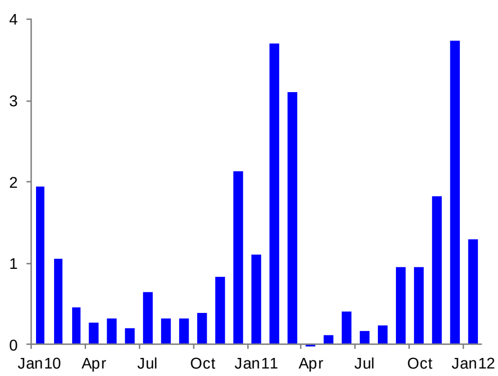
e=estimate, p=projection
Note: Nonpetroleum, non-UN GDP, annual growth.
Source: Government of Timor-Leste. 2011. *2012 Budget Book No. 1*. Dili (November).

Consumer price index
(y-o-y % change)



Source: Timor-Leste National Statistics Directorate.

Inflation month-by-month, Dili
(month-on-month % change, monthly)

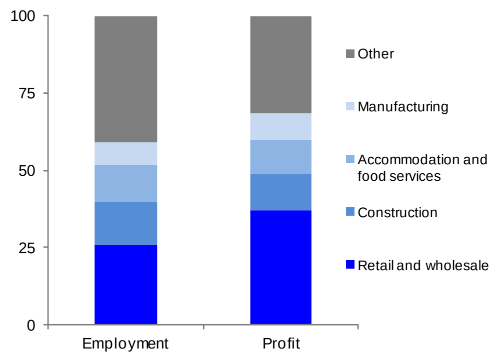


Source: Timor-Leste National Statistics Directorate.

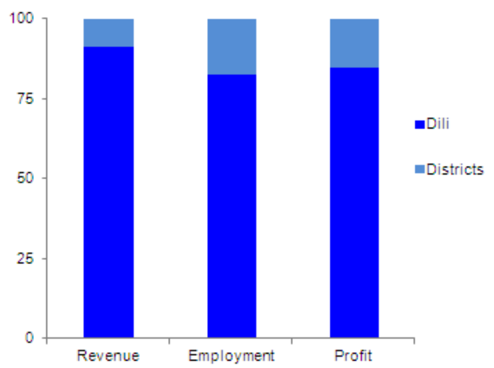
Timor-Leste

The Formal Private Sector in 2010

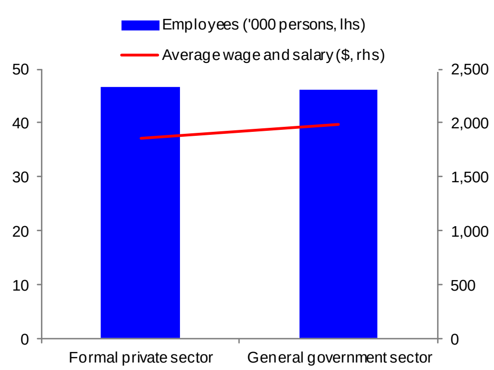
The main industries (share of the total)



Dili vs the districts (share of the total)



Comparisons to government



Sources: National Directorate of Statistics. 2012. *Business Activity Survey of Timor-Leste 2010*. Dili (January); Government of Timor-Leste. 2011. *2012 Budget Book No. 1*. Dili (November); National Statistics Directorate and United Nations Population Fund. 2011. *Population and Housing Census 2010*. Suco Report. Volume 4. Dili (July).

Lead author: Craig Sugden.

- The new laws add to legislation adopted in 2011 that established (i) a process for registering landowners and claimants to land parcels that have been surveyed and for confirming claims to undisputed land (so far, 92% of 47,000 registered claims have been undisputed); and (ii) a regime for compensation for relocation of unlawful occupants of state property. A new civil code was also approved and promulgated in 2011, which will enter into force in March 2012. This law includes a section governing day-to-day land decisions, such as the sale and lease of land.
- The complete package of land reform provides a major step forward in strengthening property rights. Such reforms are an essential underpinning for the development of Timor-Leste's private sector.
- Prospects for private sector development and the economy more broadly were also strengthened by the February approval of a policy and law for public–private partnerships. The policy and law sets out the types of public infrastructure that may be considered for public–private partnerships and how such projects will be evaluated, provisioned, and managed. They provide an open and transparent process for bringing in the private sector as a performance-based provider of infrastructure services. The new framework will provide certainty to investors while safeguarding the rights of the state and users of infrastructure.
- A program of major road upgrades has also commenced in 2012. The first section to be upgraded is the Dili to Batugade national road, which provides a vital link to imports from the port of Kupang in West Timor, Indonesia.
- The inaugural Business Activity Survey provides important insights into the current state of the private sector in Timor-Leste. It highlights the concentration of the business sector in Dili and the shallow structure of the sector, which is focused on retail and wholesale trade, construction, and accommodation and food services.
- The survey also highlights the misalignment in salaries and wages between the private and public sectors. Although average wages and salaries are similar, government employees receive numerous additional benefits, including a generous pension scheme and greater job security. As a result, the effective wage and salary of a government employee could, on average, be as much as double that of a private sector employee.
- If the wage and salary gap persists, it would make it difficult for the private sector to attract suitable labor. It would also distort incentives for the accumulation of skills needed to secure government employment. Over time, this could constrain private sector development.

Fiscal management models for the Pacific

A fiscal management model (FMM) is a budgeting tool designed to help inform policymakers both about the near-term and long-run fiscal impact of policy decisions. The model shows users likely scenarios for future revenues, expenditures, fiscal deficits, and debt levels resulting from various policy choices. The model aims to shed light on key questions such as:

- Is the country's level of debt sustainable?
- What would be the impact of changes in tax policy on government revenues?
- What are the implications of changes in public wages or programs to deliver public services on total government expenditures?

Results of the model are captured in several fiscal ratios (debt to GDP, debt service to revenue, wages and salaries to current expenditure).

Structure of the Model

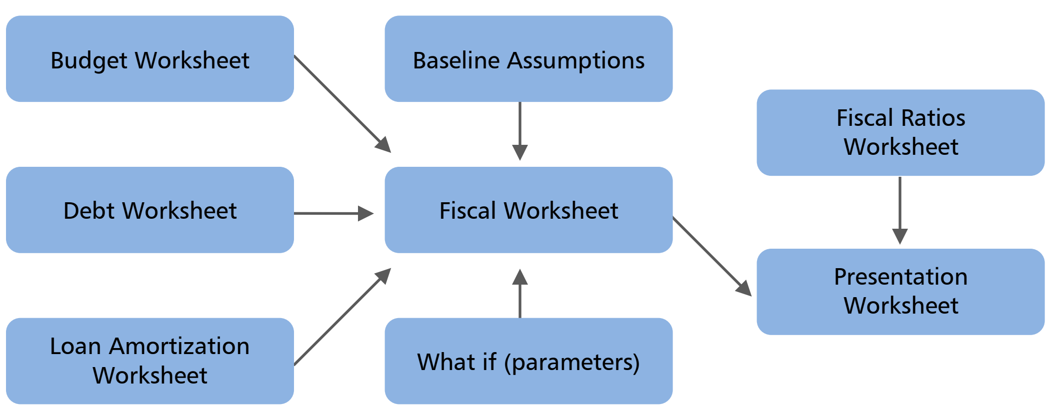
FMMs are relatively easy to set up and maintain. Most of the data for the model can be drawn from databases already commonly used by government ministries and agencies charged with macroeconomic management. Automatic linkages to these databases ensure models reflect the latest data. FMMs are spreadsheet-based models with multiple worksheets. Links between the worksheets trace the effects of a policy decision (e.g., increase in consumption tax) on the government's fiscal position and targeted fiscal ratios over the long term (generally 10 to 15 years).

Models generally produce both medium- and long-term projections. In the case of the FMM recently developed for Tonga, with assistance from the Pacific Economic Management Technical Assistance (PEM TA) project, medium-term projections follow the Government of Tonga's medium-term budget (covering the first 3 forecast years). Macroeconomic variables such as real GDP growth and inflation are sourced from the Ministry of Finance, which has the same figures as the Macroeconomic Committee. Long-term projections (which cover the succeeding 12 years) rely on historical trends of key variables (e.g., average growth over the past 10 years). For the Tonga model, the full set of assumptions used in the FMM defined over the 15 years (3 years from the medium-term budget plus the longer-term projections) is discussed and agreed upon with the Ministry of Finance.

FMMs generally consider two basic scenarios: a "baseline" scenario and any number of "what-if" scenarios related to policy changes being assessed. The baseline is based on current assumptions about key macroeconomic variables (e.g., real GDP growth and inflation) contained in the government's current budget. Changes to the baseline scenario only follow changes made in the official budget assumptions. What-if scenarios consider model outcomes resulting from policy changes vis-à-vis the baseline model. A what-if worksheet allows the user to adjust baseline model parameters to assess the impact of policy changes under consideration. For example, the model could assess the fiscal impacts of a 5% increase in the consumption tax in year 1. The FMM would trace the effect of this policy change on revenues and compute the resulting fiscal ratios as model outcomes. Another example would be to assess the fiscal impact of a 10% increase in wages and salaries of public workers in years 2 and 3. The FMM would estimate the effect of the increased wages and salaries on government expenditures and recompute the fiscal ratios. The user can also pose questions with multiple variables (e.g., the effect of a 5% increase in the consumption tax in year 2 and a 10% increase in wages and salaries in years 1 to 3).

The center of the FMM is the "fiscal worksheet," which mirrors the summary of government operations that is included in the government's official budget document. Several worksheets are linked to the fiscal worksheet. These include the budget, debt, and loan amortization worksheets.

Figure 1: Fiscal Management Model Structure



Fiscal management models for the Pacific

Box 1: The Fiscal Management Model for Tonga

FMMs share a common basic structure but country-specific models can be customized to reflect differing policy options. Country FMMs are also designed to reflect the features of the budget database and policy priorities. For example, spending on social programs is an important policy concern in the Cook Islands. The FMM therefore includes detailed accounts for tracking social expenditures. In Tonga, expenditures on government-guaranteed commercial real estate developments have been rising. The Tonga FMM closely tracks these expenditures in a "contingency fund" line item, to monitor the impact on fiscal targets (ratios).

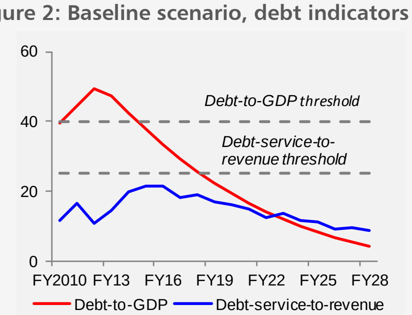
Model simulations

This section illustrates how the FMM in Tonga can be used to inform policy decisions. The simulations using government data and targeted fiscal ratios illustrate what the model can do. Examples are used to display standard FMM outputs and highlight the impact of policies against the baseline and target fiscal ratios.

Government data show that the country's debt sustainability ratios exceed most thresholds. The FMM is used to show the government's fiscal position under various policy scenarios.

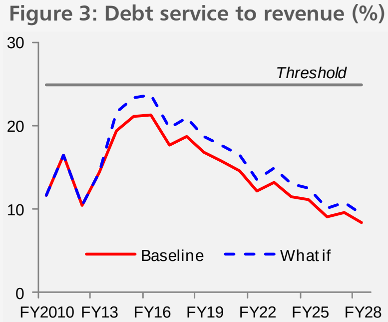
Baseline scenario: Assumes the economy will grow 1.4% per annum from 2013, and inflation will be 3.3% in 2013 and 5.0% thereafter. The chart shows Tonga's debt to GDP ratio already exceeds the government target of 40%, while the debt service to total revenues (less grants) ratio is still within target.

Figure 2: Baseline scenario, debt indicators (%)



Scenario 1 (simple tax cut): A 5% reduction in consumption tax (adjusting the rate from 15% to 10%) starting in 2014.

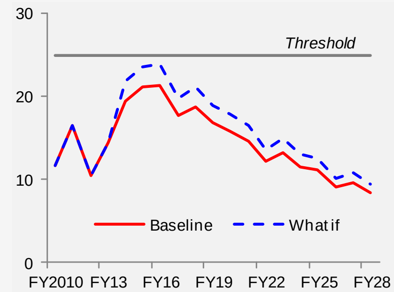
Figure 3: Debt service to revenue (%)



FMM result: This policy will push the debt service to total revenues (minus grants) ratio to almost 24%, just below the maximum target of 25%.

Scenario 2 (tax cut with slower growth): A 5% reduction in consumption tax starting in 2014, an annual growth of 1% between 2012 and 2020, and a return to the long-run growth trend of 1.4% thereafter.

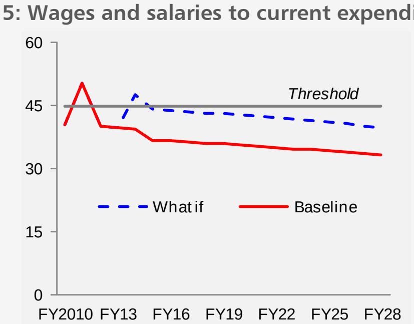
Figure 4: Debt service to revenue (%)



FMM result: Minimal impact on the ratio of debt service to total revenue (less grants).

Scenario 3 (tax cut with slower growth and public wage increase): A 5% reduction in consumption tax starting in 2014, an annual growth of 1% between 2012 and 2020, a return to the long-run growth trend of 1.4% thereafter, and a 10% increase in wages and salaries of public workers in 2014.

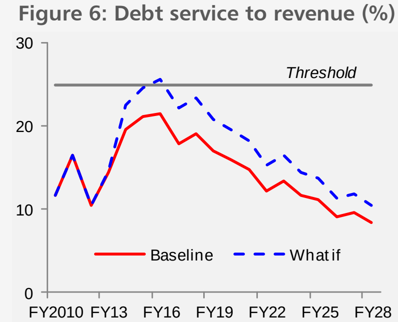
Figure 5: Wages and salaries to current expenditure (%)



FMM result: The combined effect of these changes pushes the ratio of wage and salaries to current expenditure above 45%.

Scenario 4 (tax cut, slower growth, public wage increase, and exchange rate depreciation): A 5% reduction in consumption tax starting in 2014, an annual growth of 1% between 2012 and 2020, a return to the long-run growth trend of 1.4% thereafter, a 10% increase in wages and salaries of public workers in 2014, and depreciation of the pa'anga against the yuan by 5.0% in 2013 and another 5% in 2016.

Figure 6: Debt service to revenue (%)



FMM result: The combined effect of these changes pushes the ratio of debt service to current revenue above 25%.

Fiscal management models for the Pacific

- The budget worksheet is linked directly to the existing budget database in the Ministry of Finance. This worksheet can be linked to the Medium-Term Budget Framework database. In the case of Tonga, it is linked to the Government Finance Statistics database, which, in turn, is linked to the main budget database. This database contains the official estimates of revenues and expenditures for the most recent fiscal year and forecasts for the next 3 years. Most importantly, this worksheet is automatically updated when the budget database is changed, so there is no need to update the worksheet manually. This worksheet is used to compare model forecasts to government fiscal goals in presenting model results, but is not used in the model calculations (is not used in the Fiscal Worksheet).
- The debt worksheet contains data on existing stock of domestic and foreign debt, interest payment and principal repayment schedules, and loan disbursements over a 15-year period. Ideally, the worksheet should be linked to the Commonwealth Secretariat Debt Recording and Management System. This is not immediately possible in Tonga, but can be examined in the future.
- The loan amortization worksheet provides calculations of interest and principal payments from new borrowings.

Two other worksheets, the fiscal ratios and presentation worksheets, input government fiscal targets for comparison with model results and provide a space where outputs are stored and presented.

- The fiscal ratios worksheet contains fiscal ratio targets set by the government (e.g., debt to GDP of 40%, wages and salaries to current expenditure of 45%). This worksheet is used to compare model forecasts to government fiscal goals in presenting model results.
- The presentation worksheet contains line graphs of the resulting ratios from baseline and what-if scenarios and the fiscal ratio targets. These illustrate the effects of a single or multiple policies vis-à-vis the fiscal ratio targets.

Limitations of the Model

The FMM provides a straightforward computation of the effects of current policy (baseline) and policy changes (what-if scenarios) on revenues and expenditures over the long term. The model's simplicity makes it easy to assemble and update, and its results are easy to understand. Its simplicity is also important in sustaining the model particularly in light of the critical capacity limitations faced by many small island countries. In the past, many such countries have failed to maintain more sophisticated models.

However, the simplicity comes at a cost in terms of capturing some of the effects economists would normally expect from policy changes on outcomes of interest. Ideally, fiscal forecasting models should account for the responses of economic agents (e.g., consumers and businesses) to changes in prices and supplies of goods (caused by policy changes) and assess impacts of policy changes on revenues and expenditures jointly. For example, the model calculates that a 5% increase in the consumption tax will lead to an increase in revenue, assuming those paying taxes will not adjust their demand. On the expenditure side, an example would be how the model calculates the impact of an increase in the wages and salaries of public sector workers. The increase would be reflected as higher expenditures with no impact on output or the quality of public service, and no impact on price levels caused by higher spending by public workers.

Another limitation relates to the model's inability to account for interactions of revenues and expenditures effects of policy changes. For example, a government taking on a new loan to finance a new road would face increased debt service payments, which are reflected in expenditures, but not in revenues related to the taxes on road construction activities (such as taxes paid by workers and firms employed on the road project).

The FMMs should be considered as starting points for the development of more sophisticated fiscal models. Given the limited availability of data and technical capacity constraints in the Pacific, development of more complex models is often hampered by the lack of a firm basis for judging the value of key behavioral parameters (for example, how consumers adjust their spending in response to higher taxes). The value of the FMM lies in establishing a consistent framework that clearly shows how decisions made in one period can carry lasting implications on the fiscal position of governments. The construction of more sophisticated forecasting models can be explored once FMMs are developed, when sufficient data and capacity are available.

Lead authors: Christopher Edmonds, Jolly La Rosa, and Savenaca Narube.

Medium-term budgeting in the Pacific

An ongoing challenge for ADB's Pacific developing member countries (DMCs) is the improvement of public financial management and planning systems. Though the challenges vary across countries (for example, in the resource-rich economies of Papua New Guinea and Timor-Leste, it is managing mineral revenue windfalls effectively that occupies the minds of policy makers), there is widespread recognition that Pacific DMCs should seek to improve budget management, strengthen resilience to natural and economic shocks, and ensure the most efficient use of limited resources.

Budget management reform is rarely easy or without cost. Medium-term budgeting (MTB) is a framework that entails strategic linking of public expenditure programs to government development plans. It represents a critical part of budget management reform, providing policy makers with a longer term budgeting perspective. The approach considers the impacts of government development programs on current and future budget cycles. Improving public expenditure planning strengthens the link between government policies and resource allocation.

Challenges to improved budget management

Structural constraints common to economies in the Pacific region result in high staff turnover, limited technical capacity, and weak processes and systems for managing budgets. With the exception of PNG and Timor-Leste, most Pacific economies are facing reduced income flows, resulting in lower government revenues (i.e., declining remittances, reduced returns from overseas investments, volatile demand for exports and tourism, and weak private sector investment). Fiji, Samoa, Tonga, and other small Pacific island economies face high debt levels and are making concerted efforts to bring down budget deficits through public spending cuts. This places increasing pressure on the provision of essential public services such as health and education. Policy makers preparing budgets often exercise their responsibilities with insufficient information about the current fiscal situation and the medium-term impacts of their decisions. Planners and program managers charged with implementing government programs lack adequate information about future resource flows. Other examples of typical challenges faced in Pacific DMC budgeting are summarized in Figure 1.

Medium-term budgeting in the Pacific

The Pacific DMCs' progress in developing MTB systems have varied. The World Bank assesses public financial management system performance through Public Expenditure and Financial Accountability (PEFA) assessments. Recent assessments show that most Pacific DMCs receive relatively low scores (in the D+ to C+ range, on an A to D scale) in terms of their ratings for the "multiyear perspective in fiscal planning, expenditure policy, and budgeting" indicator. While systematic comparisons of PEFA assessments across all Pacific DMCs have not been completed, countries in the East Asia and the Pacific region generally receive scores in the C to C+ range. This is below the average for most Organization for Economic Cooperation and Development countries (which score B+ or higher).

Table 1: Challenges for Pacific DMC budget managers

Stylized characteristics of Pacific economies	Stylized characteristics of PFM systems in the Pacific
Low economic growth rates	Poor planning
Highly vulnerable to shocks	Weak links between policy making, planning, and budgeting
Low revenue base	Poor expenditure control
Strong informal market sector	Inadequate funding of operations and maintenance
Strong public sector presence	Poor budget execution
Low political mobilization	Inadequate accounting systems
	Poor revenue management
	Poor management of external aid
	Poor cash management
	Inadequate reporting of financial performance
	Limited institutional capacity

PFM=public financial management

An assessment of countries' progress in implementing medium-term budgets, based on discussions at the November 2011 Regional Workshop on Building a Better Practice Framework for Medium-Term Budgeting in the Pacific, divides the Pacific DMCs into three groups (Figure 2). The first group comprises those at the "exploratory phase," which include Vanuatu (that has decided to continue with an annual budgeting process) and Solomon Islands and Timor-Leste (that are transitioning to medium-term budgets). The second group of countries, in the "implementation phase," includes the Cook Islands and the Federated States of Micronesia, where multiyear budgeting processes are being implemented. Finally, the "advanced phase" countries, such as Fiji, PNG, and Samoa, have been through several cycles of medium-term budgeting.

Lessons from medium-term budgeting implementation in the Pacific

Experiences of Pacific DMCs in developing MTB systems provide valuable insights into the main obstacles to success and the ways different countries ensured that medium-term budgeting reforms are designed to conform to national circumstances. The experiences also highlight good practices that are useful in guiding future effective and sustainable implementation.

Political commitment is vital: High-level commitment is essential to bringing about lasting change in budgeting systems, processes, and policies. This includes, where appropriate, reforms in the decision-making processes at the cabinet level. These reforms are usually contentious,

Medium-term budgeting in the Pacific

Table 2: Medium-term budgeting implementation

Exploratory Phase	Implementation Phase	Advanced Phase
Solomon Islands Timor-Leste Vanuatu	Cook Islands FSM Kiribati Marshall Islands Nauru Palau Tonga Tuvalu	Fiji PNG Samoa

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

so they require strong leadership within the government to overcome opposition. There must also be a high-level understanding that budgeting systems must be accompanied by complementary policies to achieve the full benefits of MTB. Absent political commitment, MTB is reduced to an exercise in projecting numbers.

Good practice for fostering political commitment:

- Communicate the importance of MTB to public servants in a simple and clear manner (this is particularly relevant for new Cabinet ministers).
- Improve stakeholder communication, which has often been inadequate in the Pacific. Consult communities and nongovernment organizations to develop public demand for MTB reforms.
- Direct policy makers and implementing agencies to conduct their budgeting and planning functions using MTB processes and guidelines.
- Cultivate champions within government and support their efforts to take ownership and set the agenda for reforms.
- Address legal and cultural roadblocks to MTB (e.g., history of extensive and unquestioned ministerial discretion in the Pacific).

Get the basics right: Countries should avoid rushing into developing medium-term budgets if basic functions (e.g., planning, budgeting, accounting, and treasury operations) are not being effectively carried out. Getting the annual budget process right first is critical and should override any imperatives to move to multiyear budgets. Weak management and execution of the annual budget undermine the credibility of the overall public financial management system. This could, in turn, hamper the reform process and erode political support necessary to sustain these efforts.

Both Kiribati and Tuvalu have established medium-term budgets and used them to prepare their 2011 and 2012 annual budgets. For the first time, multiyear estimates of revenues and expenditures were included in the budget. These medium-term budgets included disaggregated projections of revenues and expenditures for sectors and ministries. However, further implementation has been hampered by the lack of timely and credible financial information, such as monthly budget reports, which distorts the overall fiscal picture.

Good practice for getting basics right:

- Develop or obtain credible macroeconomic forecasts. These can be internally generated or taken from an external party such as the IMF.
- Closely monitor compliance with budget and cash management procedures.
- Ensure government ministries (including state-owned enterprises) develop properly costed and prioritized budgets.
- Consolidate the revenues and expenditures (including trust funds, state-owned enterprises, development partner financing, borrowing) of all government agencies into the annual budget.
- Raise financial reporting standards to ensure that reports are timely and accurate.

Implement MTB at the country's own pace: If MTB reforms are to be effective and sustainable, they must be tailored to the country's context. This means getting the pace and sequence of implementation right at the beginning and ensuring that the necessary building blocks are in place. Proceeding through the stages of MTB implementation is an incremental process that requires appropriate capacity development efforts. Those tasked with implementing MTB need to ask simple questions such as the following: Do we have the technical capacity, institutional structures, and coordination arrangements to implement the needed changes? Can we work within existing financial legislation and regulations? Can our existing information technology infrastructure cope once the changes are being implemented?

Solomon Islands, for example, is about to initiate its medium-term budgeting reforms following approval of the National Development Strategy 2011–2020 last year. The strategy provides the overarching framework for linking national, sector, and provincial development plans to the annual budget via a stronger corporate planning process, and is an important building block for implementing MTB in the country.

Good practice for properly pacing reforms:

- Gradually integrate medium-term budgets into existing budget processes and management structures, providing participants adequate time to learn and develop through the reform process.
- Build and develop core capacities based on identified skill gaps within the relevant ministries and central agencies.
- Transition to a standard approach to medium-term budgeting gradually.
- Prepare standard guidelines and templates for budgets and train relevant personnel in their use. Develop longer-term forecasting capacity and introduce forecasts into the budgeting process of select ministries on a pilot basis.
- Engage with development partners as early as possible in the process to ensure that the country sets the structure and process for change, and that it leads rather than follows the dialogue. Pay due regard to the risks of reform overload and breaching absorptive capacity constraints.

Medium term budgeting in the Pacific

It should be recognized that even when MTB is properly executed, if government agencies lack necessary capacity to implement programs under their jurisdiction, service delivery will not improve. PNG provides a useful example in this regard. Despite a decade of economic growth, fiscal stability, and increasing government expenditure, the quality of public service delivery in areas like education and health has improved little. No matter how sound medium-term fiscal strategies are, unless agencies charged with implementing government policy are strengthened, the quality of public services is unlikely to improve. For PNG, this remains the central challenge in converting its mineral wealth into inclusive economic growth.

Keep MTB systems as simple as possible: Countries can use simple analytical tools and processes to meet their budgeting needs. For example, in smaller jurisdictions, simple spreadsheet-based models can be just as effective as multi-module budgeting software packages. Indeed, the risks in developing complex budgeting models, which generally require greater assumptions, often exceed the benefits. The more complex the budgeting model, the more difficult it is to understand results and validate assumptions. There are numerous examples of development partner-funded models for economic forecasting and treasury management that are not well suited to the operating environment. Such models quickly fall out of date with limited or no uptake by national staff.

Opportunities for making minor adjustments to existing processes or tools that yield significant benefits in terms of improved communication, quicker decision making, and more rigorous analysis should be pursued. For example, in Kiribati and Tonga, it was found that several modules within their respective financial management information systems had been underutilized, and training staff on their proper use could result in more regular and accurate management reports.

Consultants supported by PEM TA are working with other Pacific DMCs to develop FMMs in cooperation with key technical personnel in the government.

Next steps: Continuing support for medium-term budgeting

ADB and other development partners working in the Pacific are pursuing a number of planned and ongoing regional activities to assist Pacific DMCs in improving their budgeting and financial management capacity. These efforts leverage the lessons learned from the region's experiences with medium-term budgeting and include the following:

- ADB is developing generic citizen guidelines on understanding the annual budget.
- One output of the PEM TA is preparation of a generic fiscal management model and manual, which can be tailored to individual country circumstances.
- The Pacific Financial Technical Assistance Centre (PFTAC) is launching a dedicated website for the Pacific Islands Financial Manager's Association (PIFMA) that will include a medium-term budgeting section compiling good practice guidelines. The website will allow countries to upload their budget templates and tools, and will provide access to the FMM model being developed through the PEM TA.
- ADB and PFTAC are developing capacity building and training programs on accounting and financial reporting. This will include the development of a competency framework in these areas that will guide future PIFMA training and capacity building.

These regional activities are supporting national efforts to implement medium-term budgeting. ADB and PFTAC are supporting these efforts in several Pacific island countries including the Cook Islands, Kiribati, the Marshall Islands, Nauru, and Tonga.

Good practice for developing simple MTB tools:

- Fiscal management models (FMM) are spreadsheet-based simulation tools that provide a simple and easy-to-maintain budgeting tool. They produce visually appealing and easy-to-understand results that highlight the long-term fiscal impact of policy decisions and financial commitments. Such tools are ideal for small and constrained operating environments, which have limited technical capacity and resources.
- With support from ADB's Pacific Economic Management Technical Assistance (PEM TA) project, the Cook Islands and Tonga developed, and are maintaining and using FMM for their budget and development planning.
- The Cook Islands and Tonga are using their models to gain political-level understanding and support for recognition of medium-term implications of policy decisions on public debt levels (and thus fiscal sustainability).

Lead author: Laisiasa Tora. This article draws from outputs of the "Regional Workshop on Building a Better Practice Framework for Medium-Term Budgeting in the Pacific" held in Nadi, Fiji on 8–9 November 2011.

Budgeting for road maintenance in the Pacific

"An ounce of prevention is worth a pound of cure."
Benjamin Franklin from Poor Richard's Almanack, 1739.

Policy makers allocating scarce public expenditures for road maintenance in developing economies often have a hard time commanding resources amid competing priorities. Not surprisingly, inadequate financing of road maintenance is common, and many countries suffer from cycles of expensive road construction followed by inadequate maintenance that eventually requires costly road rehabilitation or reconstruction. Poorly maintained roads impose high costs on vehicle operators, in terms of longer travel times and increased damage to vehicles and goods. This article examines these issues in the context of Timor-Leste. Budgeting for road maintenance in Papua New Guinea is also briefly discussed.

Road conditions and maintenance in Timor-Leste

What will be the condition of Timor-Leste's roads in 2015 and beyond? Will they be in a better condition than today, or will they have deteriorated? Projections of the condition of national roads for different levels of expenditure are analyzed in Box 1 and indicate that a continuation of past levels of maintenance would lead to a substantial deterioration in the quality of national roads. It is projected that within 10 years, most roads would generally be usable only by four-wheel drive vehicles and at slow speeds, if expenditure remains at previous low levels.

A 25% or a 50% increase in maintenance expenditure would help, but there would still be severe deterioration. Within 10 years, national roads would be difficult for two-wheel drive vehicles (2WDs) to use, travel would be slow, and vehicles would suffer considerable damage from the rough roads. The solution is found to be a substantial increase in expenditure on rehabilitation, coupled with adequate maintenance over the long run.

Clearing the backlog of rehabilitation works by 2015 offers the best solution. Doing so would lead to an immediate improvement in the quality of national roads. Instead of deteriorating, roads would generally be usable by 2WDs at high (and safe) speeds. The cost of the extra works would be more than offset by extra benefits for users. It is projected that a budget over 2012–2027 of about $300 million would generate benefits of about $900 million (in present value terms). Clearing the backlog by 2017 would also generate substantial benefits that would more than outweigh the costs.

The projections are based on low estimates of unit costs. But even if unit costs were higher, there is a sound case for quickly rehabilitating national roads. The projections do not factor in the upgrades required for some national roads to accommodate rising traffic volumes. Wider roads and improved alignment would both contribute to and be required by a high rate of economic growth. A substantial increase in expenditure on the maintenance, rehabilitation, and upgrade of national roads is essential to achievement of the Strategic Development Plan 2011–2030.

Budget implications

Clearing the backlog of works would require an additional budget allocation for national roads of up to $135 million over the next 15 years. This is equivalent to up to $85 million in present value terms.

This cost estimate is conservative. The projections assume an average unit cost for rehabilitation of around $200,000 per kilometer; it will be higher than this in mountainous areas, but lower in flatter areas where roads are in better condition. This unit cost provides for basic rehabilitation only and does not factor in the emergency work required by landslides, shifting rivers, and other unpredictable events. The unit cost could be as much as $400,000 per kilometer if a thick asphalt overlay is used to strengthen the road and reduce road roughness.

Importantly, the unit cost will rise the longer rehabilitation is delayed, and with it the budget required to clear the backlog of works. This is because the roads will deteriorate further the longer rehabilitation is deferred.

Table 1: Road maintenance budget scenarios ($ millions, 2012–2027)[a]

Scenario	Required budget	Net present value
Existing maintenance budget	166	118
25% increase in maintenance	218	135
50% increase in maintenance	278	161
Backlog cleared by 2017	292	182
Backlog cleared by 2015	300	204
Backlog cleared in 2012	300	220

a Based on conservative cost estimates and the grossing-up of estimates prepared for 85% of national roads.
Source: ADB. 2011. Timor-Leste 2011 Road Outlook. Dili.

Budgeting for road maintenance in the Pacific

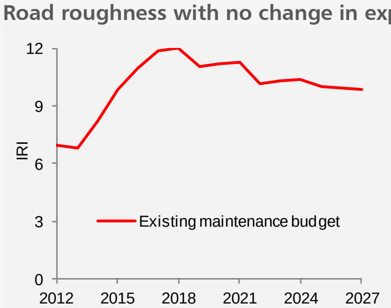
Box 1: Road quality projections for Timor-Leste

Scenario A: The current maintenance budget

The quality of a road can be measured by its roughness. At present, the average roughness of national roads is around 7 against the international roughness index (IRI). At an IRI of 6, roads are usable by 2WDs, but at low speeds. At an IRI of 8, roads have deteriorated to an extent that travel is rough as well as slow, and are damaging 2WD vehicles. It is projected that the IRI could rise to 12 within 10 years, possibly as early as 2018, if maintenance expenditure on national roads continues at recent levels (around $10 million annually).

Roads that are poorly maintained deteriorate at an increasingly rapid rate. While poorly maintained roads can remain usable for a few years after construction or rehabilitation, they then begin to deteriorate, and the rate of deterioration accelerates the longer they are poorly maintained. This is the current situation facing much of the national road network. Without rehabilitation, the current level of maintenance expenditure will be too low to prevent a substantial decline in road quality. Within 10 years, many of the national roads will be unusable by 2WDs if the expenditure remains at recent levels.

Figure 1: Road roughness with no change in expenditure

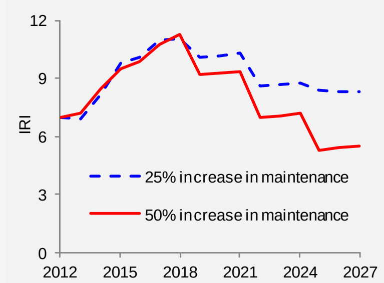


IRI=international roughness index
Source: ADB. 2011. Timor-Leste 2011 Road Outlook. Dili.

Scenario B: 25% and 50% increase in the maintenance budget

Can an increase in the maintenance budget avoid the situation? Projections show that a 25% or even a 50% increase in maintenance expenditure would be insufficient. A 25% or 50% increase in maintenance expenditure would limit the peak IRI from 12 to about 11 within 10 years. While an improvement, most national roads would still be largely unusable by 2WDs.

Figure 2: Road roughness with additional maintenance



IRI=international roughness index
Source: ADB. 2011. Timor-Leste 2011 Road Outlook. Dili.

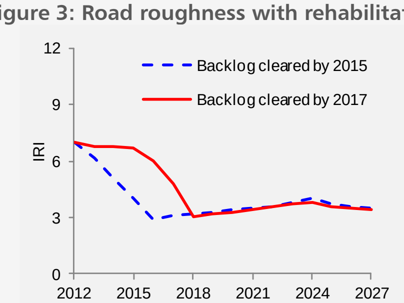
Scenario C: Clearing the backlog of road maintenance work

Low levels of expenditure on maintenance have created a backlog of works. Roads that could have been kept in good condition with regular maintenance now need rehabilitation. Rehabilitation is required to return roads to a maintainable standard and ensure that travel is faster and safer.

Projections have been prepared for two rehabilitation scenarios: one where the backlog is cleared by 2015, and one where the backlog is cleared by 2017.

Both rehabilitation scenarios would quickly reduce the average roughness of national roads. The IRI could be reduced from the current level of about 7 to below 4. At an IRI of 4, roads are readily usable by 2WDs, and travel is generally fast and safe. The earlier the backlog of works is cleared, the earlier the IRI is reduced to below 4. An IRI of about 4 provides a good target, being a typical international standard for roads of similar characteristics to Timor-Leste's national roads.

Figure 3: Road roughness with rehabilitation



IRI=international roughness index
Source: ADB. 2011. Timor-Leste 2011 Road Outlook. Dili.

Benefits

The improved road conditions provided by rehabilitation will generate benefits for road users. Better roads reduce the operating costs of vehicles because less fuel and oil is used per kilometer when travel is faster and smoother. Better roads also reduce the wear and tear on vehicles, reducing repair and maintenance costs and ensuring vehicles last longer. Even public transport users benefit, as lower costs mean lower fares. Better roads also reduce travel times, which provides a cost saving for businesses, commuters, and nonwork travelers.

In monetary terms, these benefits will be $886 million when the backlog in works is cleared by 2015. There are also large benefits from just increasing maintenance, and even from continuing maintenance expenditure at recent levels, but they are much lower than the benefits provided by rehabilitation.

Budgeting for road maintenance in the Pacific

Deducting the costs from the benefits provides an estimate of net benefit, which is the improvement in national welfare or well-being provided by expenditure on the national roads.

The net benefit is highest when the backlog of works is cleared quickly. For example, the net benefit of clearing the backlog of works by 2015 is $682 million (in present value terms). This is equivalent to nonpetroleum gross domestic product for 2010. The rehabilitation of national roads could generate approximately an additional year of nonpetroleum gross domestic product over 2012–2027.

Table 2: Summary of benefits (2012–2027)[a]

Scenario	Benefits (in $ million, present value)	
	Gross	Net
Existing maintenance budget	546	428
25% increase in maintenance	648	513
50% increase in maintenance	708	547
Backlog cleared by 2017	829	647
Backlog cleared by 2015	886	682
Backlog cleared in 2012	915	695

$= US dollar

a Based on conservative cost estimates and the grossing-up of estimates prepared for 85% of national roads.

Source: ADB. 2011. Timor-Leste 2011 Road Outlook. Dili.

The net benefit from the existing maintenance budget, or increases of 25% or 50% on this budget, is also sizeable. But it is much less than the benefit available from clearing the backlog of works via rehabilitation.

The need for upgrading

Rising traffic volumes will require progressive upgrading of much of the national road network, including widening and improvements to the alignment (e.g., to straighten curves). While motorcycles account for most traffic at present, the importance of large vehicles will expand as the economy grows, adding to the imperative to upgrade.

The net benefits of upgrading are not examined in the projections, but are expected to be substantial. Separate analysis makes the case for upgrading national roads with high traffic, as proposed in the Strategic Development Plan 2011–2030.

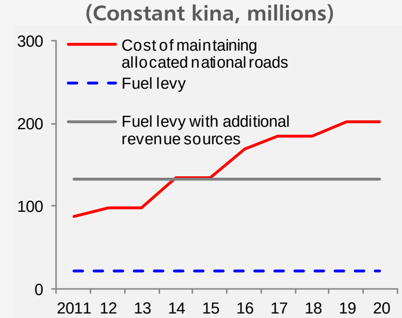
Box 2: Funding Road Maintenance in Papua New Guinea

High rainfall, rugged terrain, poor law and order, and limited competition among contractors make the cost of road maintenance in PNG particularly high. The government estimates that, on average, it costs approximately $17,000 per kilometer per year to adequately maintain national highways for the first 5 years of their life, and $27,000 per year thereafter. However, the cost of not adequately maintaining PNG's road network is even higher. Without proper maintenance, PNG's national road network deteriorates rapidly, restricting people's ability to sell goods at market, increasing the cost of accessing health and education facilities, and imposing large costs on vehicle users. With costs ranging between $240,000 and $480,000 per kilometer for a full-scale rehabilitation of deteriorated roads, it can be 2–3 times cheaper to allocate adequate levels of road maintenance funding rather than allowing roads to fall into disrepair before being rebuilt.

There is now widespread acceptance within the PNG government of the importance and value of road maintenance. In 2006, the PNG government established the National Roads Authority (NRA) in an attempt to address chronic funding shortfalls. The NRA was tasked to maintain 2,100 kilometers of priority national roads (accounting for roughly 25% of the total). The NRA is being funded through a dedicated excise duty collected on diesel. This mechanism was envisioned to provide a sustainable flow of funds to support the NRA on a cost recovery basis.

Recent experience shows, however, that the fuel levy currently covers less than a quarter of the funding required by the NRA to properly maintain its designated road network. The NRA is currently exploring a number of options to obtain new funding sources to dramatically increase its revenue collection and fully meet its expenditure obligations to 2015. Providing additional funding for road maintenance can lower the long-term cost of providing a high-quality road network for its citizens, and would be a vital step in fostering more inclusive economic growth across the country.

Figure 4: National Roads Authority revenue and expenditure
(Constant kina, millions)



Source: ADB. 2011. *Technical Assistance to PNG for Improving Road User Charges and Private Sector Participation in Road Development,* 3rd Progress Report. Manila.

Budgeting for road maintenance in the Pacific

General conclusions

- The national road system is deteriorating, and is likely to be largely unusable within 10 years if the budget remains around recent levels. If this occurs, the national road system would strangle development. The Strategic Development Plan 2011–2030 would be unachievable.
- Even after taking into account the extra cost of rehabilitation, the nation is much better off by rehabilitating national roads. A good target is an international standard of an IRI of around 4.
- Rehabilitating the national roads to this standard would require an extra budget of at least $120 million by 2015. This is a conservative estimate, and it is safer to allocate something like $200–$250 million extra by 2015. Upgrading would cost more.
- It is better to rehabilitate sooner rather than later. The short-term priorities are those road sections with the highest traffic volumes.
- It is important, however, not to ignore roads with low volumes. Many are in poor condition, and this is probably one reason why traffic levels are so low. Once improved, traffic volumes could increase substantially.

Recommendations

- Proceed quickly to planning and implementing road upgrades and rehabilitation. The benefits will outweigh the costs by as much as 4 to 1.
- Front-load road works over the 2012–2015 period, as this will maximize the benefits and the boost to the economy from fixing the national roads.
- Closely monitor project quality so that a surge in road investments is not at the expense of value for money.
- Increase the ongoing maintenance budget so as to preserve the investment being made in national roads.
- Keep building the capacity of national contractors so there is the human capacity to maintain the national roads over the long term.

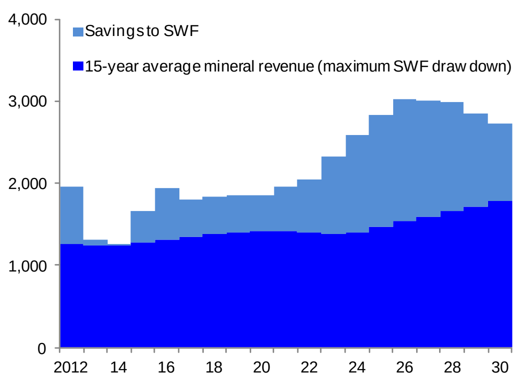
Lead authors: Richard Phelps and Craig Sugden, with contributions from Aaron Batten and Douglas Lucius. For the full analysis refer to ADB. 2011. Timor-Leste 2011 Road Outlook, Dili (forthcoming) and Japan International Cooperation Agency 2011. Maintenance/Repair Plan for Arterial (National) Roads in Timor-Leste. Volume-1: Main Text. Project for the Capacity Development of Road Works in Timor-Leste. Dili.

Sovereign wealth management in Papua New Guinea

The Organic Law on Sovereign Wealth Fund (SWF) Management (passed 21 February 2012) offers significant advantages for directing the management of volatile resource revenues over current policies. Under the law, all future mining, oil, and gas revenues (to be collectively referred to as "mineral revenues") will be deposited into an offshore stabilization fund, which shall be overseen by an independent board and subject to enhanced governance, transparency, and asset management rules. Withdrawals from the stabilization fund will be fully integrated into the national budget process and restricted to the average of the past 15 years of past mineral revenues. With unspent mineral revenues being held in foreign currency assets, the SWF will serve to smooth public finances and minimize the impact of mineral revenues on the exchange rate. However, a number of features of the new law could undermine the SWF's long-term effectiveness as a tool for both improving public financial management and translating mineral revenues into inclusive economic growth.

One of the features of the new law is its drawdown rule, which effectively makes the SWF an expenditure smoothing fund rather than a savings fund. Revenues from current mining operations are expected to fall by as much as 30% over the next 3 years. Hence, the addition of LNG revenues in 2015 will only be sufficient to restore mineral receipts (in real terms) to a level slightly below 2011 receipts—and well below those realized during their peak between 2006 and 2008. As the bulk of LNG revenues will be used for expenditure smoothing, estimates suggest that the SWF is unlikely to accumulate significant offshore savings until after 2023, when LNG tax concessions will decline.

Figure 1: Projected allocation of mineral revenues
(current prices, '000 kina)



SWF=sovereign wealth fund
Sources: PNG Department of Treasury and ADB estimates.

One concern about the low offshore savings rate arising from the drawdown rule is that it may lead to significant upward pressures on PNG's nominal exchange or inflation rates. This would adversely affect the international competitiveness of PNG's non-mineral exports and harm import competing industries. An opposing view, however, is that PNG has significant investment needs that justify the immediate utilization of additional mineral revenues.

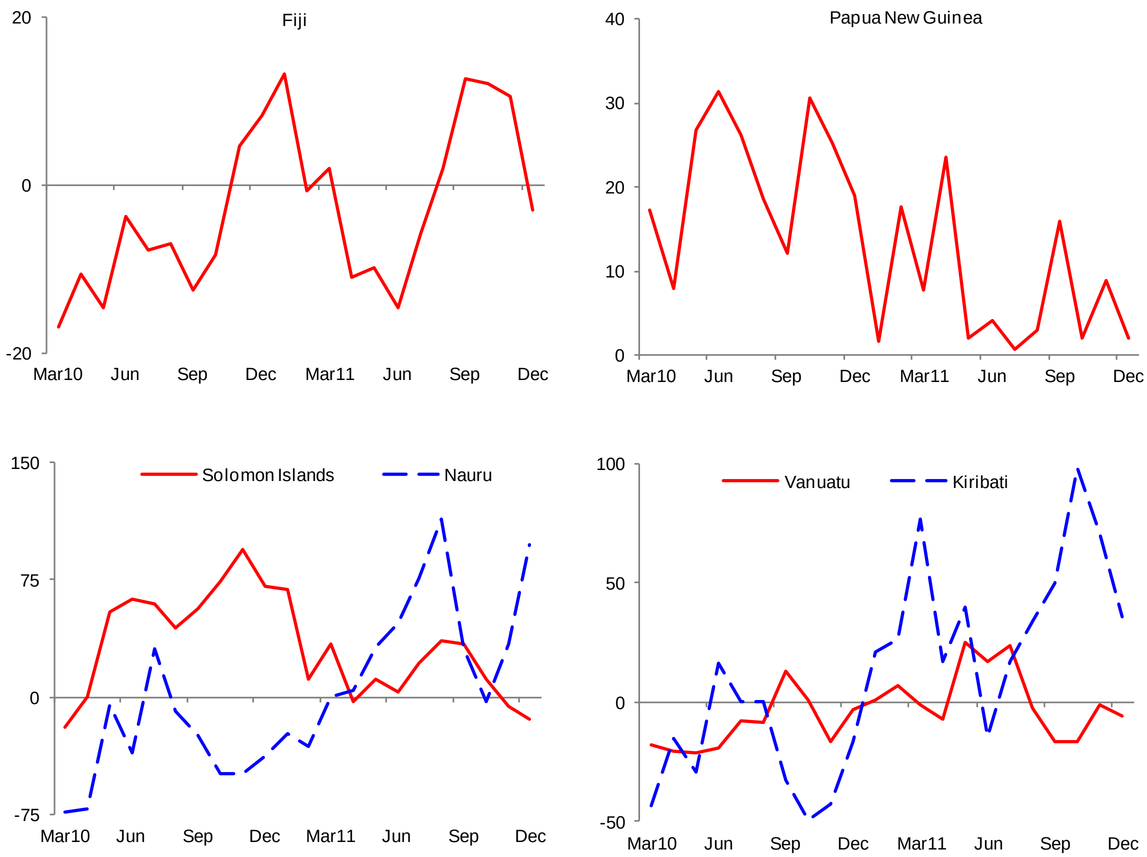
The appropriate balance between spending SWF revenues and saving them offshore for future use depends on the PNG government's capacity to effectively translate increases in government expenditure to improved service delivery. The PNG government is currently showing signs of capacity constraints in implementing development plans supported by rising expenditures. This suggests that during the initial years of SWF implementation a higher rate of savings might be more appropriate until the government undertakes necessary public financial management reforms.

In an attempt to address public sector capacity constraints, the SWF also creates a number of new investment agencies aimed at streamlining the funding of national development priorities, including an infrastructure authority and a state-owned enterprise capitalization account. These agencies will receive earmarked funds accruing to government from its 19.4% equity stake in the PNG LNG project. While the creation of new funding mechanisms may help to circumvent some of PNG's existing public financial management bottlenecks, it also has the potential to duplicate existing agencies and budget processes and potentially undermine overall expenditure quality. The proposed infrastructure authority is likely to absorb skilled staff from existing agencies, hollowing out already under-resourced service delivery institutions.

Addressing these issues will play a central role in the SWF's ability to convert future mineral revenues into inclusive economic growth. At the core of SWF management efforts must be a renewed push by government leaders to strengthen existing government agencies and systems—not the creation of new funding mechanisms that undermine institutions and further complicate PNG's public financial management environment. Further, linking future increases in government expenditure to improvements in the ability of the public service to effectively implement expenditure plans will help ensure that mineral wealth is translated into improved development outcomes.

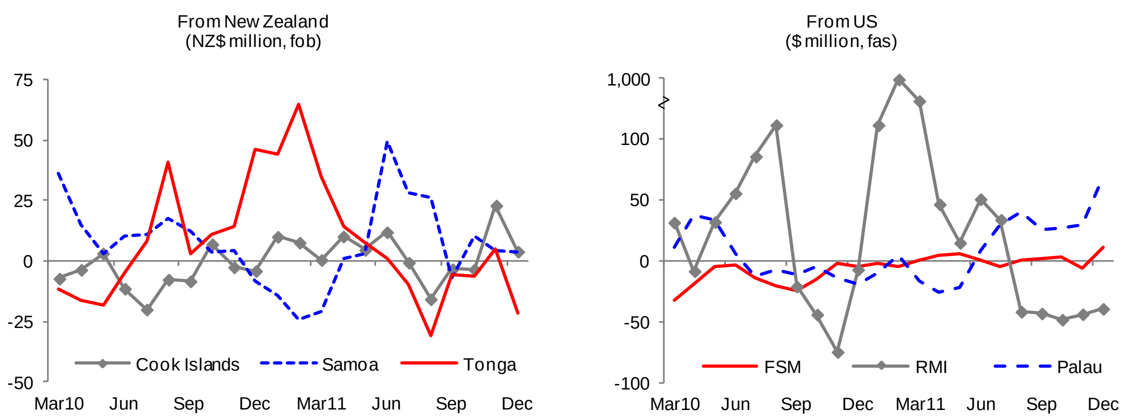
Lead author: Aaron Batten.

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



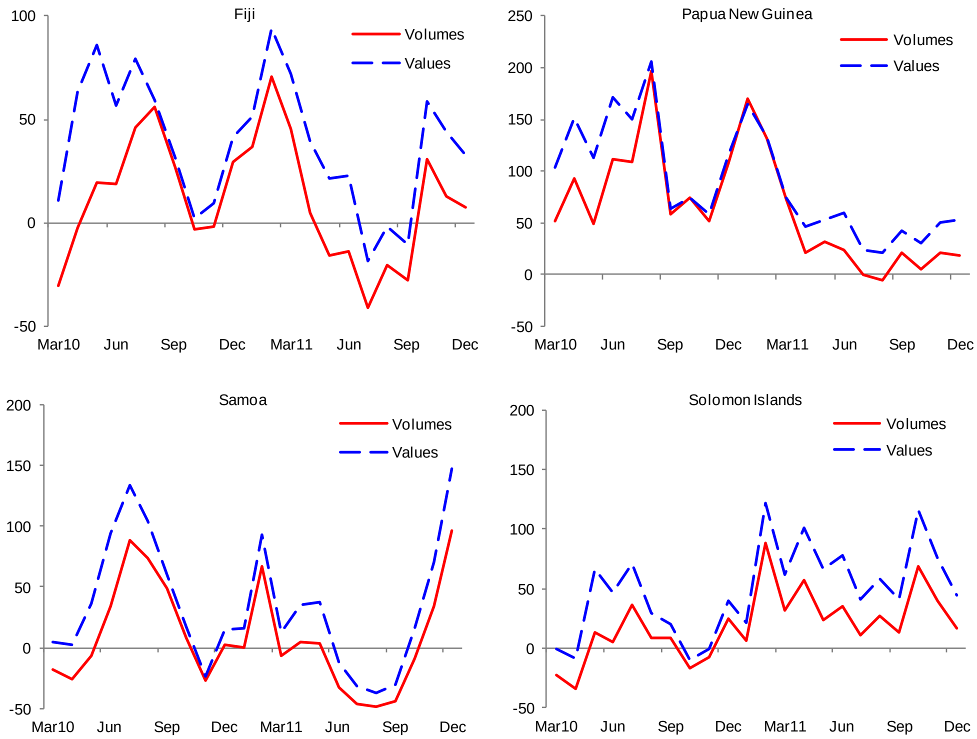
A$ = Australian dollars
Source: Australian Bureau of Statistics.

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

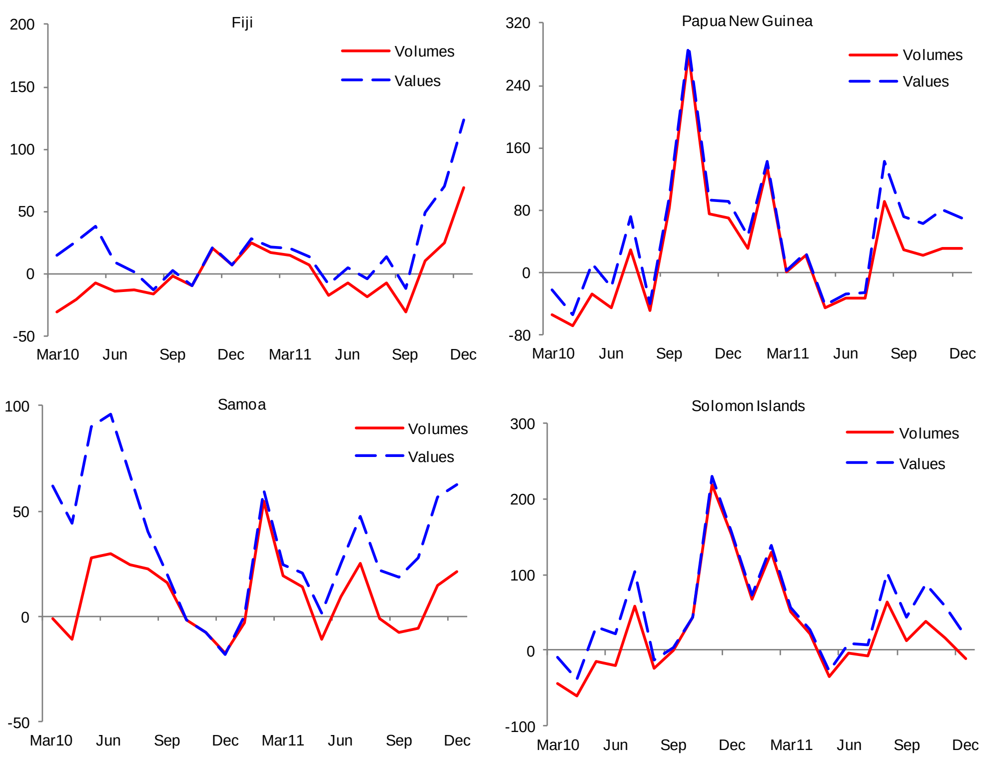


FSM=Federated States of Micronesia, fas=free alongside, fob=free on board, NZ$=New Zealand dollar, RMI=Republic of the Marshall Islands, US=United States
Note: The Cook Islands–Fiji shipping route closed in 2009.
Sources: Statistics New Zealand and US Census Bureau.

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

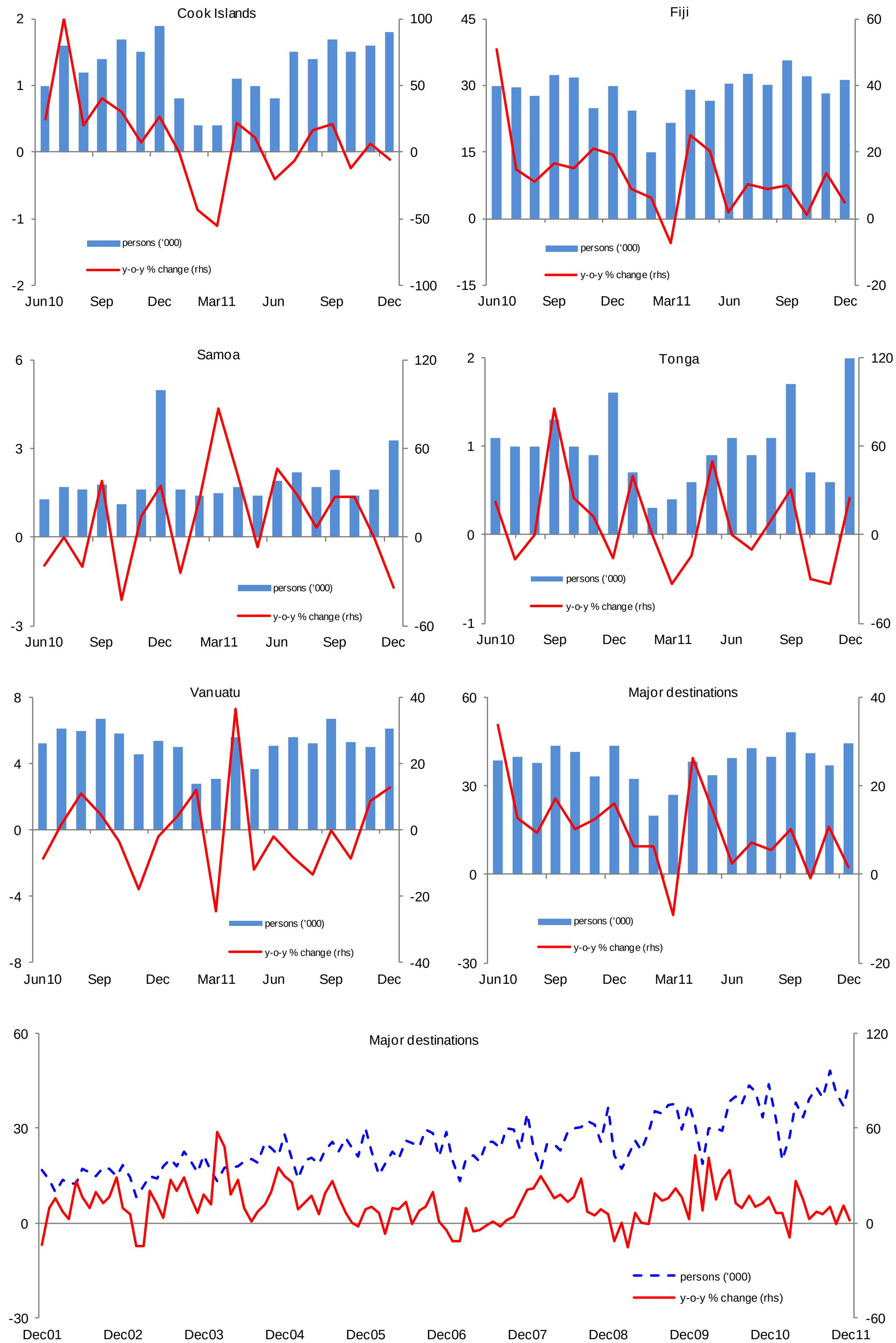


Gasoline exports from Singapore
(y-o-y % change, 3-month m.a.)



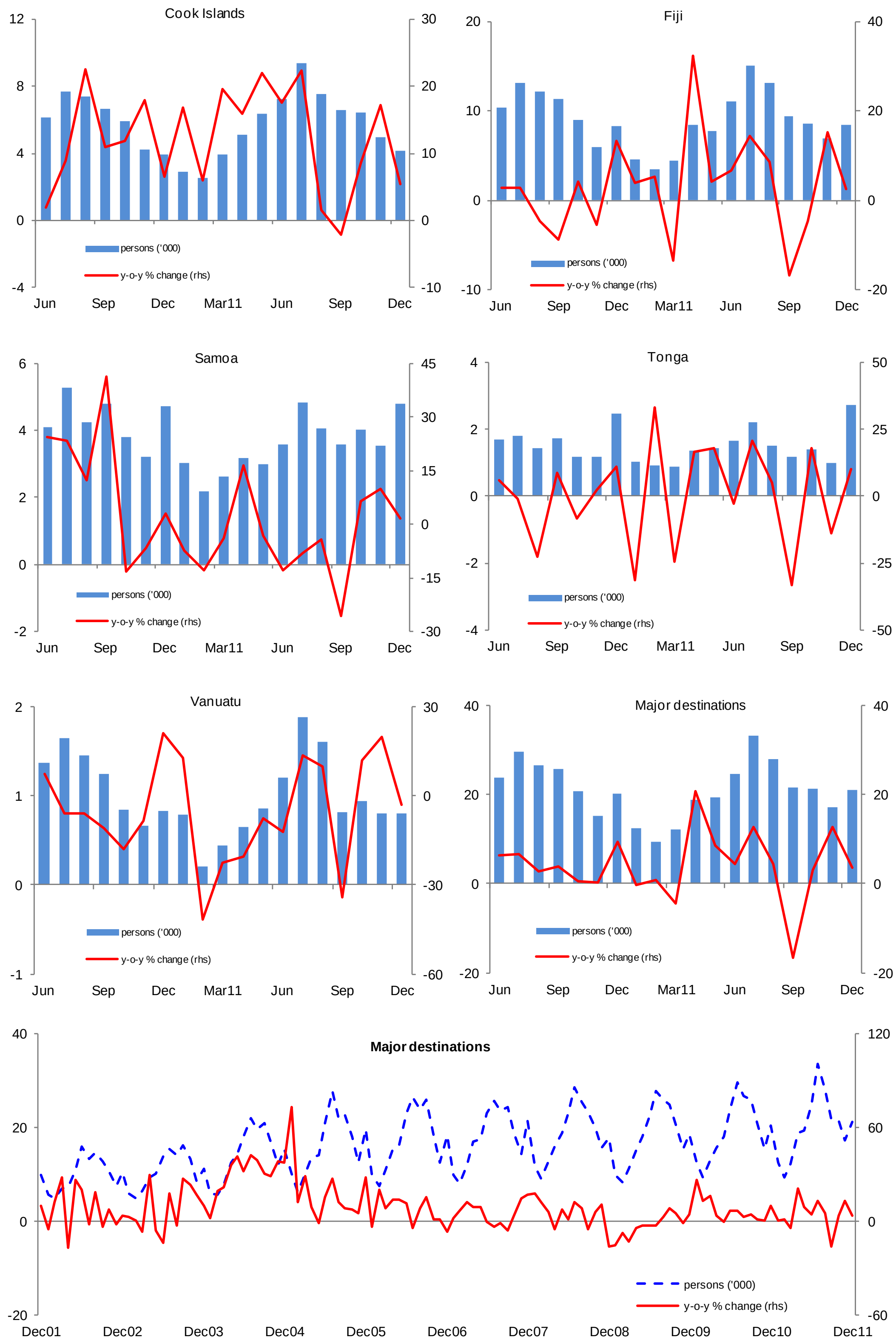
Source: International Enterprise Singapore.

Departures from Australia to the Pacific (monthly)



Sources: Australian Bureau of Statistics and Tourism Research Australia.

Departures from New Zealand to the Pacific (monthly)



Source: Statistics New Zealand.

Latest Economic Updates

	GDP Growth	Inflation	Credit Growth[a]	Trade Balance	Import Cover	Fiscal Balance
	(%, 2012p)	(%, 2012p)	(%)	(% of GDP)	(months)	(% of GDP)
Cook Islands	5.4	3.0	–4.5 (Jun-Q 2011)	–104.8 (FY2011e)	—	–1.4 (FY2011e)
Fiji	1.0	6.2 (Feb 2012)	6.5 (Jan 2012)	–26.1 (2011e)	4.7 (Feb 2012)	–3.5 (2011e)
Kiribati	3.5	5.5	—	–42.8 (2009)	—	–15.0 (2011f)
Marshall Islands	5.4	2.5	2.1 (FY2010e)	–57.3 (FY2010e)	—	1.4 (FY2011e)
FSM	1.0	3.5	12.6 (Dec 2009)	–46.2 (2009e)	2.7 (FY2009)	0.4 (FY2011e)
Nauru[b]	4.8	1.5	—	—	—	0.6 (FY2011e)
Palau	3.0	2.0	—	–46.3 (FY2010e)	—	–1.6 (FY2011e)
PNG	7.5	7.0	7.2 (Sep 2011)	12.8 (Jan-Jun 2011)	10.4 (Sep 2011)	0.3 (2011e)
Samoa	2.5	5.0	6.9 (Sep 2011)	9.6 (2011e)	6.1 (Aug 2011)	–8.1 (FY2011e)
Solomon Islands	6.0	5.5	12.4 (Feb 2012)	–1.2 (Jan-Jun 2011)	10.0 (Jan 2012)	2.1 (FY2011e)
Timor-Leste[c]	10.0	10.2	17.4 (Jun-Q 2011)	–63.7 (2010e)	—	217.0 (2011f)
Tonga	0.4	6.0	–10.8 (Dec 2011)	–30.9 (FY2011e)	9.0 (Dec 2011)	–2.5 (FY2011e)
Tuvalu	1.4	2.6	—	—	—	–14.0 (2011e)
Vanuatu	4.5	3.0	7.0 (Dec 2011)	–31.6 (Sep-Q 2010)	6.5 (Oct 2011)	–0.7 (2011e)

— = not available, e=estimate, FSM=Federated States of Micronesia, GDP=gross domestic product, PNG=Papua New Guinea, p=projection, Q=quarter, y-o-y=year on year

[a] Credit growth refers to growth in total loans and advances to the private sector.

[b] Inflation for Nauru is on a year-to-date basis.

[c] 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 non-mining and oil imports.

Sources: ADB. 2011. *Asian Development Outlook 2011 Update*. Manila; and statistical releases of the region's central banks, finance ministries and treasuries, and statistical bureaus.

Key data sources:

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

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.8 billion people who live on less than $2 a day, with 903 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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