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

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**Highlights**

- **Recent developments.** The Pacific countries continued to benefit in from the recovery in the world economy over 2010. Economic growth for the year as a whole was, however, low in most cases. In the Pacific islands, growth was 0.8% overall in 2010. The resource-rich Papua New Guinea (PNG) and Timor-Leste continued their recent good performance, growing by 7.0% and 9.5%, respectively, in 2010. The Pacific (the Pacific islands and PNG and Timor-Leste) grew by an estimated 5.3% in 2010.

- **Outlook.** The resource-rich economies are again expected to be the best performers in 2011. Timor-Leste is projected to grow by 10.0% on the back of continuing expansion in government expenditure funded by offshore petroleum revenue. Preparations for production of liquefied natural gas will continue to support the PNG economy, which is projected to grow at 8.5% in 2011. The recommencement of gold production is projected to help expand the Solomon Islands economy by 7.5% in 2011. Increased phosphate exports are expected to help Nauru return to a moderate growth rate.

- A positive outlook for the Australian and New Zealand economies underpins an expected rise in tourism to the Pacific islands in 2011 and some recovery in remittance flows. These sources of growth will be particularly important for the Cook Islands, the Fiji Islands, Kiribati, Samoa, Tonga, Tuvalu, and Vanuatu.

- The Pacific island economies are projected to grow by only 1.7% in 2011, while the Pacific is expected to record overall growth of 6.3% in 2011. Growth is expected to remain close to these levels in 2012.

- The recent rise in commodity prices will reinforce the pattern of relatively better performance from the resource-rich economies. As in the 2008 episode of high commodity prices, the region’s producers of petroleum and mineral commodities and the exporters of agricultural products will benefit. Other Pacific economies will bear the brunt of the rise in import prices, and face the prospect of higher inflation that will erode living standards.

- The more remote and import-dependent Pacific Island economies—notably the Federated States of Micronesia, Kiribati, the Marshall Islands, and Tuvalu—are particularly exposed to the economic costs of higher world fuel and food prices.

- Inflation of 4.0% is expected across the Pacific island economies in 2011. Inflation of 6.5% is projected for the entire Pacific, up slightly on the 5.3% in 2010. If commodity prices stay close to recent highs, higher inflation rates can be expected.

- **Economic policy and management.** This issue explains the techniques used by the **Monitor** team to forecast inflation and tourism. Long-term projections of economic growth are presented for Timor-Leste drawing on Asia’s experience.

- This issue also provides an update on the Asian Development Bank’s regional technical assistance, the Pacific Economic Management project, and in the provision of economic support by the Pacific Financial Technical Assistance Centre.
Latest Asian Development Bank projections

GDP growth

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Inflation

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Note: Projections are as of February 2011 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.
World economic recovery continues; outlook for remittances positive

- The global recovery is continuing but the pace is varying across regions. The International Monetary Fund (IMF) estimates that world GDP expanded by 5.0% in 2010, and projects growth at 4.4% in 2011 and 4.5% in 2012. Growth in developing Asia remains robust, supported by strong domestic demand and industrial production.

- Economic recovery is well advanced in the United States (US). In February 2011, consumer confidence reached a 3-year high, and firms are expected to increase capital spending this year. Labor market conditions are, however, yet to show significant improvement. Fiscal consolidation and the flow-through effect of sovereign debt problems in Europe are restraining growth in the US to moderate levels.

- The economic outlook for Australia and New Zealand is slightly more positive, despite recent natural calamities. Disaster recovery expenditure and rising commodity prices are expected to boost their gross domestic product (GDP) through 2011.

- The world recovery is supporting a sustained increase in remittance flows to developing countries. The World Bank forecasts that overall remittances to East Asia and the Pacific will increase by 7.5% in 2011, after a rise of 6.4% in 2010. This provides some confidence for an increase in remittances to the Pacific over the medium term.

Unemployment high; commodity prices rising

- Unemployment in Australia, New Zealand, and the US remains above pre-crisis levels. The unemployment rate in Australia and the US during fourth quarter of 2010 was unchanged from the previous quarter, and rose slightly to 6.8% in New Zealand. Among Pacific islanders in New Zealand, the unemployment rate remained unchanged at 13.5% in fourth quarter of 2010.

- Employment growth in Australia and New Zealand was rising throughout 2010. If these economies continue to grow, as expected, the unemployment problem should ease over the medium term.

- Inflation pressures are increasing because of rising prices of key commodities. The increase in commodity prices became acute in the latter part of 2010. The IMF’s food index rose sharply in December 2010 to a level close to its June 2008 peak. Prices of coconut oil, palm oil, and logs, the region’s major export commodities, are also up. Continued robust demand from Asia and weather-induced supply disruptions are among the factors contributing to the price increase.

- Oil prices have recently reached multiyear highs on the back of the risk of supply disruptions, a result of the volatile political situation in a number of countries in the Middle East and North Africa.

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A view from neighboring economies

Nonfuel exports to the Pacific (value; y-o-y % change, 3-month m.a.)

![Graph showing nonfuel exports to the Pacific from Australia and New Zealand.]

Sources: ABS and Statistics New Zealand.

Departures for the Pacific (‘000 persons; January to December totals)

![Graph showing departures for the Pacific from Australia and New Zealand.]

Sources: ABS and Tourism Strategy Group, New Zealand Ministry of Economic Development.

Rising import growth

- Growth of the value of the Pacific’s nonfuel imports from Australia accelerated to about 20.0% (y-o-y) over the last quarter of 2010. For the year, the value of nonfuel imports was up by 11.3%. The value of the Pacific’s nonfuel imports from New Zealand also increased in late 2010, after slow growth early in the year. The growth in the value of nonfuel imports was more than 12.0% (y-o-y) in the last quarter, giving a total expansion of 7.1% for 2010. While the increase in commodity prices contributed to the increase in the value of imports later in the year, there are indications of some underlying improvement in demand.

- There was strong growth in import values throughout the year in PNG, and in the latter half of 2010 in Solomon Islands. Nonfuel exports from Australia to the Fiji Islands rose slightly in late 2010, after more than a year of decline. There were some encouraging signs from Tonga. The growth in the value of imports was subdued elsewhere in the region.

- Broadly similar regional patterns are evident in motor vehicle imports from Japan. Motor vehicle imports were up in 2010 in the Fiji Islands, PNG, and the Solomon Islands. The surge in imports in Samoa resulting from the switch to left-side driving appears to have ended. Across the region there was a general weakening trend in demand over the year.

Solid tourism performance, particularly in the Cook Islands and the Fiji Islands

- Tourism to Pacific destinations continued to expand in 2010 on the back of a resurgence in Australian tourism. Growth in the number of New Zealand tourists remained modest.

- Australian tourism to the Pacific increased by 19.1% in 2010. The primary source of growth was the rejuvenated flow of Australian tourists to the Fiji Islands, which posted high growth of 28.4%. The recovery in tourism to the Fiji Islands was, however, partly at the expense of other destinations in the region. Departures from Australia to Samoa posted minimal growth, while contractions were recorded for both Tonga and Vanuatu. The number of Australian visitors to the Cook Islands rose by about 30.0% in 2010.

- Departures from New Zealand to the Pacific rose by 5.8% in 2010, with particularly rapid growth in the first quarter of the year. Tourism to the Cook Islands and Samoa each grew by 7.3%. There were slightly lower increases for the Fiji Islands and Tonga. Vanuatu posted a small contraction in the number of visitors from New Zealand over the year.

- Tourism Research Australia projects increases in total outbound travel of 7.7% in 2011 and 4.7% in 2012. Growth in Australian tourism to the Fiji Islands is expected to continue at 9.0% in 2011 and 3.6%, in 2012. Latest forecasts from the New Zealand Ministry of Tourism project annual growth in departures to main Pacific destinations (i.e., the Cook Islands, the Fiji Islands, and Samoa) to average about 3.0% in both 2011 and 2012.
Recent developments

- After 2 years of contraction, the Cook Islands economy grew by 0.5% in FY2010 (year ended 30 June). This reflected increases in tourist arrivals, infrastructure construction expenditure, and food exports. Tourism picked up slightly (an increase of 2.7% in visitor arrivals and an estimated 2.6% increase in visitor expenditure in FY2010), and fisheries exports, which make up half of merchandise exports, increased by 15.9%. These increases offset a 10.1% decline in pearl export receipts (which account for a quarter of merchandise exports) due to delays in harvests.

- The trade balance widened by 41.3% in the first quarter of FY2011, compared with the same quarter in FY2010. It is expected to widen further in FY2011 as imports rise, driven mainly by donor-financed infrastructure projects such as the Avatiu Port upgrade.

- Private sector activity continues to be subdued. Commercial bank lending to businesses declined by 2.9% in FY2010. Net value-added tax (VAT) revenue, another gauge of economic activity, fell sharply, particularly in the second half of the fiscal year. Net VAT revenue was still down by about 20.0% (y-o-y) during the first quarter of FY2011.

- Visitor arrivals have continued to show a small improvement over the first half of FY2011. In November 2010, total visitor arrivals were up by about 1.9% (y-o-y). Growth was driven by the New Zealand and Australian markets, the latter helped by the introduction of a direct flight from Sydney to Rarotonga in the second half of the year. Tourist numbers from the European and US markets, however, continue to trend down.

Outlook

- Growth is projected to rise to about 2.0% in FY2011 on the back of increased donor-financed infrastructure investments. Expectations of slow tourism demand from the northern hemisphere and the effect on tourism of the recent earthquake in New Zealand pose risks to the growth outlook.

- Inflation is expected to rise to 4.0% in FY2011 due to rising commodity prices and the inflationary impacts of increased construction activity.

Key issues

- The Cook Islands’ net debt position is 19.3% of GDP (up on the 2.0% of FY2008, but below the maximum threshold of 35.0%). Accelerating public investment in productive infrastructure, in order to both lift demand and remove constraints that are holding back the private sector, would be important to returning growth to the high levels of a decade ago.

- Contingent liabilities stand at NZ$21.2 million (or around 6.0% of GDP). The government’s guarantee of any losses (up to NZ$5.0 million per annum) incurred on Air New Zealand’s flights from Rarotonga to Sydney and Los Angeles over the next 3 years will need to be closely monitored to manage the associated fiscal risk.
Fiji Islands

Recent developments

- Weak GDP growth of 0.1% in 2010 continues the poor performance of the past 4 years during which growth averaged -0.5%. The slightly positive outcome in 2010 was driven by growth in tourism, mineral water production, and some minor industries (fisheries and gold). This outweighed downturns in agriculture; transport, storage, and communication; health and social work (on the back of reduced government expenditure); real estate and business services; and other community, social, and personal services.

- This continued weak economic performance indicates a need for structural reforms that would encourage greater private sector development and investment.

- Tourism sector performance was the highlight of 2010. Visitor arrivals in 2010 reached an all-time high of 632,868, a 16.5% increase compared with the previous year.

- Departures from Australia to the Fiji Islands posted growth of almost 30% in 2010 (albeit on the back of a poor year in 2009), which was supplemented by a more modest 5% increase in departures from New Zealand and increases in other markets. The strong Australian economy and marketing in India and the People’s Republic of China were key factors in tourism growth.

- Despite the competitive benefit of the 20% devaluation of the Fijian dollar in April 2009, heavy discounting continues in the tourism sector. Growth in gross tourism earnings are only keeping pace with tourist arrivals. Over the first three quarters of 2010, tourism earnings were 22.1% higher than in the same period in the previous year, reflecting growth in arrivals. Growth in tourism earnings was particularly high in the first half of 2010 before slowing in the third quarter.

- The revival of the Fiji Islands’ gold industry continued. Gold recovery at the single gold mine—Vatukoula—in the 12 months to August 2010 was over 59,000 grams, and in early 2011 is projected to return to the historic level of 100,000 grams annually. Earnings from gold exports have benefited from rising gold prices.

- The agriculture sector, negatively affected during 2010 by Cyclone Tomas and then drought, experienced an estimated downturn of 11.9%. Continued poor performance in the sugar industry, which is struggling to reduce production costs to a point where the industry is internationally competitive, also contributed to the decline. The government’s sugar industry reform plans announced in 2010 are moving ahead slowly, but were unable to turn around performance in 2010. Cane production fell an estimated 19.2% from 2009 levels as farmers continued to leave the industry. Sugar production continued its decline (down an estimated 20.8% on 2009). Mills still encounter breakdowns despite the 2006 mill upgrade program. This affected the level of sugar extraction and amount of standover cane.
Indicators point to continued low investment levels. Imports of investment goods declined by 0.5% on an annual basis and new lending for investment purposes declined 1.1%. The Reserve Bank of Fiji acted to absorb excess liquidity by twice raising the statutory reserve deposit requirement for commercial banks during 2010, to a level of 10%.

The growth of broad money and domestic credit slowed in the second half of 2010. A continuation of this trend would forewarn weaker prospects for private sector activity in the coming year.

The average inflation in 2010 was 7.8%, up from 3.7% in 2009. The acceleration in inflation was due to rising global food and fuel prices passed through to domestic prices, removal of some price controls on food, and higher electricity tariffs.

Outlook

The short-term outlook remains heavily dependent on developments in the tourism sector and the sugar industry. Visitor arrivals tend to be influenced by marketing efforts—the increased focus of many Pacific islands on attracting tourists poses a risk of loss of market share. Government funding to the Fiji Visitors Bureau has alleviated some of this risk and this support is expected to continue. Sugar industry reform is assumed to continue slowly, given government capacity constraints and the time needed to consult many stakeholders, an essential measure if the reforms are to be successful.

ADB’s 2011 GDP growth projection of 0.5% is below the government’s growth expectation of 1.3%. External economic conditions play a role in the lower 2011 projection—the Fiji Islands’ small open economy is expected to be generally affected by slow world growth in 2011, and lead to only modest growth in tourist arrivals. Tourism revenue is expected to continue to track visitor numbers. Years of deep discounting appear to be have become a permanent shift in the Fiji Islands’ market position that will be difficult to reverse.

Key issues

Rising poverty, which is estimated to have reached 35%-40% of the population, is a primary concern. The government has provided for some targeted social welfare actions (food vouchers, low cost housing), as well as expanding the use of blunt policy tools such as price controls. The sustainable remedy to poverty, job creation, is proving elusive.

Reducing debt levels (currently nearly 58% of GDP) is a challenge confronting the government. This requires tight central control over consideration of new debt and active debt portfolio management. Government access to concessional lending is restricted, adding to the cost of debt to future generations. There is no question that the Fiji Islands needs much investment in infrastructure. Redeployment of the government’s nonperforming assets and greater private sector involvement in investment is crucial if debt is to be held to a sustainable level.

Lead author: Emma Veve.
Kiribati

The Kiribati economy expanded by an estimated 0.5% in 2010, down from an earlier projection of 0.8%. The downgrade is based on the continuing weakness in seafarer remittances, as well as the decline in copra exports (due to unfavorable weather conditions in 2010). Inflation is estimated at 5.4% in 2010.

- GDP growth is likely to be higher in 2011 and 2012 as large, donor-funded infrastructure development programs commence. These include the upgrading of international airports in Tarawa and Kiritimati, upgrading of the South Tarawa Road, and the extension of Betio Port.

- The pace of state-owned enterprise (SOE) reforms, focused on the privatization of financially distressed SOEs, is picking up. Such reforms would create space for private sector development, reduce SOEs’ drain on the budget, and improve the government’s future financial position.

Nauru

In FY2010 (year ended 30 June), GDP growth was likely flat, largely because weak phosphate demand and damage to port equipment restricted export activity. Aid from the Russian Federation, amounting to about A$10 million, has been secured to repair mooring facilities. Repairs, coupled with the recovery in world demand for phosphate, is expected to provide for GDP growth of 4.0% in FY2011.

- Nauru is now estimating a consumer price index (CPI). The annualized CPI was -0.5% in June 2010. The deflation was due to declines in prices of food, electricity, and telecommunication. The entry of Digicel’s mobile telephone and internet service helped reduce communication costs. The outlook for higher food and fuel prices is expected to accelerate inflation to 2.5% in FY2011.

- Nauru’s debt problems continue. External debt was estimated as A$261 million for 2010. Internal debt of about A$368 million is owed to the government by state-owned enterprises. There is a further A$265 million of internal debt, owed mainly to depositors in the insolvent Bank of Nauru.

- The FY2011 budget adopts an overall balanced stance, continuing the prudent fiscal management that has been maintained since 2004. Expenditure continues to be focused on core areas of basic and essential public services, consistent with the goals of Nauru’s sustainable development strategy.
Federated States of Micronesia

GDP is estimated to have increased by 0.5% in FY2010 (year ended 30 September) driven by public infrastructure projects including the expansion of the Pohnpei airport. Consumption spending was subdued, with the value of food imports from the US falling by 6.7% during FY2010. In FY2011, GDP growth is projected to be slightly higher at 1.0% based on a pipeline of infrastructure projects and the release of delayed infrastructure funds. The completion of the Pohnpei airport this year could potentially expand opportunities for tourism and exports. Continued sluggish development in the private sector, however, remains an impediment to growth.

On the fiscal front, much has improved since FY2009. However, in the longer run, a comprehensive approach combining expenditure cuts, increased revenue, and structural reforms is needed to address fiscal sustainability.

Marshall Islands

After 2 years of contraction, GDP grew by an estimated 0.5% in FY2010 (year ended 30 September), aided by grant-financed increases in government spending and further expansion in fish processing. GDP is expected to grow by 1.0% in FY2011, supported by increased foreign grants. The fisheries sector, a key source of income, could also benefit from a planned regional collaboration on fish-stock management. However, growth could be undermined by the rise in global commodity prices as the country is highly dependent on imports, and possible further downsizing of the US military base in Kwajelein.

The fiscal balance has improved. The government has undertaken important fiscal reforms in anticipation of the expiry of the US Compact of Free Association grants in 2023. These include developing a comprehensive tax reform plan and expenditure-side reforms. Broad-based expenditure reduction was imposed by the government in the FY2011 budget. However, more specific expenditure cuts remain necessary to achieve fiscal sustainability.

Palau

Tourist arrivals grew 11.7% in FY2010 (year ended 30 September), after a cumulative 16.5% decline over the previous 2 years. This turnaround compensated for public expenditure cuts and helped the economy grow by about 2.0% in FY2010. This marks the first year of GDP growth after 4 consecutive years of contraction. Growth in tourist arrivals is expected to continue this year and GDP growth is projected at 2.0% in FY2011.

Fiscal discipline and sustained efforts to address weaknesses in the budget process remain necessary. Although expenditure cuts were initially imposed on the FY2010 budget, these were partially reversed by supplementary budgets passed later in the year. Some progress, however, has been made in terms of correcting the recent trend of overoptimistic government revenue projections, which had led to drawdowns in cash reserves and an accumulation of debt.

Lead authors: Elbe Aguba and Rommel Rabanal.
Samoa

Recent developments

- Samoa posted zero growth in FY2010 (year ended 30 June). Over the September 2010 quarter, the economy started to pick up, expanding by 2.0% (y-o-y). Growth was driven by the manufacturing (8.6%) and construction (4.5%) sectors. Commerce (2.6%) and transport and communications (3.6%) also grew, while agriculture and fisheries contracted by 8.3% over the period.

- Tourist arrivals and receipts in December 2010 were 3.7% and 8.7% respectively above the December 2009 level. This highlights the post-tsunami recovery.

- Growth in remittances improved after several months of double-digit declines in the first half of 2010. In December 2010, remittances fell slightly by 3.2% (y-o-y), compared with a 7.7% decline the previous month. This is, in part, due to the cash and in-kind transfers received from overseas families during the holiday season. Sustained recovery in remittances and tourism is crucial for economic recovery.

- Over the first half of FY2011, inflation averaged 2.5%, up on the 0.4% inflation for the same period in FY2010.

- The FY2010 budget outturn recorded a deficit of 7.8% of GDP. Better-than-expected revenues and lower current expenditures brought the deficit in below the original projection of 11.1%. Latest government estimates show that external debt had reached 51.8% of GDP by the end of FY2010.

Outlook

- The growth projection for FY2011 is for low growth of 2.1%. Private investment and government expenditure (focused on ongoing post-tsunami reconstruction) are expected to rise. Improvements are also expected in exports and consumption, the latter due to an increase in wages and salaries and pensions.

- Private remittances from Australia and New Zealand are expected to rise in FY2011, but the poor job outlook in the US will limit the overall increase in remittances.

- Inflation is projected to average 3.0% in FY2011.

Key issues

- Debt-financed public investment is raising external debt and creating a medium- to long-term policy challenge. External debt has already breached the government’s 40% of GDP target, and is expected to remain above 50% over the medium term.

- Structural reforms (e.g., to increase access to and economic use of customary land, and to improve the performance of state-owned enterprises) are needed for the potential benefits of additional public investment to be realized.
Recent developments

- Following a contraction in 2009 due to declining log volumes and the effects of the global economic crisis, GDP returned to positive growth of around 4.0% in 2010. Growth was led by recovery in the forestry sector. After declining by 31.4% (y-o-y) in 2009, log production increased by 36.7% in 2010 as exports to Asia rose. Production of palm oil, cocoa, and copra also increased, as did the fish catch.

- Recent data showed that log production increased by 4.5% (y-o-y) in January 2011 compared with the same month a year ago but was 57.5% lower than the December 2010 level. Palm oil production also improved in January 2011, following declines in the previous months but was 16% lower than the level of the previous year.

- Building activity indicators suggest renewed expansion in the construction sector. Demand for cement imports is high. Building permits issued have also increased compared with the previous years.

- Inflation is estimated to have averaged around 3% in 2010. Inflation was subdued at less than 2% during the first half of 2010, owing to low increases in food prices. Price increases were low for rice in particular, which constitutes around 47% of the food price index basket and about 18% of the total consumer price index basket. Inflation is estimated to have risen in the latter part of 2010 as world fuel and food prices increased.

- Rising export receipts and large inflows of donor funds lifted gross international reserves to a record high of SI$2,070 million (approximately $256.8 million) at the end of 2010. The increase in foreign exchange was aided by strong donor inflows and the release of about half of the approved $18.3 million standby credit facility arrangement by the IMF.

- A decline in production of key export commodities in January 2011, however, resulted in the doubling of the trade deficit (month-on-month) and a fall in international reserves, equivalent to 8.7 months of imports (from 9.5 months of imports in December 2010).

- The fiscal situation remained tight for much of 2010, necessitating restrictions on fourth quarter expenditure and a recruitment freeze. Nonetheless, the government posted a fiscal surplus of SI$193.5 million over 2010 (about 3.4% of GDP) against an estimated deficit of SI$253.1 million. The timely provision of budget support, together with better-than-expected revenue performance, shored up the fiscal balance. Revenue collection was SI$1,865.3 million (about 32.7% of GDP), about SI$121.3 million higher than the budget estimate. Expenditure was about SI$325.3 million (5.7% of GDP) below the adjusted estimate.
Solomon Islands

The debt-to-GDP ratio declined to 24% in 2010 from 28% a year earlier with external debt accounting for about 73% of total official debt. The external debt is denominated largely in Special Drawing Rights (35% of external debt) and in US dollars (32% of external debt).

Outlook

An acceleration in growth is projected in 2011, with GDP expected to expand by 7.5%. The Gold Ridge mine in Guadalcanal is due to recommence gold production in the first half of 2011. Despite high levels of mine-related investment, the effect on real GDP growth has so far been low because of the high import requirement of materials and equipment. However, the forecasted resumption of gold exports in 2011 will provide a substantial boost to GDP growth.

The logging industry is expected to decline over the medium term due to a decline in logging stocks. This will have a negative impact on economic growth and the trade balance. However, greater demand for other commodity exports, such as palm oil and copra, and an acceleration in foreign investment in telecommunications and mining (including a new copper mine) is expected to drive solid GDP growth of 4% in 2012.

The current account deficit, which in 2009 was equivalent to 20% of GDP, is estimated to have increased to between 20%-24% of GDP in 2010. The widening deficit is due to increased imports from the mining and telecommunications sectors. The current account deficit is expected to narrow to around 15% of GDP in 2011 as exports rise, notably due to the commencement of gold exports from the Gold Ridge mine and growth in agricultural exports.

Key issues

The newly elected government was unable to draft a full budget before the end of 2010. Instead, it passed a supplementary appropriation bill that enabled spending to continue in the first 3 months of 2011 at a level not higher than that of the same period in 2010. A complete 2011 budget was required to be passed by the end of March, but this has been delayed due to ongoing political instability. No legislation has been passed since the previous government went into caretaker mode in May 2010.

To prevent further uncertainty, it is important that Parliament reconvene and pass a new budget. A continued commitment to developing and implementing programs and policies that will place the economy on a sustainable growth path is a high priority.
Recent developments

- The Tongan economy contracted by 1.2% in FY2010 because of consolidation in the domestic banking sector (which constrained private sector credit growth), delays in infrastructure works, and weak remittance and tourism receipts.

- Inflation eased to 2.0% in FY2010 from 5.0% the previous year. This was due to price declines in both local and imported building materials, which offset the rebound in global fuel prices. Inflation accelerated to 4.4% over the first half of FY2011 because of higher food and fuel prices and the imposition of government excise taxes on imported tobacco and alcohol.

- Remittances in the December quarter barely grew compared with the same period in 2009. Although annual remittances were up by 1.1% in 2010, they remained 16.7% lower than 2008 levels.

- Growth in tourism receipts turned positive in mid-2010 after almost a year of decline. Tourist receipts were particularly strong in December quarter of 2010, when receipts grew by 33.7% (y-o-y).

- Foreign reserves continue to increase and remain well above target levels, reflecting continuing weak domestic demand, tight credit conditions, and slow economic activity. At the end of December 2010, official foreign reserves amounted to $95.7 million, equivalent to 7.5 months of imports.

- Private sector credit contracted by 9.6% (y-o-y) in December 2010, the 20th consecutive month of decline. Lending to the business sector declined even more sharply at 14.4%, while credit to households contracted by 3.9%.

- Total public debt stands at $156.4 million as of September 2010, equivalent to 37% of GDP. External debt is about 32% of GDP, while domestic public borrowing accounts for the remaining 5%.

Outlook

- The outlook for 2011 remains weak, with high unemployment in major remittance source economies such as the US. However, some growth is expected in 2011, supported by donor-funded infrastructure activities. Growth is projected at 0.5% in 2011, and 1.8% in 2012.

- Inflation is expected to accelerate to 3% in 2011 as the rise in global food and fuel prices, as well as the pickup in economic activity, passes through to domestic prices.

Key issues

- Tonga is at a high risk of debt distress, and cannot afford to take on more borrowing. It is critical that fiscal adjustment is driven by expenditure restraint, particularly on personnel expenditure, as nonwage and salaries spending is already significantly over budget. Budget support may be needed over the medium term to help create the fiscal space needed for reform.
Tuvalu

- Tuvalu’s economy continued to feel the impact of the global economic crisis in 2010. Even with higher government spending, GDP was estimated to be flat in 2010. This follows a contraction of about 2.0% in 2009 after 3 consecutive years of strong growth.

- The fiscal deficit is estimated to have widened dramatically, from 4.0% of GDP in 2009 to almost 30.0% in 2010. The budget blowout is a result of weak domestic revenues (partly due to the appreciation of the Australian dollar against the US dollar, in which most of Tuvalu’s external revenue is denominated) and increased expenditure—particularly on the medical and scholarship schemes. Gross public debt is about 44% of GDP, although net debt remains negative.

- Seafarer employment—a significant income source for households—is weak, and is likely to remain so due to weak global demand. Zero economic growth is projected in 2011 as the government will need to cut spending. However, for 2012, the economy is expected to grow by 0.5% as donor-financed public works projects employing locals get underway.

- The exceptionally high 2010 budget deficit (A$11 million or 30% of GDP) resulted in a large A$9.0 million drawdown from the Consolidated Investment Fund (CIF), the primary source of deficit financing. With less than A$7.0 million remaining in the CIF, financing future budgets will be very difficult and major fiscal adjustments will have to be made.

Vanuatu

- In a record eighth consecutive year of growth, the economy expanded by an estimated 3.0% in 2010, driven mainly by agriculture and construction spending. However, tourism and retailing were soft. The net effect was that the pace of growth eased below the average of 5.7% in the previous 7 years.

- Despite delays in some projects funded by the US Millennium Challenge Corporation, construction remained firm in 2010 with the refurbishment of tourism facilities. Agricultural production rebounded from its poor performance in 2009, buoyed by higher prices for copra, coconut oil, and beef.

- Tourist arrivals in the first 9 months of 2010 were 4.3% below the same period in 2009. The decline was largely due to the Fiji Islands’ recovery of some of the tourism market share lost to Vanuatu in 2009.

- Growth in credit to the private sector remained subdued, averaging 12.3% on a year-on-year basis for the first 3 quarters of 2010. This was below the historical average.
Vanuatu

Imports grew by 17.1% on a year-on-year basis in the September quarter of 2010, after declining by 0.9% in the previous quarter.

Inflation remained low in the first 3 quarters of 2010 but has likely accelerated in the fourth quarter owing to higher food and fuel prices. Inflation is expected to average 3.4% for the year, still comfortably within the central bank’s target of 4.0%.

During the second and third quarters of 2010, the central bank began to withdraw the stimulus measures that it had implemented to shepherd the country through the global economic crisis. It increased the statutory reserve requirement from 5% to 6% effective 1 August in response to high levels of liquidity in the banking system. This requirement, however, remains below the range of 8%-10% that was in effect between 1999 and 2008, indicating a still-expansionary policy setting. In its September quarter monetary policy review, the central bank indicated that as global economic conditions continue to improve, it will tighten monetary policy further to guard against inflation.

Outlook

Growth is forecast at 4.2% for 2011. The driver is an expected recovery in tourist arrivals from Australia, boosted by the firm economy, a strong Australian dollar, and an increased number of flights. Agricultural production is expected to pick up in response to higher commodity prices.

Higher food and fuel prices are expected to cause inflation to rise to 5.0% in 2011. The current account deficit is expected to widen in 2011 as the pickup in domestic demand increases imports.

Government accounts are expected to have been close to balancing in 2010, according to the annual budget presented to Parliament in December 2009. A small deficit of $2.9 million was recorded in the first 3 quarters of 2010. Fiscal policy will remain broadly neutral in 2011-2012, as the government is required by the 1998 Public Finance and Economic Management Act to target budget surpluses.

Key issues

The sustainability of Vanuatu’s economic growth depends on private sector investment. Policies for private sector development have improved in recent years, but difficulties remain. Constraints stem from inadequate physical infrastructure, poor governance, outdated legal and regulatory environments for private sector investment, corruption, and government involvement in inefficient enterprises that crowd out the private sector. Difficulties with land tenure create problems for foreign investors as well as local businesses.

Lead author: Milovan Lucich.
Papua New Guinea

Recent developments

- Economic growth picked up to around 7.0% in 2010 compared with 5.5% in 2009, supported by strong commodity prices and new project investments. According to estimates from the PNG Department of Treasury, activity expanded by 5.4% in the mineral sector and 8.2%, in the nonmineral sectors.

- Construction began on a $15 billion ExxonMobil-led liquefied natural gas (PNG LNG) project in mid-2010. However, there have been project delays due to land access and compensation issues. Also, the $1.4 billion Ramu nickel–cobalt mine has yet to commence production. Investors are currently facing legal actions by landowner groups on environmental concerns over mining operations. These events dampened the anticipated growth impact of these projects in 2010.

- Private investment was strong as businesses continued gearing up to take advantage of the enormous spillover opportunities that are anticipated from the LNG project. Private consumption improved as the recovery in agricultural commodity prices benefitted the majority of the population who are engaged in rural farming.

- In 2010, government expenditure fell by 4.1% in real terms due to lower trust fund drawdowns. However, trust fund drawdowns may still have exceeded the 4% GDP limit stipulated in the medium-term development strategy.

- At $3.5 billion or 14% of GDP, the 2011 national budget was the largest in the country’s history. The government expects to generate sufficient revenues to ensure a balanced budget, excluding trust fund drawdowns. (See the December 2010 Pacific Economic Monitor for the budget analysis).

- Annual inflation in 2010 was 7.2% (5.6% if excluding the volatile betelnut prices). This was unexpectedly low given capacity constraints in the construction and transportation sectors, surging rental property prices, shortages of skilled labor, implementation of the minimum wage increase, and considerable trust fund withdrawals.

- Low official inflation is partly explained by technical flaws in the consumer price index, which excludes rental pricing. It is also possible that significant trust fund withdrawals have yet to be fully expended. The diversification of imports sourced from emerging Asian markets in recent years also may have contributed to lower inflation, especially in the wholesale and retail sectors.

- The current account deficit widened to about 30% of GDP. There was a strong pickup in imports, mainly financed by foreign direct investment, arising from the construction phase of the LNG project. Gross foreign exchange reserves at the end of October 2010 totaled $2.7 billion, equivalent to about 16 months of nonmineral imports of goods and services.
Outlook

- In the near term, the construction phase of the PNG LNG project, favorable commodity prices, and strong investor confidence will boost economic growth. GDP growth is projected to be 8.5% in 2011 and 6.5% in 2012.

- Despite the size of the LNG project, the government estimates that only 4.5% of project investment flows will be retained in the local economy, mostly between 2011 and 2013, as most project costs will be for imported goods and services.

- Supply-side constraints in some sectors, such as the property market in Port Moresby and Lae, skilled labor, construction, and transportation, are creating inflationary pressures. Inflation driven by domestic demand is therefore expected to persist. Rising international food prices and the 2010 depreciation of the kina, in particular against the Australian dollar, will further fuel inflation. ADB expects underlying inflation to increase to 8.0% in 2011 and 7.5% in 2012.

- A funding agreement for an LNG project led by InterOil, valued at $4 billion, was signed in early 2011. Project developers have announced that construction could begin as early as the fourth quarter of 2011. If this project were to start earlier than planned, then near-term growth and inflation would be significantly higher.

- Other upside risks include higher commodity prices, increased mining activities, and additional trust fund expenditures combined with the potential lagged impact of 2009 trust fund withdrawals ahead of the 2012 elections.

- The main downside risk is further delays in large resource projects due to landowner compensation disputes and land access issues.

- The medium-term economic outlook is clouded by uncertainty over mining production. Several major mines are anticipated to close including Kainantu (2012), Ok Tedi (2013), and Porgera (2015). This would significantly reduce crude oil, gold, and copper exports, and slow growth. There are, however, possibilities that the mine production at Ok Tedi and Porgera will be extended. If this eventuated and the second LNG project commenced early, then growth and inflation would be much higher than current treasury estimates.

- The increase in imports related to resource projects will widen the current account deficit over the next few years. However, these projects will be financed mainly through foreign direct investment flows, so there is little implication for external stability.
Papua New Guinea

Exports (Index: Dec 2003=100, quarterly)

Key issues

- The budget macroeconomic framework is appropriately cautious in its forecast of future mineral export revenues. The government needs to carefully consider the risk of accumulating public liabilities until public revenues from resource revenues are realized.

- Through a consultative process, a Secretaries Committee and an interdepartmental working group, chaired by a representative from the Department of Treasury, have been created to oversee the establishment of a sovereign wealth fund. The government intends to manage all resource revenues through offshore funds, with all expenditures channeled through the budget process. While this is a promising strategy, the challenge is to ensure that drawdown arrangements from each fund are coordinated and expended within the absorptive capacity of the public and private sectors.

- The government decided to move all new trust accounts to the Bank of PNG. Monetary policy effectiveness will be enhanced as the central bank now has better control over banking sector liquidity. Previously, it was constrained by the high cost of using central bank papers to absorb excess liquidity. Existing trust funds at commercial banks should also be moved to the central bank. Eventually all trust funds should be consolidated with the proposed offshore sovereign wealth fund.

- There are currently severe supply-side constraints in the construction and transportation sectors as significant development budget expenditures compete with the PNG LNG project and other private sector activities for scarce resources. Delaying nonpriority projects until after the construction boom will raise the efficacy of public expenditures and reduce inflation pressures.

- Windfall revenues are likely to eventuate if commodity prices remain high. In 2010, much of the windfall revenues were directed toward discretionary capital spending in supplementary budgets. Instead, such revenues should be spent on the rehabilitation and maintenance needs of existing public infrastructure.

- Real interest rates on government securities and deposits are negative. Given the near-term upside risks on inflation, the Bank of PNG will need to consider tightening monetary policy.

- During 2010, net foreign assets contributed significantly to money growth. This could potentially fuel inflation if the trend continues into 2011. The Bank of PNG must balance the need to accumulate additional foreign exchange reserve against the cost of sterilizing the liquidity this accumulation creates.
Recent developments

- Economic momentum has been generated by a rapid buildup in government spending. This has resulted in average double digit growth since 2006 in the preferred measure of GDP—nonpetroleum, non-United Nations GDP. There was some easing in economic growth in 2010. Nonetheless, the growth in the preferred measure of GDP remained at an internationally high rate of 9.5%.

- Government expenditure rose from approximately $100 million in 2006 to $604 million in 2009, and was budgeted at $838 million for 2010. While the budget will probably not be fully spent, expenditure was on track to exceed the previous year’s level. As of early November 2010, own-funded cash expenditure was $437 million, compared with around $300 million over the same period of 2009, and expenditure inclusive of obligations had reached $635 million.

- Much of the additional government expenditure has been on items that have fed quickly into the local economy. Wages and salaries have continued to rise, and a wide-ranging social safety net is providing cash transfers to rural areas. There was a further large expansion in 2010 in small, rural infrastructure projects implemented by local contractors, as well as the larger public projects in the capital, Dili. Private investment has also risen as local and overseas contractors take advantage of the booming economy.

- The high level of aggregate demand is reflected in improvements in a range of demand indicators (e.g., new vehicle registrations, tax revenue, electricity usage, and mobile phone connections), albeit with some sign of an easing over 2010 in the rate of growth.

- The construction sector has expanded with rising investment, and high aggregate demand has fueled growth rates in the wholesale and retail industries. The recent recovery in the agriculture sector, which contributes around 30% of the preferred measure of GDP, slowed during 2010 because of adverse weather and continuing transport problems. The sector had grown by an estimated 13.4% in 2008 and 12.6% in 2009, boosted by the government-led distribution of better seeds and tractors and reestablishment of extension services.

- The Ministry of Agriculture estimates that production of rice, the staple most favored by households, declined by 6.4% in 2010. Maize production, however, rose by an estimated 10.5%, while coffee exports rose from the unusually low 10,000 tons reported in 2009 to 25,600 tons for 2010.

- Coffee continues to account for almost all merchandise exports. The large trade deficit, of the order of 65% of the preferred measure of GDP, is outweighed by the surplus on the income account attributable to petroleum revenue. Petroleum revenue reached an estimated $2.1 billion in
**Timor-Leste**

2010, and provided for a current account surplus more than twice the preferred measure of GDP.

- Broad money expanded by 9.7% in 2010, well down on the 39.6% increase of the previous year. Cautious lending practices (a response to the backlog of non-performing loans) and the ongoing problems of securing land as collateral continued to restrain bank lending, and commercial bank credit to the private sector was basically unchanged over the year.

- Inflation rose quickly in 2010 and above regional comparators, at 9.2% on a year-on-year basis in December and 6.8% on an annual average basis. Most of the inflation is attributable to a rise in food prices, which has been driven by international developments. Inflation is lower among items with prices that follow domestic rather than international conditions, suggesting inflation can be characterized as cost "push" rather than demand "pull."

### Outlook

- The short- and medium-term economic outlook rests on developments in government expenditure. Own-funded government expenditure has been budgeted to increase by about 50% to $1.265 million in 2011, and the government has foreshadowed the budget for own-funded expenditure rising to about $1.450 million by 2015. Total infrastructure investment between 2011 and 2015 is projected to exceed $3 billion. The surge in government expenditure will continue to support aggregate demand and expansion in the construction and other service industries. Economic growth is likely to remain at internationally high levels of around 10% per annum.

- The United Nations mission to Timor-Leste is phasing out, with the phase-out expected to gather pace following the national elections due in the first half of 2012. The United Nations contribution to the economy (about $65 million) is estimated as the equivalent of around 10% of the preferred measure of GDP. While the phase-out and then departure will not have a direct effect on the preferred measure of GDP (as it excludes the United Nations contribution), it will have an indirect, dampening effect over the medium term.

- This dampening effect will, however, be mainly felt in 2013 and until then will be more than offset by the demand stimulus provided by the expansion in government expenditure.

- Inflation is projected to stay high in 2011 at 7.5% on an annual average basis, before easing in 2012 as the growth in world commodity prices slows. While the rise in oil prices is positive overall for the petroleum-dependent economy, the higher inflation it has caused needs to be carefully managed. It will be important to avoid repeat adjustments to public sector wages for the higher cost of living, which can turn into a wage-price spiral. This has the potential to turn what is now largely a problem of imported inflation into a deeper risk to macroeconomic stability.
Key issues

- Offshore petroleum revenue has allowed Timor-Leste to initiate a new development phase. Development is being fast tracked through the conversion of petroleum wealth into human and physical capital. Rising government expenditure funded from petroleum revenue is allowing a rapid expansion in public services and has provided a public social safety net for many of the vulnerable members of the community. After ranking 150 out of 159 countries in the 2005 Human Development Index, Timor-Leste reached 120 out of 162 countries in the 2010 index. The incidence of poverty is estimated by the World Bank to have declined from 50% in 2007 to 41% by 2009.

- The windfall offered by the rise in world oil prices over the past decade is central to Timor-Leste’s success. High world oil prices are providing the financial resources to sustain a surge in public investment and recurrent expenditure. In 2004, the International Monetary Fund estimated that Timor-Leste would earn a total of $3.3 billion from the offshore petroleum developments now producing revenue (at an oil prices of $20 per barrel, in 2002-03 prices). Timor-Leste is now earning this in less than 2 years. Total revenue from existing developments is estimated by the 2011 budget as $22.5 billion (in net present value terms).

- By the end of 2010, the Petroleum Fund held $6.9 billion in offshore investments. Even with the large withdrawals now planned, the value of the fund is projected to exceed $14 billion by 2015.

- The quality of the investments funded by these withdrawals is a key issue for the economy, as it will determine the sustainability of the recent surge in economic growth. It will be important that investments funded from withdrawals earn a good rate of return. A good “rule of thumb” is to target a return higher than the cost of withdrawals, being the financial return that would have been earned had savings remained in the Petroleum Fund.

- Even with these recent achievements, the development challenges remain daunting. The rising offshore income lifted Timor-Leste to lower middle-income country status in 2007, but the non-income indicators of development generally remain those of a low-income country. Of the 21 measurable Millennium Development Goal indicators, about half are off track, notably in relation to poverty and nutrition. The coverage of infrastructure—electricity, water, and especially telecommunications—has expanded during the last 10 years, but coverage and service quality remain below potential. The road network is in decline due to inadequate rehabilitation and maintenance (the most recent survey found that 92% of the core road network was in a poor or very poor condition) and the only seaport is approaching full capacity.

- Public investment thus needs to remain strong over the next decade and be focused on high-value uses (see the article on long-term growth projections for Timor-Leste on page 26).
Techniques in inflation forecasting

The ADB Pacific Department carries out two rounds of macroeconomic forecasting each calendar year, in February and August. This article describes one of the methodologies used as the basis for its inflation outlook for the Pacific region.

Drivers of inflation in the Pacific

All the Pacific countries have small, open economies with a high propensity to import. They are, therefore, particularly vulnerable to imported price shocks. These would include exchange rate depreciations, inflation in import source countries, and higher commodity prices, particularly of fuel and food.

A depreciation of the local currency can be expected to pass through to raise prices of both intermediate goods and final goods. This inflation may then trigger further price changes through "second round" effects such as wage adjustments linked to the consumer price index. Given the structure of Pacific economies, it is reasonable to expect the degree of exchange rate pass-through to be relatively high. The magnitude and speed of pass-through will, however, depend on a multitude of factors. In particular, the extent to which retailers and producers can pass on higher import costs to consumer prices will depend on domestic market structures and the ability of consumers to switch to domestically produced goods. It may also depend on whether firms believe the import price increases are temporary or permanent.

The small size of Pacific economies is likely to mean that there is limited competition across many industries, including wholesale and retail. It is also likely that there is limited scope to domestically produce substitutes even if import prices increase rapidly. However, there may be some exceptions, particularly the larger economies such as the Fiji Islands and PNG. Also, countries with large rural populations, such as PNG and Solomon Islands, may be able to respond to higher import prices by substituting domestically produced food items.

Inflation measurement issues

Where possible, underlying inflation rates are inferred from the published official inflation data. All Pacific economies have a relatively high weighting for food items in the consumer price index. The prices of some domestically produced goods are very volatile as they are subject to strong supply-side shocks. For example, in PNG, the inflation rate of betel nuts, which has a 3% weight in the consumer price index, has recently varied from 67% to 240%. In such cases, an underlying inflation rate is calculated by variance weighting the subgroups of the consumer price index based on historical price volatility.

If consumer price index data is insufficiently disaggregated or adjusted for volatile price items, then dummy variables are included in the country-specific models to capture seasonal effects, temporary economic shocks (e.g., natural disasters), and one-off policy changes (e.g., introduction of goods and services tax).

Inflation modeling

Variants of the following model are estimated for each economy:

$$ \Pi_d = f (\Pi_d, \pi_f, E, M, D, C, \gamma, \lambda), $$

where

- $\Pi_d$ = inflation (where applicable also estimated for underlying inflation);
- $\pi_f$ = foreign inflation;
- $E$ = percentage change in exchange rate, where applicable;
- $M$ = domestic credit growth;
- $D$ = measures of excess domestic demand;
- $C$ = international commodity prices (including oil and food staples);
- $\gamma$ = seasonal dummies, and
- $\lambda$ = special one-off dummies.

Where the Pacific economy has its own currency, a country-specific model is estimated that quantifies the dynamics of the exchange rate-inflation relationship. Exchange rate movements are measured against an import trade weighted index, or a nominal exchange rate index, where available.

For all countries, the model also empirically tests the extent to which source country inflation and commodity prices feed through to consumer prices. Foreign inflation is that of the major import source country.
Techniques in inflation forecasting

Domestic inflation is postulated to be a function of lagged domestic inflation, a proxy for inflation expectations.

Excess demand is constructed using annual gross domestic product data by estimating a quarterly output gap. Alternative out-of-country variables, such as motor vehicle imports, are also used as proxies.

Special one-off dummies were used for structural breaks (e.g., changes in exchange rate regimes), demand and supply-side shocks triggered by natural disasters, tax policy changes that impact consumer prices, and changes to price regulation policies.

Estimation results

The estimated results of inflation of selected Pacific countries with national currencies are shown in the table on the next page.

Past inflation outcomes are very significant across all countries. Exchange rate movements have significant effects for the Fiji Islands, PNG, Tonga, and Vanuatu, but were insignificant for Samoa and Solomon Islands. The magnitude and timing of the pass-through varies across countries. Timing of the pass-through typically varies from zero (i.e., no lag) to three quarters. Foreign inflation is also significant but excess demand and domestic credit variables are generally insignificant.

Regression results are generally robust to different sample periods, including before and after significant structural breaks (e.g., floating of the exchange rate in Papua New Guinea in 1994).

ADB forecasting methodology

The Asian Development Outlook, one of ADB’s flagship publications, contains inflation forecasts for the next 2 years. The year-ahead forecast is guided by the country-specific model developed according to the framework outlined above. The nominal exchange rate is assumed to remain constant, foreign inflation is taken from forecasts of source inflation countries, and commodity prices are based on forward pricing. Adjustments are made to account for known one-off factors such tax policy and price regulation policies committed in the budget. The forecast for the second year is calculated by assuming that domestic inflation will trend toward the weighted inflation of major trading partners over a 3-year period.

During every forecasting round, ADB updates the parameters for each country-specific model by re-estimating results after incorporating the latest data.

Future research

The current inflation modeling framework captures the first round pass-through of imported inflation. However, the second round pass-through is likely to be significant because the composition of the consumer price index in Pacific countries includes a large weight for food, power, and fuel. This means that wage adjustments linked to the consumer price index are likely to be sensitive to price movements for these basic household items. As discussed in an earlier section, the second round pass-through will depend on the domestic market structure and the ability of consumers to switch to domestically produced goods.

A recent ADB study examined the degree of pass-through from terms-of-trade shocks to domestically produced food staple goods across urban centers in PNG (D. Mellor. 2009. Social impact of commodity price volatility in Papua New Guinea. In Bauer, Armin and Myo Thant [eds.]. Poverty and Sustainable Development in Asia. ADB. Manila). The study found evidence that in PNG the second round pass-through to domestic goods is lower in urban centers that have large populations with little access to land and that rely mainly on formal sector wage employment. This may be because high demand for staple foods spurs strong supply-side responses to import price shocks.

The size of the PNG market is, however, much larger than other Pacific economies. Also, a higher percentage of the population are subsistence farmers living in rural areas. The ability of other economies to cope with imported price shocks is, therefore, likely to be more limited, and the second round pass-through higher. This issue warrants exploration.

Lead authors: Dominic Mellor and Rommel Rabanal.
Techniques in inflation forecasting

**Estimation results of autoregressive exchange rate pass-through models**  
(statistically-significant regression coefficients at 10% level)

<table>
<thead>
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<th>Explanatory Variable</th>
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<th>SAM</th>
<th>SOL</th>
<th>TON</th>
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FIJ=Fiji Islands, PNG=Papua New Guinea, SAM=Samoa, SOL=Solomon Islands, TON=Tonga, VAN=Vanuatu

Note: For the Fiji Islands and Papua New Guinea, a nominal exchange rate index is used (i.e., a depreciation corresponds to a lower index value); For Tonga and Vanuatu, exchange rate is local currency per US dollar (i.e., an increase in the exchange rate corresponds to a depreciation). Figures in parenthesis indicate various lags (in quarters) of the explanatory variable.

**Inflation in selected Pacific economies: actual vs. predicted**  
(y-o-y, quarterly)

Source: ADB estimates based on data from the International Monetary Fund’s International Financial Statistics online database.
In 2010, tourism performance varied markedly across the Pacific Islands. This was primarily due to the recovery in the Fiji Islands, which regained its previous market share as the impacts of the January 2009 flooding dissipated. Other destinations, particularly Vanuatu, had recorded significantly high growth in visitor arrivals in 2009 as tourists sought substitutes for the Fiji Islands.

During 2010, there was a reversal of these trends, with the Fiji Islands posting growth in arrivals of almost 10% while Samoa, Tonga, and Vanuatu recorded contractions as tourist numbers headed back towards previous levels.

The outlook for tourism in the region will largely depend on the prospects for outbound travel from Australia and New Zealand.

The latest forecasts from Tourism Research Australia project increases in total Australian outbound travel of 7.7% in 2011 and 4.7% in 2012. This includes corresponding growth of 9.0% and 3.6% in departures for the Fiji Islands. New Zealand’s Tourism Strategy Group projects outbound travel to grow 3.1% in 2011 and 3.6% in 2012. Trips from New Zealand to main Pacific destinations—the Cook Islands, the Fiji Islands, and Samoa—are expected to post average annual growth of about 3.0% over 2011–2012.

The ADB Pacific Department uses a simple method for forecasting growth in total tourist arrivals i.e., the departure growth projections from main sources of tourists are weighted by the share of visitors from each source in total arrivals. Sources of tourists are Australia, New Zealand, and “other” countries, where “other” accounts for visitors from Asia, Europe, and the US. To estimate expected tourism from these other sources, projected inbound tourism in the main transit point of each Pacific destination (i.e., Australia for the Fiji Islands and Vanuatu, and New Zealand for the Cook Islands, Samoa, and Tonga) is used as a proxy.

For example, in the Fiji Islands about 40% of tourists are from Australia, 20% are from New Zealand, and the remaining 40% are from other countries. Given the projected increase in departures from Australia (9.0%) and New Zealand (3.4%) to the Fiji Islands, and the projected growth of inbound tourism in Australia (5.6%), the estimate of tourist arrivals growth in the Fiji Islands is:

\[(0.4)(9.0)+(0.2)(3.4)+(0.4)(5.6)=6.5\%\]

Adjustments to account for country-specific factors are then applied. In the case of the Fiji Islands, information on plans to raise tourism marketing spending by about $1.3 million in the current fiscal year led to an upward adjustment of the final forecast to 7.0%. For the Cook Islands, the introduction of new direct flights from Nadi and Sydney are likewise considered. This simplified method was used to project the increases in tourist arrivals illustrated in the figure below.

The general outlook for 2011 is for slower tourism growth in the Fiji Islands and a resumption of growth in other destinations, reflecting the end of the 2009-2010 adjustment. Potential risks to the forecasts include rising fuel costs and uncertainty on the impacts of recent calamities (e.g., floods in eastern Australia, earthquake in Christchurch) on Australian and New Zealand outbound tourism.

Lead authors: Rommel Rabanal and Joel Hernandez.
Timor-Leste: Growth to 2030

Timor-Leste became a lower middle-income country in 2007. Its Strategic Development Plan 2011-2030 presents the goal of achieving upper middle-income status by 2030. This goal would require an increase in per capita gross national income—i.e. nonpetroleum GDP plus net offshore income—from approximately $2,500 in 2010 to about $4,000 by 2030 (in 2010 prices).

Timor-Leste’s petroleum revenue is expected to be low in 2030. This means nonpetroleum GDP per capita will need to rise from the 2010 level of approximately $600 to almost $4,000 by 2030 (in 2010 prices). Double-digit rates of growth in nonpetroleum GDP may be needed over 2011–2030 to reach the Strategic Development Plan’s income target.

What is needed to sustain such a high growth rate in nonpetroleum GDP? Long-run economic growth results from the combined accumulation of three factors: production, capital and labor, and productivity improvements. This simple formulation underpins what is known as growth accounting. This article applies the insights from recent growth accounting exercises undertaken of emerging Asia by ADB. It estimates the key inputs required by the Timor-Leste economy over 2011-2030, including the required accumulation of human and physical capital and of improvements in total factor productivity.

Projections of the basic growth accounts for 2011–2030 are prepared for Timor-Leste for five scenarios:

**TIM A**, the baseline scenario. This is based on recent trends in Timor-Leste; parameters from the international literature; and the experience of emerging Asia. A key assumption is that total factor productivity growth will match the average achieved by emerging Asia over 1981–2007.

**TIM B**, which is the same as the baseline scenario but with total factor productivity growth at a rate required for average double-digit growth in nonpetroleum GDP.

**TIM C**, which is the same as TIM B but with achievement of the Strategic Development Plan’s goal of all students completing 12 years of schooling, and a rate of total factor productivity growth that will achieve average double-digit growth in nonpetroleum GDP.

**TIM D**, which is the same as the baseline scenario but with an investment ratio required for average double-digit growth in nonpetroleum GDP.

**TIM E**, which is the same as TIM D, but with the ratio of investment to gross national income capped at about 60%. Total factor productivity is assumed to grow a rate required for average double-digit growth in nonpetroleum GDP.

It is concluded that an internationally high rate of economic growth is achievable if Timor-Leste matches standards achieved elsewhere in developing Asia.

Growth factors in Timor-Leste’s favor include a growing labor force, an ability to fund a high rate of public investment from petroleum revenue, and the potential benefits of catching up in education and technology. It is projected the economy could grow faster than much of developing Asia over the next 2 decades, and quickly narrow the income gap with upper middle-income countries.

The relatively high growth rate projected for Timor-Leste is consistent with the “conditional convergence” effect. Economic theory and empirical analysis have found that a country with a low initial income level relative to its potential income level will tend to grow faster than a country that is closer to its potential income level. This is mainly because of the potential for a quick catch-up through the adoption of more advanced technology, better techniques, etc. than was available to higher income economies in their earlier development.

The projections identify what is required to sustain double-digit growth in nonpetroleum GDP.

The projections find that double-digit economic growth can only be achieved if there is a very high rate of investment. Capital accumulation has contributed most of developing Asia’s economic growth, and is also likely to contribute most of Timor-Leste’s growth during 2011-2030. This suggests that a high rate of productive public investment and efforts to improve the climate for private investment are priorities for Timor-Leste.

It is also found that the growth in total factor productivity must at least match some of the best performers of developing Asia. A typical low-income economy can rely on factor accumulation for its early growth, and only become dependent on high productivity growth later on. Timor-Leste would need to achieve good productivity growth earlier in its development process than other economies of emerging Asia.

It is found that the growth projections are not overly sensitive to assumptions regarding how quickly Timor-Leste is able to expand participation in education.
Timor-Leste: Growth to 2030

Basic growth accounts for Timor-Leste

<table>
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<tr>
<th>Variable</th>
<th>Projected annual average growth rates for 2011–2030 (% per annum)</th>
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<td>TFP</td>
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Basic growth accounts for emerging Asia

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<th></th>
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<tr>
<td>TFP</td>
<td>4.1 1.5 0.9 1.4</td>
<td>2.3 1.5 1.6 1.6</td>
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</table>

Contributions to GDP growth: Forecasts for 2011-2030

AEDs=Asian developing economies; GDP=gross domestic product; PRC=People’s Republic of China; NIEs=newly industrializing economies; TFP = total factor productivity; TIM=Timor-Leste, TIM A=baseline scenario, TIM B=high TFP growth scenario, TIM C=education catch-up scenario, TIM D=high investment scenario, TIM E=broad-based, double-digit growth scenario.

Notes: (a) GDP for Timor-Leste refers to nonpetroleum GDP excluding the contribution of the United Nations, (b) averages for country groups of developing Asia are simple averages, (c) the addition of the individual contributions to growth equals the GDP growth rate.

Timor-Leste: Growth to 2030

If double-digit rates of economic growth are to be sustained, investment will probably need to rise above $1 billion per annum within 5 years and above $1.5 billion per annum within 10 years (in 2010 prices). This would be a very large increase on the 2010 investment level of about $300 million. It is projected that lower, but still internationally high, rates of economic growth could be achieved if investment was around half these levels. This lower level of investment, of at least $0.5 billion per annum within 5 years and more than $0.75 billion per annum within 10 years (in 2010 prices), could be used as a minimum target investment level.

The public sector is currently funding most investment. Fiscal constraints will probably prevent it from doing so during the whole 2011-2030 period. It follows that sustaining a high rate of economic growth rests on achieving a transition from public to private sector-led investment.

The best prospects for much of Timor-Leste’s private sector are in the micro, small, and medium-sized enterprises. However, the economy needs large-scale investment to achieve high rates of economic growth. Foreign investment will be needed to help fill the gap. Timor-Leste’s success in establishing itself as one of developing Asia’s investment destinations will, therefore, be pivotal to the economy’s growth path.

As illustrated by the success of emerging Asia, achieving a high rate of economic growth will require a supportive policy and institutional setting, a high standard of infrastructure, and a well educated labor force. Emerging Asia’s development record in these areas provides a benchmark standard that Timor-Leste could use to set targets.

Matching emerging Asia overall will be important to ensuring that Timor-Leste is internationally competitive, particularly in terms of attracting private investment. If Timor-Leste is unable to match emerging Asia in some areas (e.g., wage rates), it will need to do better than emerging Asia in others if it is to be competitive (e.g., infrastructure standards, education standards). Key initiatives to achieve competitiveness are provided by the Strategic Development Plan 2011–2030, and early implementation will do much to enhance the prospects for sustainable economic growth.

Pacific Economic Management Technical Assistance (PEMTA) direction and strategy

Subproject 1

The global economic crisis and its aftermath affected the small island economies in the Pacific region with varying intensity. While a few weathered the crisis relatively well, most have suffered heavily. Their fragile and open economies have been badly affected by the decline in demand for their exports, the fall in remittances, the decline in government tax collections. This added to problems caused by the preceding rise in food and oil prices.

Subproject 1 of ADB’s Pacific Economic Management Technical Assistance project (or PEMTA, as it has become commonly known) was established in mid-2009 to help Pacific island countries cushion the adverse effects of the crisis. The focus of this assistance was on providing policy advice and improving economic management tools. Since its establishment, the PEMTA team has assisted seven countries and undertaken scoping missions to two others. The assistance has included monetary policy advice to Solomon Islands, Tonga, and Vanuatu; fiscal management assistance to the Cook Islands, the Fiji Islands, Kiribati, and Timor-Leste; developing a national strategic plan for Solomon Islands; and building fiscal management models for the Cook Islands and Tonga.

Subproject 2

In July 2011, the PEMTA project will initiate Subproject 2, Enhanced Economic Management. This will update the technical assistance for the postcrisis environment and deepen efforts to raise openness and transparency in economic management. The subproject will help build a stronger platform for growth in the medium term. In the second phase, the PEMTA will also address the challenges identified in a 2010 review of the project.

The second phase has specified three core areas that PEMTA will cover: macroeconomic management and fiscal adjustment, industrial policy, and economic cooperation and integration. Most of the demand for technical assistance is expected to be in the first two areas, and this will be taken into account when forming the PEMTA team. From the experience so far, the demand in the first two areas will exceed supply. Synergies with other relevant providers will be explored so as to meet demand. The inclusion of industry policy as a core area reflects the reliance of the Pacific islands on one or two key industries and will complement the work on macroeconomic management and fiscal adjustment. The third core area, economic cooperation and integration, reflects this issue’s importance to the future of the small island countries in the Pacific region.

Acceptability and Credibility

The success of the PEMTA project rests on its acceptability by the Pacific islands governments. This acceptability hinges on the credibility and independence of its advice which, in turn, creates confidence in the TA. The PEMTA includes a team of highly experienced policy personnel who have held senior positions with ministries of finance and central banks in the region and with international agencies such as the International Monetary Fund. The team, therefore, has considerable depth and breadth of experience in the issues facing the Pacific countries. Moreover, the PEMTA is based in the region. While these are not sufficient conditions for the success, the ability of the team members to engage senior decision makers in policy dialogue and be able to share practical experiences in dealing with the challenges that the region faces are important steps towards securing acceptability, credibility, and confidence.

Relevance

The PEMTA project, like all other assistance to the region, must be relevant, taking into account each country’s particular challenges and dynamics, which may not be clearly visible. To secure relevance, the PEMTA team is developing an individual strategy for each country to guide the delivery of its assistance in 2011. Each strategy will address the specific challenges that the country faces, its priorities, and the programs that may be already on the ground. It is recognized that the team needs to be flexible enough to respond to any changes in circumstances in assisted countries.

Transparency

One of the key challenges to be faced in Subproject 2 is increasing the transparency of government policy. Such transparency has been a feature of the successful economic management in the region. The aim is to help create an inclusive policy-making environment. Some progress was made in this respect under Subproject 1. Progress, however, was less than hoped given the necessity to first build closer and stronger relationships with the host governments. Where the TA is well integrated into a government’s policy-making
PEMTA direction and strategy

machinery, in 2011 the TA team plans to help widen the policy dialogue. At the same time, the PEMTA team will promote public dialogue of regional issues with educational institutions such as universities and similar agencies. The team also intends to mount regional or subregional discussions on topics of interest.

Responsiveness

One of the keys to the effectiveness of the PEMTA project is its quick response time. Countries regard this as very important. The TA team has set a target of responding within 1 month of receiving a request that meets its capabilities. The interest of the country and the timing of the assistance requested by the host government will drive the speed of the response from the PEMTA team. We aim to streamline the internal processes to allow speedy delivery of assistance.

Capacity building

The PEMTA team is also mindful of the constraints on capacity in the region. This is understandably the most pressing challenge that Pacific island countries face. Sustainability of the assistance is, therefore, high on the list of considerations. While capacity constraints are more commonly visible at the technical level, they are also present at the decision-making level. In response, the PEMTA team is able to help decision makers and assist in setting the big picture, bridging policy gaps, and identifying hurdles to policy implementation. Sustainability is taken into account in framing recommendations and offering solutions. The PEMTA team intends to create a pool of regional economists to promote innovative approaches to addressing the challenges that countries face, and changing the mindsets that could hinder the economic success of the Pacific region. Wherever possible, the PEMTA team will integrate training and other capacity building activities in its assistance to the region.

Coordination

There are many agencies that have a presence in the region. To avoid duplication, it is important that the PEMTA project continue to coordinate its work with other relevant providers, particularly the Pacific Financial Technical Assistance Centre. Given that the strengths of the PEMTA team are in strategy and policy, we will actively look for ways to complement the work of other providers in the region in these areas.

Evaluating Performance

The performance of the PEMTA team will be gauged against a matrix called the Design and Monitoring Framework. This framework specifies that the purpose of the PEMTA is to strengthen capacity of Pacific developing member countries to manage for inclusive economic growth, and the outcome is to assist these Pacific countries to use improved economic management processes. The framework further identifies outputs and activities. Requests for assistance by the project are assessed against this framework, as the project must ultimately deliver the targeted results to be considered a success. Reports are also being designed to closely reflect the aims of this framework, which will facilitate monitoring of the TA’s performance. These reports will be shared with relevant agencies.

Accessing PEMTA assistance

Countries wishing to request PEMTA assistance can contact the team leader, Savenaca Narube, or ADB regional or subregional offices.
Regional support for macroeconomic analysis

The IMF’s Pacific Financial Technical Assistance Centre (PFTAC) has recently added a resident macroeconomic advisor to its existing complement of four advisors. This position was created at the request of the Pacific Financial Technical Assistance Centre’s steering committee following a recommendation in the recent independent evaluation.

The new advisor is Mr. Jan Gottschalk. Prior to joining the Pacific Financial Technical Assistance Centre, Jan worked at IMF headquarters in a wide range of roles in the African, fiscal affairs, and policy review departments. He has particular expertise in macroeconomic modeling, debt sustainability analysis, and the macroeconomic and fiscal implications of natural resource extraction.

The main objective of the macroeconomic advisor is to help the member countries of the Pacific Financial Technical Assistance Centre strengthen their macroeconomic analysis and forecasting capacity. The foundation for both tasks is a coherent macroeconomic framework, and the advisor has begun work with central bank staffs in the Fiji Islands, Papua New Guinea, and Samoa to develop and refine their existing frameworks. This requires an empirical analysis of the key economic interlinkages. To facilitate this, training in econometric techniques is part of the work program with the central bank of the Fiji Islands. Looking ahead, the resulting frameworks are intended to improve both policy analysis and forecasting.

Policy analysis is a task that benefits from practice and sharing of views; hence, regional financial programming workshops will be an important part of the work program. Some of these workshops may be conducted jointly with PEMTA. The Pacific Financial Technical Assistance Centre would focus on the technical analysis while the PEMTA would be well suited to bring a wide range of policy experience to the table.

With respect to economic forecasts, an example where a small macroeconomic framework is used for forecasting is the Samoa Economic Revenue and Forecasting model developed with ADB assistance. The macroeconomic advisor of the Pacific Financial Technical Assistance Centre currently assists the Samoan Ministry of Finance in making effective use of this model.

In the coming months, the Pacific Financial Technical Assistance Centre looks to continue working with ADB and other development partners to help strengthen macroeconomic analysis and policy making in the Pacific. Regional workshops and coordination will be important elements of the work plan, but sustained country-level technical assistance will continue to be critical.

This article was prepared by Jan Gottschalk and Matt Davies. Country authorities wishing to request assistance from the Pacific Financial Technical Assistance Centre can contact Jan Gottschalk (jgottschalk@imf.org) or Matt Davies (mdavies@imf.org).
Nonfuel merchandise exports from Australia
(A$; y-o-y % change, 3-month m.a.)

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

A$ = Australian dollars
Source: ABS.

FMS=Federated States of Micronesia, fas=free alongside, fob=free on board, m.a.=moving average, NZ$=New Zealand dollar, RMI=Republic of the Marshall Islands, US=United States
Note: The Cook Islands–Fiji Islands shipping route closed in 2009.
Sources: Statistics New Zealand and US Census Bureau.
Motor vehicle imports from Japan
(number; y-o-y % change, 3-month m.a.)

Departures from Australia to the Pacific (monthly)

**Cook Islands**
- Persons ('000)
- Y-o-Y % change (rhs)

**Fiji Islands**
- Persons ('000)
- Y-o-Y % change (rhs)

**Samoa**
- Persons ('000)
- Y-o-Y % change (rhs)

**Tonga**
- Persons ('000)
- Y-o-Y % change (rhs)

**Vanuatu**
- Persons ('000)
- Y-o-Y % change (rhs)

**Major destinations**
- Persons ('000)
- Y-o-Y % change (rhs)

**Outlook for major destinations**
(annual % change)

**Sources:** ABS and Tourism Research Australia.
Departures from New Zealand to the Pacific (monthly)

Cook Islands

Fiji Islands

Samoa

Tonga

Vanuatu

Major destinations

Outlook for major destinations (annual % change)

Source: Tourism Strategy Group, New Zealand Ministry of Economic Development.
## Latest Economic Updates

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<tr>
<th>Country</th>
<th>GDP Growth (%, 2011f)</th>
<th>Inflation (%, y-o-y)</th>
<th>Credit Growtha (%)</th>
<th>Trade Balance (%, of GDP)</th>
<th>Import Cover (months)</th>
<th>Fiscal Balance (% of GDP)</th>
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--- = not available, e=estimate, f=forecast, FSM=Federated States of Micronesia, GDP=gross domestic product, PNG=Papua New Guinea, p=preliminary, 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 brackets; import cover for PNG is months of non-mining and oil imports.


**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 substantially 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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