INTERNATIONAL MONETARY FUND

IMF Country Report No. 11/117

PAPUA NEW GUINEA

2011 ARTICLE IV CONSULTATION

Papua New Guinea: 2011 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Papua New Guinea

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2011 Article IV consultation with Papua New Guinea, the following documents have been released and are included in this package:

- The staff report for the 2011 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on February 21, 2011, with the officials of Papua New Guinea on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on May 3, 2011. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.

- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its May 18, 2011 discussion of the staff report that concluded the Article IV consultation.

- A statement by the Executive Director for Papua New Guinea.

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

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PAPUA NEW GUINEA

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION

May 3, 2011

KEY ISSUES

Context: Papua New Guinea has enjoyed a decade of solid economic growth, supported by greater political stability, a sound fiscal framework, and a healthy banking sector. National elections are scheduled for 2012.

Growth prospects: High commodity prices and the construction of a liquefied natural gas production facility (LNG) are fuelling an economy already facing capacity constraints. Rising consumer and asset price inflation are threatening macroeconomic stability. Risks are tilted to the upside and include the potential for new mines and natural gas production.

Macroeconomic stability: Tighter macroeconomic policies are needed to contain inflationary pressures. Staff welcomed last year's withdrawal of the large fiscal impulse that was in place in 2009 and recommended continued fiscal restraint during the LNG construction boom. Monetary tightening is needed to contain inflationary pressures and reduce the risk that higher inflation becomes entrenched in expectations. Greater exchange rate flexibility would help cushion demand shocks.

Raising living standards: Minerals have the potential to transform the PNG economy and raise long-term growth and living standards. Public spending needs to be better aligned with policy priorities and provision of essential social services improved, so that the benefits from the natural resource boom are more evenly spread. Structural reforms should be implemented to support the development of the nonmineral sector.

Financial and external stability: The financial sector assessment program (FSAP) found that the financial system remains sound and should be able to withstand moderate shocks. A large current account deficit, related to the LNG investment, is temporary and largely financed by FDI. The real exchange rate is expected to appreciate.

Approved By
Ray Brooks and Christian Mumssen

Discussions took place in Port Moresby from February 10–21, 2011. The staff team comprised Messrs. Schule (head), Ochirkhuu, Wang (all APD), Yang (Regional office Fiji), Bulman (World Bank), and Mellor (AsDB). Mr. Basu (APD) joined the team after the mission.

CONTENTS

APPENDICES

INTRODUCTION

1. **Papua New Guinea has enjoyed 10 years of positive economic growth.** This unprecedented achievement for the country owes much to greater political stability, sound macroeconomic policies, and improved public finances. Higher commodity prices and the construction of a liquefied natural gas (LNG) project—a 190 percent of GDP investment—are boosting an economy facing capacity constraints. As a result, rising consumer and asset price inflation is threatening macroeconomic stability. To lower the risk of overheating, firm fiscal and monetary policies are required. This may be challenging with elections upcoming in 2012.

2. **Rich natural resources provide an opportunity to raise long-term growth and living standards.** To ensure that the opportunity is not wasted, sound policy frameworks and implementation will be essential. In particular, strict adherence to the allocations in the 2011 budget, close coordination of monetary and fiscal policies, and the integration of a sovereign wealth fund (SWF) into the macro framework should help maintain macroeconomic stability. Improvements in public financial management and structural reforms are needed to ensure that development objectives are achieved.

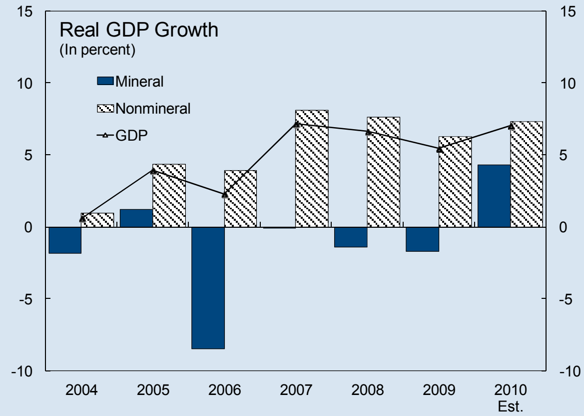
RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

3. **Economic growth increased in 2010.** The economy has weathered the global recession relatively well and real GDP growth is estimated to have picked up from 5½ percent in 2009 to 7 percent in 2010. The turnaround in the mineral sector was due to the start of production at new mines and slower-than-expected decline in oil and gas extraction on the back of higher commodity prices. Banks continued to finance a dynamic nonmineral economy, which got an additional boost from construction, transport, and communication related to the LNG project. Responding to high demand and rising food prices, agriculture production rebounded. However, the country's infrastructure—roads, ports, and utilities—shows signs of capacity constraints, and bottlenecks have appeared in the markets for skilled labor and land (Figure 1).

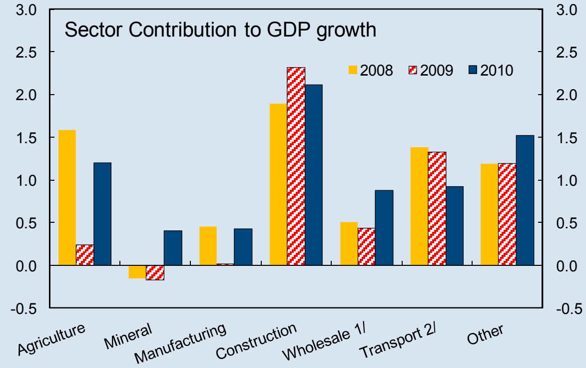
4. **Strong domestic demand, the pick-up in international food prices, and the depreciation of the kina fuelled inflation in 2010.** Headline inflation reached 7.8 percent in December. Underlying inflation has been trending upward since mid-2009 to 6 percent and is increasingly driven by domestic demand and higher labor costs. Moreover, inflation is likely to be underestimated in official data, which take inadequate account of rental increases and are based on an outdated consumption basket.

Figure 1 Papua New Guinea—Macro Performance

Growth has picked up, particularly in the mineral sector…

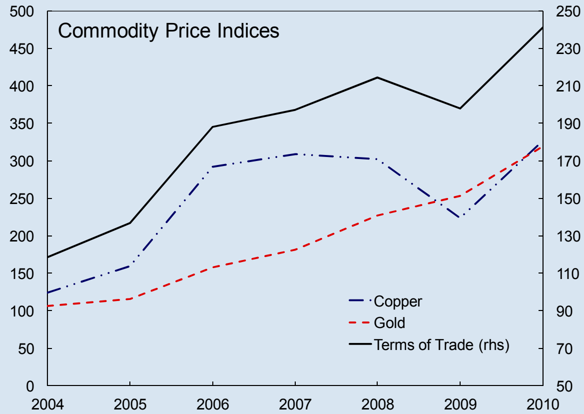


…boosted by activity related to the construction of the LNG project,…

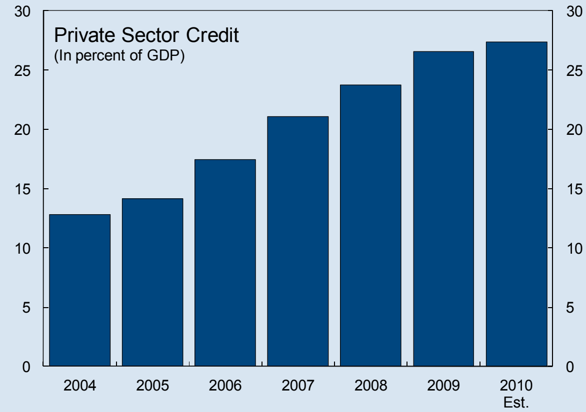


1/ Wholesale and retail trade
2/ Transportation and communication

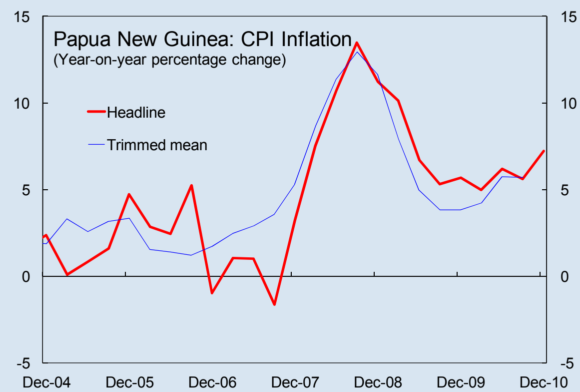
…supported by commodity prices and terms of trade,…



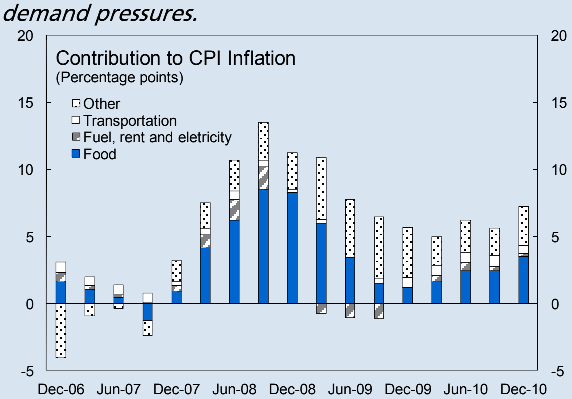
…and a strong financial sector continuing to lend.



Inflation is trending up…



…driven by international food prices and domestic demand pressures.



Sources: Bank of Papua New Guinea; International Financial Statistics, *World Economic Outlook*; and IMF staff calculations.

Staff's Views

5. **Near-term growth is projected to remain strong.** Staff expects real GDP growth of 9 percent in 2011 as activity is boosted by the construction of the large LNG project, buoyant commodity exports, the start of production at the Ramu Nickel and Hidden Valley mines, and strong investor confidence. In 2013/14, real GDP growth is projected to slow down sharply as LNG construction and extraction from maturing oil fields and from the largest copper mine wind down. LNG production starts in 2015, leading to a 20 percent level jump in GDP. In the absence of further LNG plants and new mines, GDP growth is expected to converge to a 3–4 percent long-run trend rate. Nonmineral GDP growth per head is projected to continue at a moderate pace (Table 6).

6. **Inflation is expected to accelerate in 2011.** Domestic demand is increasingly becoming a major driver of core inflation, and headline inflation could temporarily rise into double-digits pushed by international food and energy prices. Inflationary pressures are exacerbated by increases in public spending, higher wage costs—resulting from a shortage of skilled labor—and rapidly increasing prices associated with the use and development of land. Moreover, staff sees a risk that high inflation becomes entrenched in expectations. However, the impact of recent increases in international food prices on consumers is likely muted by a strong domestic supply response by peri-urban food producers (Box 1).

7. **Risks to growth and inflation are tilted to the upside.** Upside risks include an increase in mining activity related to high commodity prices, an early start of a second LNG project, stronger-than-expected private sector investment, and additional fiscal spending from trust accounts. Downside risks include possible disruptions in mining and delays in the LNG project, mainly related to land disputes, social tension that may be created by rising income inequality, and a possible correction of very high real estate prices in Port Moresby and Lae.

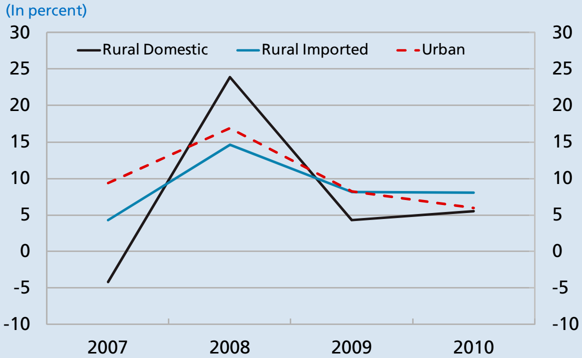
Authorities' Views

8. **The authorities broadly agreed with staff's assessment of the economic outlook and inflation.** Reflecting high volatility and uncertainties surrounding projections of commodity prices and production, their outlook is based on conservative assumptions. Like staff, their projections include only new mining and LNG projects with an approved development plan, but unlike staff, the authorities assume commodity prices to return gradually to recent lows. They agreed that official CPI measures are understating inflation. The 2010 household income and expenditure survey will be used to improve the quality of data, including the CPI basket. Real estate prices are about to peak, but any correction is likely to be muted.

Box 1 The Impact of Food Price Movements on the Poor in PNG

Food price increases over the past year were moderate. In 2010, the prices of imported foods increased faster than those of domestically produced items. Nonetheless, urban households, in particular the landless urban poor, benefited from low-priced rice imports. Rural households living near major cities such as Port Moresby have become important food suppliers to the urban population.[1] Their incomes increased moderately in 2010 and less than they had done during the food price surges of 2008. They cut back on imported foods, which represent a small portion of their diet, but an important source of protein.[2] Subsistence farmers, and households further away from urban centers, were largely unaffected by increases in urban prices of domestically produced items.

Growth in Food Price Indices
(In percent)



Sources: IMF staff calculations using BPNG CPI data, 1996 HIES weights.

Percentage of Change in Import Prices Passed Through to Domestic Prices				
	Pt. Moresby	Goroka	Lae	Madang
Short run (3 quarters)	-9	69	44	55
Long run	25	72	24	37
Source: Mellor (2009).				

Higher world demand for agricultural commodities has benefited rural regions, which export these products. Coffee price increases have increased cash income of the Eastern and Western Highlands, while high cocoa prices have benefited East New Britain and Bougainville. Oil palm production areas, such as the Hoskins project in New Britain, have enjoyed a price boom.

An elastic domestic supply response by substitute foods producers will mitigate the effect of projected increases in international food prices. Econometric analysis by Mellor (2009) suggests a weak and temporary pass-through from import prices to domestically produced goods prices in the major cities apart from Goroka.[3] The likely channel is a high propensity for peri-urban farmers to substitute between subsistence and market production in response to price changes.

[1] "Feeding Port Moresby Study," Fresh Produce Development Agency (FPDA, 2008).
[2] "Food and Agriculture in Papua New Guinea," Bourke and Harwood (2009).
[3] "Social Impact of Commodity Price Volatility in Papua New Guinea," Mellor (2009).

POLICY THEME #1—MANAGING THE RISK OF OVERHEATING

A. Fiscal Policy

9. **The large fiscal stimulus in place in 2009 was unwound in 2010.** Windfall mineral revenues during the commodity price boom in earlier years were largely saved in trust accounts to pre-finance development expenditure or used to reduce public debt. However, in 2009 when the global financial crisis hit and commodity prices were low, the government relaxed restrictions on spending from trust accounts, and the fiscal balance moved into a deficit of 9½ percent of GDP.

In 2010, global commodity prices rebounded and mineral revenue recovered, at the same time trust-account spending slowed. As a result, budget balance was almost achieved and the fiscal stance tightened.

10. **Over the past 8 years, gross public debt fell from about 70 percent of GDP to below 30 percent of GDP.** Public debt is approaching a sustainable level and is below the average of low income countries in the Asian-Pacific region. Moreover, for the first time the government has allocated funding to meet its annual obligations with superannuation funds and settled some of its arrears.

Staff's Views

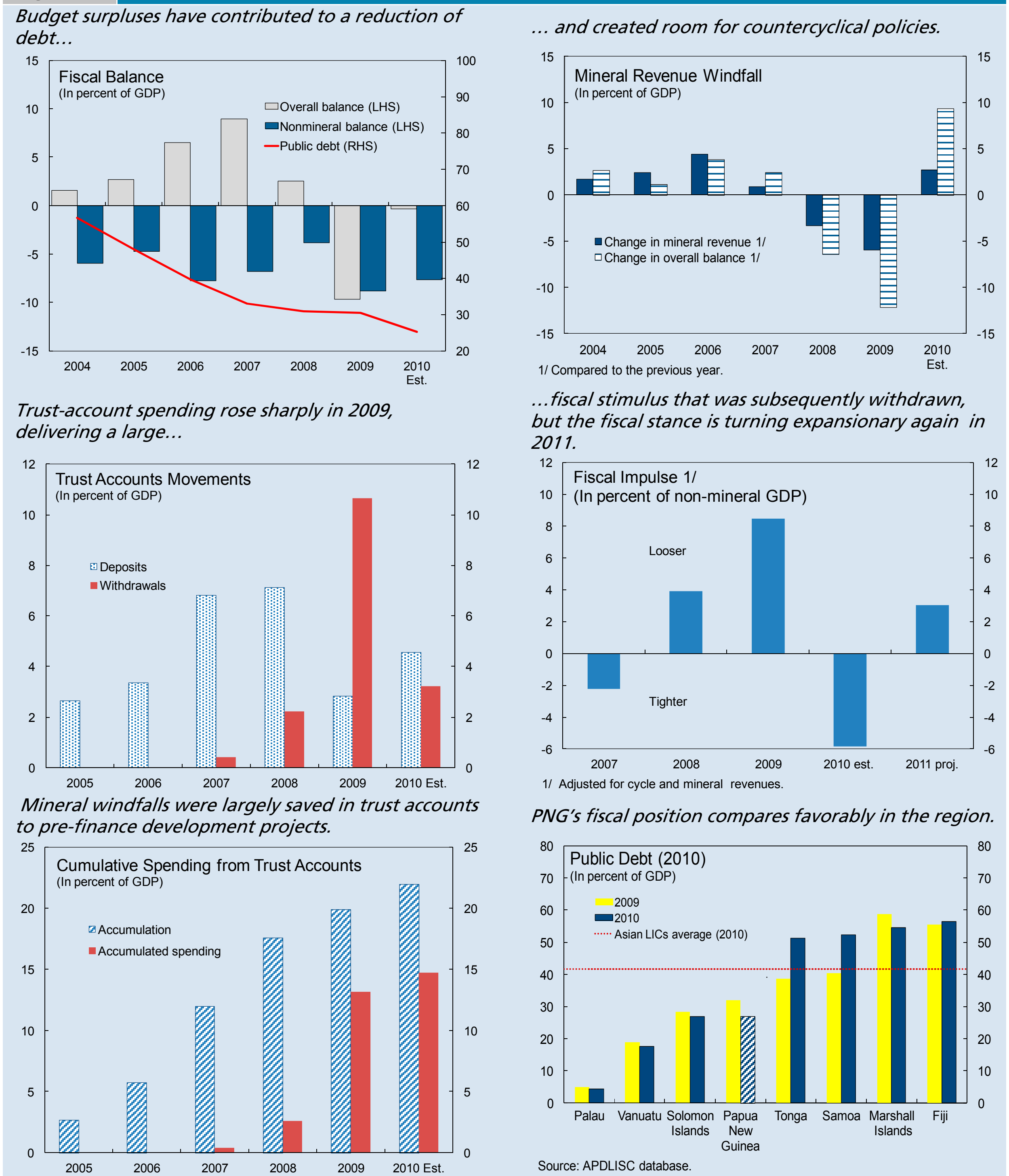
11. **For 2011, the government targets a balanced budget.** However, the government's target does not include spending from trust accounts. Staff includes additional spending out of trust accounts, and assumes that trust-account spending remains just below the Medium-Term Fiscal Strategy (MTFS) ceiling of 4 percent of GDP—though with national elections in the offing, this assumption might be optimistic. In addition, it is unclear how much of the 2009 withdrawals from trust accounts has actually been spent or is still in the banking system, waiting to be spent during the election period. On the other hand, staff assumes higher commodity prices than the authorities, leading to higher-than-budgeted mineral revenue. As a result, staff expects a budget surplus of 1 percent of GDP.

12. **Despite the surplus, the pace of overall public spending risks exacerbating inflationary pressures at a time when LNG construction peaks.** Staff expects no further fiscal tightening to materialize and total public expenditure to increase faster than nominal GDP in 2011, resulting in a fiscal stimulus of about 3 percent of nonmineral GDP.

13. **Tight budget implementation is needed to reduce demand pressure.** Budget allocations should be strictly adhered to. Moreover, savings opportunities should be rigorously exploited and the typical year-end spending rush avoided. Instead, under-spent resources could be reallocated next year if needed. Some development projects are currently facing inflated prices as they are competing for scarce resources with private sector construction activities. Delaying these projects until the LNG construction phase is over, would lower demand pressures, raise value for money, and help achieve better service delivery.

14. **Further reductions in public debt would reduce PNG's vulnerability to shocks.** The steady reduction in public debt over the past decade is commendable. However, none of the windfall revenues was used for debt reduction in 2010, in contrast to the previous MTFS rule to use 30 percent of above-normal mineral revenues for this purpose. Instead the government modified the MTFS rule to allow 100 percent of above-normal revenues to be devoted to public investment in future budgets, as long as debt stays below 30 percent of GDP. In light of falling oil and copper

Figure 2 Papua New Guinea—Fiscal Performance



Sources: Papua New Guinea authorities; APDLISC, and IMF staff calculations.

production over the medium term and the high uncertainties about the timing of future LNG revenues, staff noted it would be prudent to lower this threshold to 25 percent of GDP (around current levels) and include contingent liabilities in the calculation of the debt ceiling. Moreover, with mineral output falling, *normal revenues* from minerals should decline until LNG revenues commence.

15. **Staff advised that further net debt reductions below the current level can be achieved by:**

- Saving any windfall revenues that may accrue, should market expectations of higher-than-budgeted mineral prices be realized, and setting aside some of these savings for debt reduction or to cover future liabilities related to participation in the LNG project.
- Developing a payment schedule for the remaining unfunded superannuation liabilities.

16. **Expectations about future mineral income need to be well managed.** Once public revenues from LNG are affirmed, there may be some limited room for additional borrowing for well-identified development projects. To avoid excessive lending, gross and net public debt-to-GDP ratios of below 25 percent could serve as medium-term fiscal anchors.

Table: Public Debt and Liabilities (In percent of GDP)

	2006	2007	2008	2009	2010	2016
					Est.	Proj.
Public debt	39.7	33.6	31.7	32.1	26.5	13.8
Of which: public domestic debt	18.2	16.9	18.5	19.2	15.8	6.8
Of which: public and publicly guaranteed (PPG) external debt	21.5	16.6	13.2	12.9	10.7	6.9
Public liabilities 1/	8.6	9.3	8.7	28.5	24.4	8.5
Of which: LNG equity finance	…	…	…	19.4	16.9	5.9
Of which: superannuation arrears	8.6	9.3	8.7	9.2	7.5	2.6
Gross public debt and liabilities	48.3	42.8	40.4	60.6	50.9	22.3
Government financial assets 2/	8.5	12.5	16.8	30.9	29.7	7.0
Net public debt 3/	39.9	30.3	23.6	29.7	21.1	15.3
Memorandum items						
Nominal GDP (Kina, billions)	16.9	18.8	21.6	22.2	25.4	72.8

Sources: PNG authorities and IMF staff calculations.
1/ Does not include guarantees to state-owned enterprises (SOE), which were estimated at 2.5 percent of GDP in 2008 (no updates available).
2/ Includes government equity stake in the LNG project.
3/ Gross public debt and liabilities less government financial assets.

Authorities' Views

17. **The authorities noted that the 2011 budget strikes a balance between fiscal restraint in an economy that faces capacity constraints, pre-commitments, and development needs.** For Ministers to agree on a balanced budget in a pre-election year was challenging. Moreover, there are many developing

needs and funding of public services has been eroded in recent years, including for security, education, health, and maintenance and rehabilitation of infrastructure. Prudent revenue assumptions are appropriate, given PNG's past experience with commodity price booms and uncertainties surrounding new LNG and mining projects.

B. Monetary Policy

18. **The BPNG has kept its policy rate constant at 7 percent since end-2009.** In 2010, the BPNG issued new central bank bills (CBB) totaling about 2 percent of GDP and increased the cash reserve requirement in October from 3 to 4 percent to absorb excess liquidity and reduce credit expansion by the banking system. Nonetheless, total liquidity in the banking system increased by almost 12 percent, mainly due to foreign exchange inflows, including mineral taxes and dividends. As a result, net foreign reserves increased by 19 percent and CBB and Treasury bill rates fell by about 3 percentage points. A weaker exchange rate and falling treasury rates indicate that monetary conditions have eased while excess liquidity in the banking system continues to reduce monetary-policy effectiveness.

Staff's Views

19. **High inflation rates are costly and difficult to reduce.** Staff expects headline inflation to approach 10 percent in the short run and to stay elevated in the medium run. Moreover, measured inflation is likely to substantially underestimate true inflation. Such high inflation harms households on fixed incomes (e.g., retirees and minimum wage workers), distorts price signals, and reduces savings incentives. Over the medium term, higher inflation rates may be associated with greater inflation volatility and weakened central bank credibility. Once embedded in expectations, high inflation is difficult to reverse.

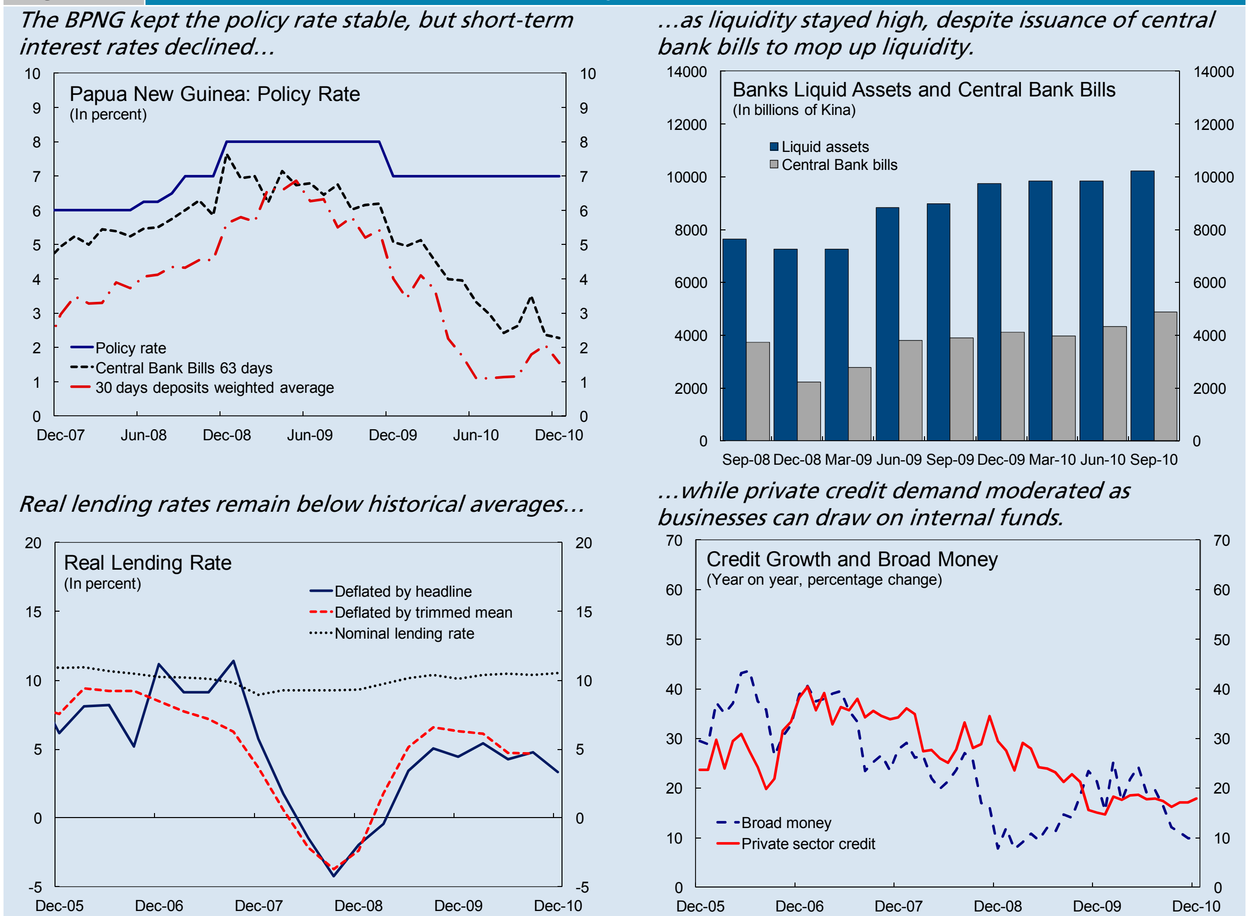
20. **Monetary policy needs to be tightened to contain inflationary pressures and reduce the risk of higher inflation becoming entrenched in expectations.** Monetary policy would work through three main channels:

- *Interest rates.* Raising the Kina Facility Rate (KFR) 3 to 4 percentage points above expected core inflation would provide an important signal. However, the policy interest rate seems to have only limited sway over market rates as long as liquidity remains abundant.

- *Liquidity.* The increase in the cash reserve requirement to 4 percent goes in the right direction and further increases should be considered. Liquidity could be reduced further by raising the CBB rate gradually back to just below the KFR.

- *Exchange rate.* Tighter macroeconomic policies would help mitigate real appreciation. Raising the KFR and letting markets determine the Kina exchange rate could shift the real exchange rate adjustment from inflation to nominal

Figure 3 Papua New Guinea—The Monetary Stance



Sources: Bank of Papua New Guinea; International Financial Statistics, and IMF staff calculations.

exchange rate appreciation. The pass-through of exchange rates to domestic prices is strong in PNG (see last year's Selected Issues, Chapter III).

21. **The decision to move all new trust accounts to the Bank of Papua New Guinea (BPNG) facilitates fiscal and monetary policy coordination.** It gives the BPNG better control over liquidity in the banking sector and market interest rates. Monetary policy will become more effective and the net cost to the public reduced by limiting the need to use high-cost central bank bills to mop up excess liquidity.

Authorities' Views

22. **The BPNG broadly shared staff's inflation forecast.** They agreed that inflation risks are on the upside and pointed to the need for fiscal restraint to reduce demand pressures. However, they were reluctant to increase interest rates because this could restrain private sector growth. The BPNG considered inflation below 10 percent tolerable at a time of high economic growth. With underlying inflation seen as stable, they considered the current monetary policy stance appropriate. However, the BPNG indicated they stood ready to tighten, should inflation exceed their comfort zone.

23. **The authorities shared concerns about excess liquidity.** The BPNG welcomed the decision to move new trust accounts to the central bank and suggested to manage them in offshore bank accounts. Further increases in the cash reserve requirement were also being considered.

C. Exchange Rate Assessment and External Stability

24. **Following several years of surpluses, the current account shifted into deficit amidst weak commodity prices in 2009.** Despite the recovery in commodity prices and exports, staff estimates the deficit to have widened to 24 percent of GDP in 2010, reflecting LNG-related goods and services imports and income deficits, mainly due to higher compensation of foreign employees, and higher dividend payments associated with increased mining profits from strong commodity prices (Table 3). However, current account deficits are largely financed by FDI and equity investments of the LNG partners. Foreign reserves are estimated to be around US$3.2 billion by March 2011 and cover almost five months of imports of goods and nonfactor services. The increase in reserves reflects strong inflows associated with mineral taxes and foreign investment.

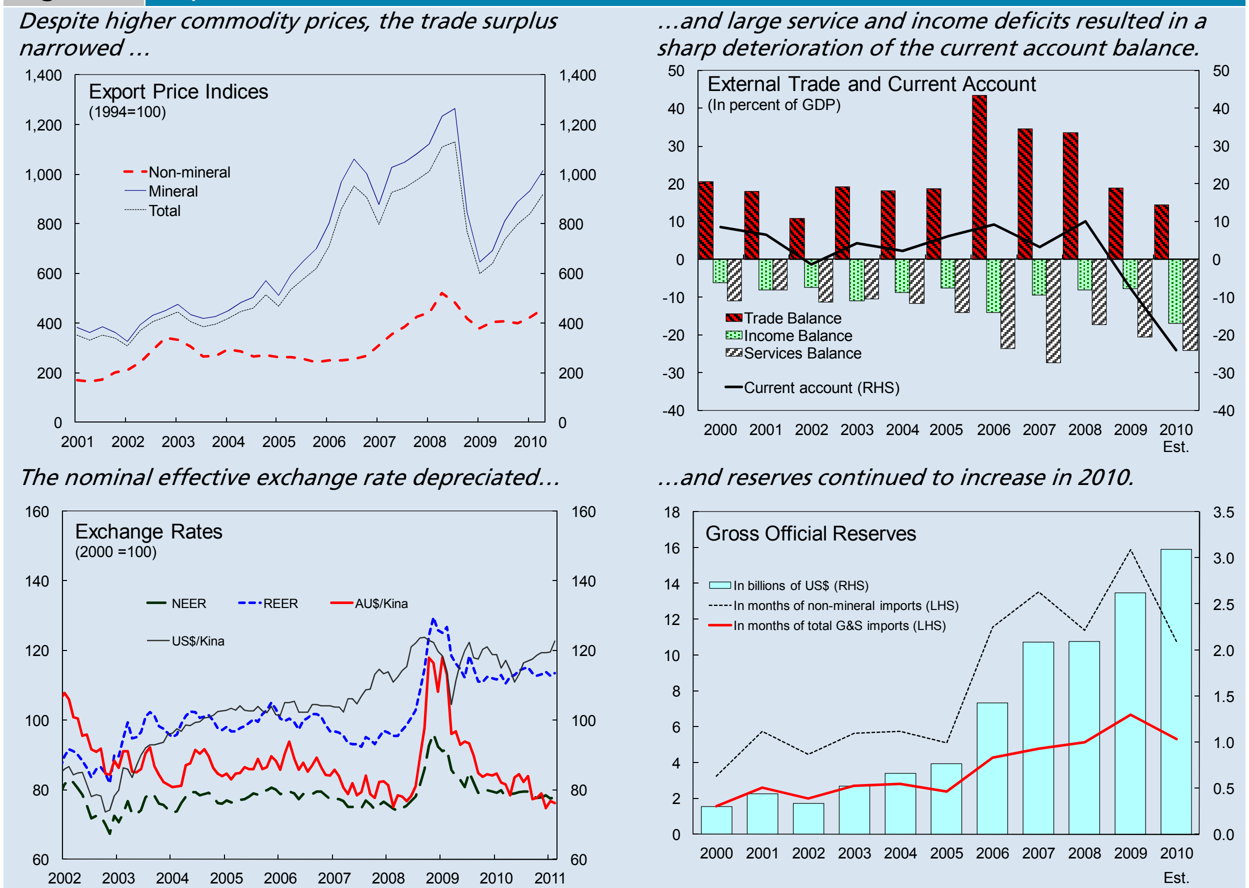
25. **The nominal effective exchange rate (NEER) depreciated by more than 7 percent in 2010.** PNG is classified as a floating exchange rate regime. Over a longer horizon, the NEER remained roughly flat, while a positive inflation differential with main trading partners led to an appreciation of the real effective exchange rate by 20 percent since early 2008.

Staff's Views

26. **Due to a fall in oil and copper production, current account deficits will continue until 2015 when LNG production is expected to start.** From 2015, LNG production and current-account surpluses are likely long-lasting. Nevertheless, a debt sustainability analysis shows a moderate risk of debt distress under a combination of negative shocks. This strengthens the case for a prudent approach to borrowing and enhanced fiscal discipline.

27. **The real exchange rate is broadly in line with macroeconomic conditions in 2010, but moderately undervalued when projected LNG exports are factored in (Box 2).** Uncertainties surrounding the estimation of equilibrium exchange rates imply, however, that the standard exchange rate assessment provides only rough guidance, in particular given uncertainties about the timing and scale of future LNG production and the lack of reliable data on local wages and prices of non-tradables.

Figure 4 Papua New Guinea—The External Position



Sources: Bank of Papua New Guinea; Bloomberg; Information Notice System; and IMF staff calculations.

Authorities' Views

28. The authorities agreed that the Kina is likely to appreciate due to the LNG and other mineral projects. While the authorities do not target a specific exchange rate, they are concerned that a rapid Kina appreciation hurts traditional exporters and the rural population. Therefore they favored a more gradual exchange rate adjustment. Central bank reserves have been increasing largely due to the payment of mineral taxes into government accounts at the central bank, while the BPNG has been a net seller of U.S. dollars on the spot markets.

Box 2 Exchange Rate Assessment

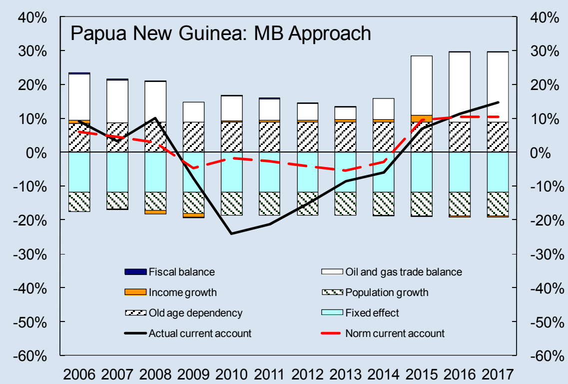
Papua New Guinea's real effective exchange rate remained stable throughout 2010. After appreciating by 4.7 percent in 2009, it rose by only 0.5 percent in 2010.

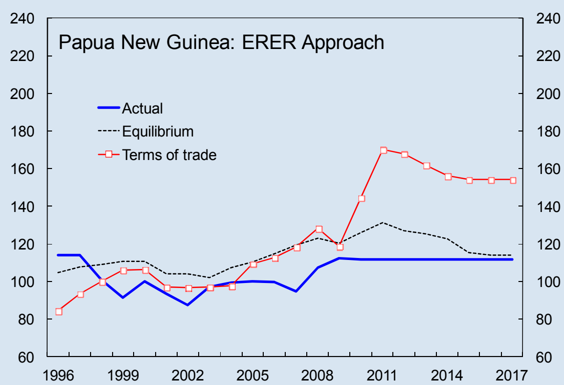
Staff estimates point to an undervaluation of the Kina relative to medium/longer-term fundamentals. Standard CGER methodologies are tailored to advanced and emerging market countries, and should be treated with caution when applied to PNG. To evaluate the distance from medium-term fundamentals, projections for 2017 (when PNG's output gap is expected to close) are used. We use an amended MB approach taking into account the effects of LNG production on the trade balance and conclude that the REER is undervalued by about 20 percent relative to its projected value after LNG production begins. This is consistent with the assumed real exchange rate appreciation by 2015 in the government's 2011 budget. The ERER approach yields only a slight undervaluation. However, it does not account for the structural break in the PNG economy due to LNG production.

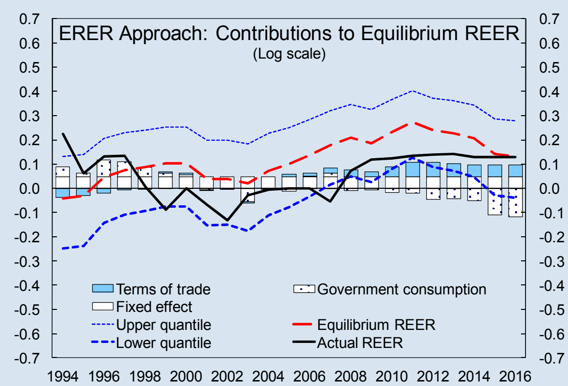
Exchange Rate Assessment: Baseline Results 1/

	CA/GDP		REER
	Norm	Proj. 2/	Overvaluation
MB approach 3/	10.4	14.7	-21.4
ERER approach 4/	…	…	-2.1

Source: Fund staff estimates.
1/ All results are expressed in percent.
2/ Staff projection of the underlying CA/GDP in 2017.
3/ Based on a semi-elasticity of the CA/GDP with respect to the REER of -0.2.
4/ Overvaluation is assessed relative to December 2010.







POLICY THEME #2—SECURING SUSTAINABLE GROWTH AND RAISING LIVING STANDARDS

D. Managing Resource Revenue

29. Broad consensus has been reached for the establishment of a sovereign wealth fund (SWF). The planned SWF consists of a consolidated pool of offshore funds with three coordinated and integrated funds: a savings fund, a stabilization fund, and an infrastructure fund. All mineral revenues are to be automatically deposited, with LNG tax and other mineral and petroleum taxes and dividends allocated to savings and stabilization funds and LNG dividends to the infrastructure fund. Drawdown arrangements are currently under discussion. To oversee its establishment, the government created a Secretaries Committee and interdepartmental working group, chaired by Treasury.

Staff's Views

30. Staff supported the authorities' decision to manage all resource revenues through an SWF. In many countries, such an arrangement has been helpful to manage the volatility of mineral revenues and contain real exchange rate appreciation, improve transparency, accountability, and good governance. Implementation of the Generally Accepted Principles and Practices--Santiago Principles would help overcome the "poor state of accounting and record keeping" reported by the Auditor General.

31. The coordination of drawdown arrangements from three funds will be challenging. Spending should be guided by the absorptive capacity of the economy, the requirements of cyclical stabilization, and intergenerational equity. Treasury and the BPNG will have to play a lead role in determining annual spending limits consistent with the absorptive capacity of the economy and its cyclical position. To ensure consistency, it would be helpful to reach annual Ministerial agreement on overall spending amounts linked to the budget process. The spending limits of the MTFS could serve as a preliminary guidepost for medium-term drawdown limits.

E. Development Strategy

32. The government's new development plan focuses on addressing current supply constraints, while raising the effectiveness of core service delivery. In an important advance, the Medium-Term Development Plan (MTDP) shifts PNG's planning process from expenditure-based to policy-focused, with line agencies made accountable for achieving sector targets (Box 3).

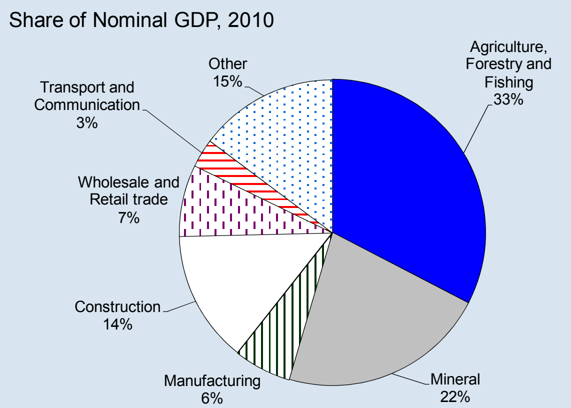
Staff's Views

33. Addressing current supply constraints requires a more supportive environment for the private sector and a revival of the structural reform agenda. The government has taken steps to do this. It is investing considerable resources in land titling and making more land available for economic activity. It is also improving state-owned enterprises' capacity to respond to current strong demand growth. However, more competition needs to be introduced in this sector and overall security improved to attract business.

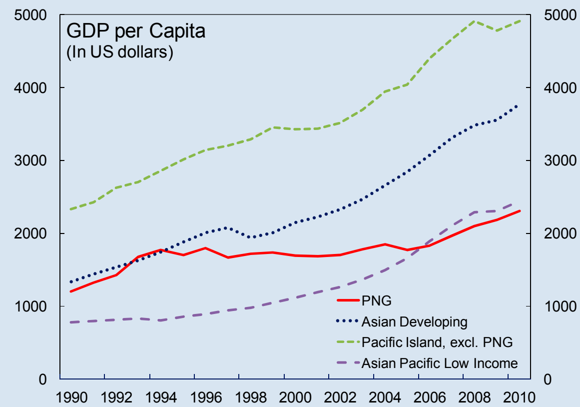
34. Realizing the MTDP's goals will also require marked gains in the effectiveness of public spending. Final spending, especially from trust funds, is often not monitored by central agencies and can differ markedly from budgeted purposes, as audits repeatedly report. The government is addressing these issues, including through investments in stronger financial management, monitoring, and reporting systems. Meanwhile, skilled staff retention is a growing constraint to achieving this agenda.

Figure 5 Papua New Guinea—Income Gap

The economy is rich in commodities, providing opportunities to create jobs and improve essential social services.



However, despite recent solid growth, PNG's income per capita fell behind in the region and inequality needs to be addressed.



Sources: Authorities and IMF APDLISC database.

Box 3 The New Development Plans

The Development Strategic Plan 2010–2030 (DSP) targets broad-based private-sector-led economic growth. To create a level playing field, tax concessions and subsidies are to be reduced.

The DSP envisages Papua New Guinea to become a middle-income country by 2030. This requires an annual average growth rate of about 8½ percent. Main DSP targets are to triple GDP per capita, create two million additional jobs, and convert 20 percent of land into bankable assets. In addition, the DSP sets specific growth targets for key economic sectors.

The Medium-Term Development Plan 2011–2015 (MTDP) identifies seven key priority areas, called enablers. The enablers focus on unlocking land for development; improving law and order; establishing quality economic corridors to link rural populations to markets and services; providing higher and technical education and universal access to basic education; providing key utilities such as electricity, water, and communications; and improving health outcomes.

F. Financial Stability and Development

35. Papua New Guinea's financial sector has weathered the global financial crisis well. The three large banks are mostly funded domestically, and their total deposits have increased by almost 20 percent since 2009. Two of them have well-performing Australian parents; the largest one, Bank of South Pacific, is domestically owned. All three are well capitalized and highly profitable. The banking sector's loan-to-deposit ratio is low at about 49 percent, and its liquidity ratio is high at 57 percent of total assets. Non-performing loans (NPL) fell from 2.7 percent in June 2009 to 1.8 percent of total loans in September 2010. Nonetheless, provisioning almost doubled to over 200 percent, while profitability recovered to pre-crisis levels. Profitability of the largest superannuation fund, which was hit by the global financial markets downturn, has improved by more than 45 percent in 2010. However, 85 percent of the population lacks access to financial services.

Staff's Views

36. The FSAP found the overall financial sector soundness satisfactory. Regulation and supervision has been strengthened. The main recommendations are: complete the set of prudential standards and enhance the available supervisory tools; move to a more risk-based approach in supervision and make compliance with prudential standards compulsory; formalize bank liquidity support arrangements and establish a discount window; reform payment and settlement systems; develop the local-government securities market; and improve access to financial services (Appendix 4).

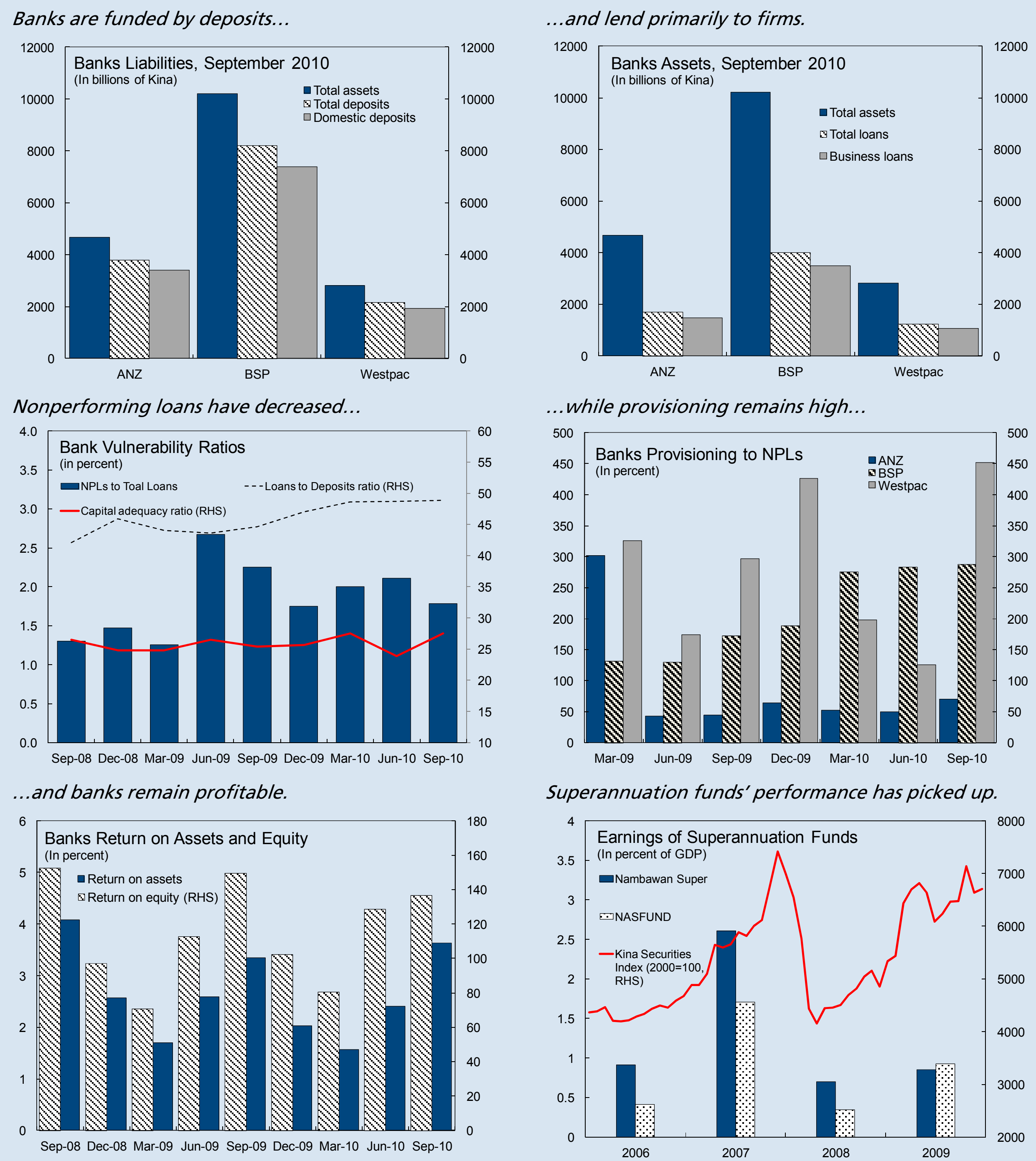
37. Financial institutions are highly exposed to property markets. Banks and Authorized Superannuation Funds (ASF) are vulnerable to corrections in urban property markets, in particular in Port Moresby and Lae. Moreover, it will be important that banks maintain high lending standards as credit demand, associated with the LNG project and the expansion of the mining sector, is likely to rise. Nonetheless, stress-tests, undertaken during the 2010/11 FSAP missions, indicate that the banking system should be able to withstand moderate shocks.

38. The absence of a liquid domestic government debt market and the concentration of bank assets in government securities represent risks to banks' balance sheets. Moreover, the expansion in the mineral sector is likely to spur foreign interest in PNG's bond market and increased integration into the global economy requires new vehicles to manage foreign currency risk and new banking products.

Authorities' Views

39. The authorities noted that financial institutions are taking appropriate steps to lower their exposure to property markets. Financial institutions have responded to higher perceived risk by tightening lending standards rather than raising lending rates. In addition, all ASFs comply with prudential norms and the two largest ones have lowered their housing and property market exposure. In cooperation with multilateral institutions, such as the World Bank, the authorities started a National Payments project to strengthen the clearance and settlement infrastructure.

Figure 6 Papua New Guinea—The Banking Sector



Sources: Bank of Papua New Guinea; International Financial Statistics, and IMF staff calculations.

STAFF APPRAISAL

40. **We commend the authorities for their commitment to a medium-term fiscal framework.** The framework has helped increase macroeconomic stability by insulating the budget from volatility in mineral revenue and reducing public debt to more sustainable levels. However, the slippages in 2009 have shown that the implementation of the MTFS needs to be strengthened.

41. **Tighter fiscal policies during the construction phase of the LNG plant are needed to reduce inflationary pressures.** Reaching Ministers' agreement on a balanced 2011 budget was an appreciable achievement, given the expenditure pressures in a pre-election year. Nevertheless, a tighter fiscal stance is necessary and can be achieved by limiting spending out of trust accounts to well below the 4 percent of GDP limit; using saving opportunities during budget implementation, including windfall mineral revenues; and lowering the assumption of normal mineral revenue to 3 percent until revenues from LNG production commence.

42. **The government's decision to allocate funds to meet its superannuation obligations should be implemented as planned.** A payment schedule for the rest of its arrears would raise policy credibility and put finances in better position to respond to future challenges.

43. **A tighter stance of monetary policy is required to contain inflationary pressures and reduce the risk of higher inflation becoming entrenched in expectations.** Inflation remains high and risks are clearly on the upside. Raising the policy rate well above expected core inflation would provide an important signal. Further increases in the cash reserve requirement and higher CBB rates would be helpful, and further foreign exchange accumulation should be avoided to limit liquidity creation. Moving to a more market-determined exchange rate, would help cushion the impact of large demand shocks, and a market-driven appreciation of the Kina would help reduce inflationary pressures from import prices.

44. **The decision to move all new trust accounts to the BPNG should be implemented fully.** It will give the central bank better control over domestic liquidity and market interest rates and reduce the net cost to the public sector by limiting the need to use central bank bills to remove excess liquidity. The BPNG should be allowed to manage these accounts offshore.

45. **Plans to manage all resource revenues through a sovereign wealth fund are welcome.** It will be important to invest its assets offshore; fully integrate withdrawals into the budget process; and ensure transparency, accountability, and good governance by adopting the internationally accepted Santiago Principles. To effectively achieve development objectives, the SWF needs to be integrated into the macro framework and supported by strong fiscal institutions, such as the MTFS and the Fiscal Responsibility Act.

46. **The projected widening in the current account deficit is largely financed by FDI and is not expected to threaten external stability.** The exchange rate is estimated to be undervalued by 2–20 percent and reserves remain adequate to address potential balance-of-payments needs.

47. **The LNG and other resource projects provide an opportunity to notably raise long-term growth and living standards.** Better social services—in particular health, education, and basic infrastructure—need to be delivered so that the benefits from the mineral boom are more evenly spread and living standards improved for everyone. To achieve higher nonmineral growth it will be essential to better align public spending with policy priorities and reinvigorate the reform process. Improvements to security and the business environment would also yield significant benefits.

48. **The financial sector remains sound.** However, to safeguard financial health, banks should be encouraged to maintain strict lending standards. Furthermore, all financial institutions need to guard against overexposure to the property sector. The FSAP recommendations should be implemented.

49. **Staff recommends the next Article IV consultation be held on the standard 12-month cycle.**

Table 1 Papua New Guinea: Selected Economic and Financial Indicators, 2007–11

Nominal GDP (2009): US$8 billion 1/
Population (2009): 6.3 million
GDP per capita (2009): US$1,272
Quota: SDR 131.6 million

	2007	2008	2009	2010	2011
				Est.	Proj.
Real sector			(Percent change)		
Real GDP growth	7.2	6.6	5.5	7.0	9.0
Mineral	-0.1	-1.4	-1.7	4.3	9.3
Nonmineral	8.1	7.6	6.3	7.3	8.9
CPI (annual average)	0.9	10.7	6.9	6.0	8.4
CPI (end-period)	3.2	11.2	5.7	7.8	9.5
Central government operations			(In percent of GDP)		
Revenue and grants	37.3	32.6	27.5	32.5	33.4
Expenditure and net lending	28.3	30.1	37.1	32.8	32.4
Overall balance (including grants)	9.0	2.5	-9.6	-0.3	1.0
Nonmineral balance 2/	-5.0	-7.4	-13.4	-7.3	-7.7
Gross public debt	33.6	31.7	32.1	26.5	21.9
Domestic	16.9	18.5	19.2	15.8	12.3
External	16.6	13.2	12.9	10.7	9.7
Money and credit (percentage change)			(Percent change)		
Domestic credit	5.6	15.7	37.3	4.7	19.9
Credit to the private sector	34.3	29.5	15.1	17.9	25.0
Broad money	27.8	7.8	21.3	10.0	22.6
Interest rate (182-day T-bills; period average)	4.4	5.9	7.2	6.4	…
Balance of payments			(In millions of U.S. dollars)		
Exports, f.o.b.	4,822	5,817	4,389	5,824	8,298
Of which: Mineral	3,673	4,263	3,403	4,636	6,607
Imports, c.i.f.	-2,629	-3,140	-2,871	-4,455	-5,480
Current account (including grants)	208	808	-649	-2,255	-2,420
(In percent of GDP)	3.3	10.1	-8.0	-23.7	-21.2
Exceptional financing (net)	0.0	0.0	0.0	0.0	0.0
Gross official international reserves	2,087	2,095	2,623	3,092	3,459
(In months of nonmining imports, c.i.f.)	14	11	16	11	10
(In months of goods and services imports)	5	5	7	5	5
Public external debt					
Public external debt-service-ratio (percent of exports) 3/	4	2	3	2	1
Public external debt-to-GDP ratio (in percent) 3/	17	13	13	11	10
Exchange rates					
US$/kina (period-average)	0.337	0.370	0.363	0.375	…
NEER (2000=100, end-period)	77.7	95.0	83.3	78.3	
REER (2000=100, end-period)	98.7	135.2	116.1	113.2	
Nominal GDP (millions of kina)	18,798	21,594	22,208	25,421	31,162

Sources: Papua New Guinea authorities; and IMF staff estimates and projections.
1/ Based on period average exchange rate.
2/ Measured from above the line in the fiscal accounts.
3/ Includes central government, central bank external debt, and statutory authorities.

Table 2 Papua New Guinea: Summary of Central Government Operations, 2008–16

(In percent of GDP)

	2008	2009	2010	2011		2012	2013	2014	2015	2016
			Est.	Budget	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
Revenue and grants	32.6	27.5	32.5	32.3	33.4	31.4	29.5	25.2	17.6	16.9
Revenue	28.0	23.5	27.0	27.0	28.4	27.0	25.4	21.3	14.9	14.5
Tax revenue	26.7	22.4	25.3	25.5	26.6	25.3	24.0	20.5	14.5	14.2
Mineral taxes	9.1	3.1	5.8	5.6	7.4	6.6	5.2	2.1	0.6	0.5
Nonmineral taxes	17.5	19.3	19.5	20.0	19.2	18.7	18.8	18.4	13.9	13.7
Nontax revenue	1.3	1.1	1.7	1.4	1.8	1.6	1.4	0.8	0.4	0.4
Of which: mineral nontax revenue	0.8	0.6	1.2	1.0	1.3	1.2	0.9	0.4	0.1	0.1
Grants	4.6	4.0	5.5	5.3	5.0	4.4	4.1	3.9	2.7	2.4
Total expenditure and net lending	30.1	37.1	32.8	32.3	32.4	31.0	29.9	28.6	21.3	18.4
Recurrent expenditure	17.5	18.8	16.4	18.4	17.8	16.0	16.0	15.6	12.7	12.5
National departments	10.5	10.8	9.7	12.0	11.5	10.0	10.1	10.0	8.5	8.4
Salaries and wages	4.3	4.4	4.2	5.9	5.6	4.5	4.6	4.4	3.2	3.1
Arrears payments	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Goods and services	5.2	5.5	4.6	5.1	5.0	4.7	4.7	4.7	4.7	4.7
Other	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.4	0.4
Provinces	4.0	4.8	4.1	3.9	3.7	3.6	3.8	3.6	2.5	2.4
Salaries and wages	3.1	3.6	3.1	2.7	2.8	2.6	2.7	2.6	1.9	1.8
Goods and services	0.3	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3
Conditional grants	0.5	0.6	0.6	0.6	0.5	0.6	0.7	0.6	0.4	0.3
Statutory authorities	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	0.8	0.8
Interest	1.8	2.0	1.4	1.5	1.4	1.3	1.0	0.9	0.8	0.9
Domestic	1.4	1.8	1.2	1.3	1.0	1.0	0.7	0.7	0.6	0.8
Foreign	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2
Development expenditures and net lending	12.6	18.3	16.4	13.8	14.6	15.0	13.9	12.9	8.6	5.9
Development expenditure	12.6	18.3	16.4	13.9	14.6	15.0	13.9	12.9	8.6	5.9
Foreign financed	5.0	4.4	5.9	6.7	6.0	5.5	5.3	5.1	3.5	3.0
Project grants	4.6	4.0	5.5	5.3	5.0	4.4	4.1	3.9	2.7	2.4
Project concessional loans	0.4	0.4	0.4	1.4	1.0	1.1	1.1	1.2	0.8	0.6
Nonconcessional loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestically funded	7.6	13.9	10.6	7.2	8.6	9.5	8.6	7.8	5.1	2.8
Of which: "Additional Priority Expenditures" 1/	5.3	10.7	3.2	0.0	4.0	4.0	3.6	3.0	1.9	0.0
Net lending	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance (from above the line)	2.5	-9.6	-0.3	0.0	1.0	0.4	-0.4	-3.4	-3.7	-1.4
Residual deficit	1.3	4.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance (from below the line)	3.8	-5.6	0.6	0.0	1.0	0.4	-0.4	-3.4	-3.7	-1.4
Financing	-3.8	5.6	-0.6	0.0	-1.0	-0.4	0.4	3.4	3.7	1.4
External financing (net)	-1.7	-0.4	-0.4	0.6	0.3	0.4	0.5	0.6	0.4	0.2
Disbursements	0.4	0.4	0.4	1.4	1.0	1.1	1.1	1.2	0.8	0.6
Amortization	-2.1	-0.8	-0.8	-0.7	-0.8	-0.7	-0.6	-0.6	-0.4	-0.4
Domestic financing (net)	-2.1	5.9	-0.2	-0.6	-1.3	-0.8	-0.1	2.7	3.3	1.2
Memoranda items:										
Nonmineral overall balance (above the line)	-7.4	-13.4	-7.3	-6.6	-7.7	-7.4	-6.5	-5.9	-4.4	-2.0
Nominal GDP (in millions of kina)	21,594	22,208	25,421	28,718	31,162	36,021	38,771	43,129	64,493	72,779
Trust accounts closing balance	15.0	6.7	7.2	4.5	4.2	3.7	3.4	1.9	0.0	0.0

Sources: Data provided by the Papua New Guinea authorities; and IMF staff estimates.
1/ Includes spending from trust accounts.

Table 3 Papua New Guinea: Balance of Payments, 2008–16

(In millions of U.S. dollars)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
			Est.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
Current account balance	808	-649	-2,255	-2,420	-1,868	-1,078	-787	1,324	2,343
Mineral	1,743	828	797	1,457	1,836	1,826	1,811	4,035	5,188
Nonmineral	-935	-1,477	-3,052	-3,877	-3,704	-2,905	-2,598	-2,712	-2,845
Trade balance	2,677	1,519	1,368	2,817	3,473	3,589	3,421	6,424	7,817
Exports (f.o.b.)	5,817	4,389	5,824	8,298	8,795	8,241	7,924	10,815	12,201
Mineral	4,263	3,403	4,636	6,607	7,097	6,592	6,281	9,207	10,635
Nonmineral	1,555	986	1,187	1,690	1,698	1,649	1,642	1,608	1,565
Imports (c.i.f.)	-3,140	-2,871	-4,455	-5,480	-5,322	-4,652	-4,503	-4,391	-4,383
Mineral	-934	-890	-1,002	-1,180	-1,247	-1,264	-1,311	-1,426	-1,501
Nonmineral	-2,207	-1,981	-3,453	-4,300	-4,075	-3,388	-3,191	-2,965	-2,882
Services	-1,388	-1,655	-2,291	-2,744	-2,811	-2,555	-2,342	-2,311	-2,039
Income	-644	-625	-1,610	-2,782	-2,769	-2,300	-2,031	-2,941	-3,551
Current Transfers	163	112	277	288	238	187	166	151	116
Official	130	318	521	568	548	519	522	519	494
Private	33	-207	-244	-280	-310	-332	-357	-368	-379
Capital and financial account balance	-820	1,162	2,724	2,787	2,243	1,435	1,153	1,068	672
Direct investment	-31	422	1,803	1,935	1,494	862	629	506	326
Other investment	-789	740	921	852	749	573	524	562	346
Medium- and long-term loan	-49	58	121	273	340	275	320	485	351
Official (net)	-65	-59	-33	32	54	63	82	78	51
Private capital flows (net)	16	117	154	241	285	212	238	406	299
Commercial banks	-110	98	89	76	53	45	25	-50	-95
Other	-631	583	710	503	357	253	179	127	90
Net errors and omissions	20	15	0	0	0	0	0	0	0
Overall balance	8	529	469	367	375	356	365	2,392	3,014
Financing	-11	-333	-469	-367	-375	-356	-365	-2,392	-3,014
Reserve assets	-8	-529	-469	-367	-375	-356	-365	-2,392	-3,014
Use of IMF credit	0	0	0	0	0	0	0	0	0
Other foreign liabilities	-2	196	0	0	0	0	0	0	0
Memorandum items:									
Current account (in percent of GDP)	10.1	-8.0	-23.7	-21.2	-15.2	-8.6	-5.9	6.9	11.4
Mineral	21.7	10.2	8.4	12.8	14.9	14.6	13.6	21.1	25.2
Nonmineral	-11.7	-18.3	-32.1	-34.0	-30.0	-23.2	-19.5	-14.2	-13.8
Net international reserves (end-year)									
In millions of U.S. dollars	2,093	2,426	2,895	3,262	3,637	3,993	4,359	6,750	9,764
Gross official reserves (end-year)									
In millions of U.S. dollars	2,095	2,623	3,092	3,459	3,834	4,190	4,556	6,947	9,962
In months of imports of goods and services	5.1	6.7	5.3	4.9	5.5	6.7	7.7	11.9	17.7
Public external debt-service-exports ratio (in percent) 1/	2.0	2.6	1.8	1.3	1.2	1.3	1.4	1.0	0.9
Public external debt-GDP ratio (in percent) 1/	13.2	12.9	10.7	9.7	9.4	9.7	9.7	7.2	6.9

Sources: Data provided by the Papua New Guinea authorities; and IMF staff estimates and projections.

1/ Public external debt includes central government, central bank external debt, and statutory authorities.

Table 4 Papua New Guinea: Summary Accounts of the Depository Corporations, 2008–11

	2008	2009	2010	2011
				Proj.
Bank of Papua New Guinea	(In millions of kina; end of period)			
Net foreign assets	5,566	6,554	7,652	9,249
Foreign assets	5,608	7,091	8,170	9,808
Foreign liabilities	42	536	518	559
Net domestic assets	-3,946	-4,741	-5,636	-6,991
Domestic credit	-1,774	-220	-639	-475
Net credit to government	-1,827	-261	1,385	1,300
Claims	107	333	367	406
Central government deposits	-1,934	-593	1,019	894
Credit to other sectors	53	40	13	13
Other items, net	-2,172	-4,520	-4,997	-6,517
Of which: Central Bank Securities (CBBs)	2,136	4,117	4,594	5,632
Reserve money	1,620	1,814	2,016	2,258
Currency in circulation	850	1,002	1,193	1,462
Deposits of other depository corporations	767	808	810	783
Required reserves	303	369	514	635
Excess reserves	464	440	296	148
Other deposits	3	3	13	13
Depository Corporations Survey	(In millions of kina; end of period)			
Net foreign assets	6,147	7,924	8,961	10,854
Net domestic assets	3,553	3,846	3,981	5,011
Domestic credit	4,854	6,665	6,979	8,370
Net credit to central government	-400	574	-205	-559
Claims on other sectors	5,254	6,091	7,184	8,929
Claims on the private sector	5,128	5,902	6,959	8,697
Other items, net	-1,301	-2,820	-2,998	-3,359
Broad money	9,700	11,770	12,942	15,865
Narrow money	5,520	6,233	7,703	9,997
Currency outside other depository corporations	676	789	954	1,069
Demand deposits	4,844	5,444	6,749	8,928
Quasi money	4,181	5,537	5,239	5,867
	(Annual percentage change)			
Net foreign assets	-12.6	28.9	13.1	21.1
Net domestic assets	81.0	8.2	3.5	25.9
Net domestic credit	15.7	37.3	4.7	19.9
Of which: Private sector	29.5	15.1	17.9	25.0
Broad money	7.8	21.3	10.0	22.6
Memorandum items:				
Reserve money (percentage change)	-12.0	11.9	11.1	12.0
Gross international reserves (in millions of US dollars)	2,095	2,623	3,092	3,459
Nominal nonmineral GDP/Broad money	1.6	1.5	1.5	1.5

Sources: Data provided by the Papua New Guinea authorities; and IMF staff estimates and projections.

Table 5 Papua New Guinea: Indicators of External Vulnerability, 2007–11

(In percent of GDP, unless otherwise indicated)

	2007	2008	2009	2010	2011
				Est.	Proj.
Financial indicators					
Gross public debt 1/ 2/	33.6	31.7	32.1	26.5	21.9
Broad money (percent change, 12-month basis)	27.8	7.8	21.3	10.0	22.6
Private sector credit (percent change, 12 month basis)	34.3	29.5	15.1	17.9	25.0
Interest rate (182-day T-bills; period average)	4.4	5.9	7.2	6.4	…
External indicators					
Exports (percent change, 12-month basis in U.S. dollars)	9.9	20.6	-24.5	32.7	42.5
Imports (percent change, 12-month basis in U.S. dollars)	32.1	19.4	-8.6	55.2	23.0
Current account balance	3.3	10.1	-8.0	-23.7	-21.2
Capital and financial account balance (millions of U.S. dollars)	314	-820	1,162	2,724	2,787
Of which: Inward foreign direct investment	462	-31	422	1,803	1,935
Gross official reserves (millions of U.S. dollars)	2,087	2,095	2,623	3,092	3,459
Central Bank short-term foreign liabilities (millions of U.S. dollars)	4	1	2	3	197
Commerical bank foreign assets (millions of U.S. dollars)	458	264	578	577	659
Commerical bank foreign liabilities (millions of U.S. dollars)	48	47	71	81	92
Gross official reserves (months of nonmineral imports, c.i.f.)	13.6	11.4	15.9	10.7	9.7
Broad money to gross reserves (ratio)	1.5	1.7	1.7	1.6	1.6
Total short-term external debt to reserves (percent) 3/	2.3	2.2	2.7	2.6	2.7
Public external debt to GDP ratio (in percent)	16.6	13.2	12.9	10.7	9.7
Exchange rate (per U.S. dollar; period average)	3.0	2.7	2.8	2.7	…
Financial market indicators					
Foreign currency long-term government debt rating 1/					
Standard & Poors	B+	B+	B+	B+	…

Sources: Department of Treasury; Bank of Papua New Guinea; and IMF staff estimates and projections.

1/ End of period.

2/ Includes central government, central bank external debt, and statutory authorities.

3/ Covers only banking system short-term external debt.

Table 6 Papua New Guinea: Medium-Term Scenario, 2008–16

	2008	2009	2010	2011	2012	2013	2014	2015	2016
			Est.			Projections			
Growth and prices (change in percent)									
Real GDP	6.6	5.5	7.0	9.0	5.5	2.0	4.0	20.0	5.0
Mineral	-1.4	-1.7	4.3	9.3	13.8	-3.2	15.3	151.1	7.3
Nonmineral	7.6	6.3	7.3	8.9	4.6	2.6	2.9	4.8	4.3
CPI (period average)	10.7	6.9	6.0	8.4	8.7	7.5	6.5	6.3	6.8
CPI (end-period)	11.2	5.7	7.8	9.5	8.0	7.0	6.0	6.5	7.0
Central government operations (in percent of GDP)									
Total revenue and grants	32.6	27.5	32.5	33.4	31.4	29.5	25.2	17.6	16.9
Total revenue	28.0	23.5	27.0	28.4	27.0	25.4	21.3	14.9	14.5
Of which: Mineral tax revenue	9.1	3.1	5.8	7.4	6.6	5.2	2.1	0.6	0.5
Grants	4.6	4.0	5.5	5.0	4.4	4.1	3.9	2.7	2.4
Total expenditure	30.1	37.1	32.8	32.4	31.0	29.9	28.6	21.3	18.4
Primary balance 1/	5.6	-3.6	2.0	2.4	1.7	0.6	-2.4	-2.8	-0.5
Nonmineral balance 2/	-7.4	-13.4	-7.3	-7.7	-7.4	-6.5	-5.9	-4.4	-2.0
Overall balance 1/	3.8	-5.6	0.6	1.0	0.4	-0.4	-3.4	-3.7	-1.4
Domestic financing (net) 3/	-2.1	5.9	-0.2	-1.3	-0.8	-0.1	2.7	3.3	1.2
Foreign financing (net)	-1.7	-0.4	-0.4	0.3	0.4	0.5	0.6	0.4	0.2
Gross public debt (in percent of GDP) 4/	31.7	32.1	26.5	21.9	18.3	18.3	19.8	14.5	13.8
Domestic	18.5	19.2	15.8	12.3	9.0	8.6	10.1	7.3	6.8
External	13.2	12.9	10.7	9.7	9.4	9.7	9.7	7.2	6.9
Balance of payments (in millions of U.S. dollars)									
Exports, f.o.b.	5,817	4,389	5,824	8,298	8,795	8,241	7,924	10,815	12,201
Of which: Mineral	4,263	3,403	4,636	6,607	7,097	6,592	6,281	9,207	10,635
Imports, c.i.f.	-3,140	-2,871	-4,455	-5,480	-5,322	-4,652	-4,503	-4,391	-4,383
Current account	808	-649	-2,255	-2,420	-1,868	-1,078	-787	1,324	2,343
(In percent of GDP)	10.1	-8.0	-23.7	-21.2	-15.2	-8.6	-5.9	6.9	11.4
Overall balance (including exceptional financing)	8	529	469	367	375	356	365	2,392	3,014
Net official reserves (in millions of U.S. dollars)	2,093	2,426	2,895	3,262	3,637	3,993	4,359	6,750	9,764
(In months of goods and services imports, c.i.f.)	5.1	6.2	5.0	4.6	5.2	6.4	7.3	11.5	17.4
(In months of nonmining imports, c.i.f.)	11.4	14.7	10.1	9.1	10.7	14.1	16.4	27.3	40.7
Public external debt service-export ratio (in percent) 3/	2.0	2.6	1.8	1.3	1.2	1.3	1.4	1.0	0.9
Memorandum items:									
Nominal GDP (in millions of U.S. dollars)	7,997	8,060	9,520	11,401	12,329	12,543	13,321	19,091	20,568
Assumed commodity prices: 5/									
Gold (U.S. dollars per ounce)	872	973	1,225	1,427	1,446	1,478	1,530	1,596	1,670
Copper (U.S. dollars per ton)	6,963	5,165	7,538	9,883	9,838	9,330	8,330	7,830	7,830
Oil (U.S. dollars per barrel)	97	62	79	107	108	106	105	105	106

Sources: Department of Treasury; Bank of Papua New Guinea; and IMF staff estimates and projections.
1/ Measured from below the line in the fiscal accounts.
2/ Measured from above the line in the fiscal accounts.
3/ Includes changes in check float.
4/ Includes central government, central bank external debt, and statutory authorities.
5/ March 2011 WEO projections.

Table 7 Papua New Guinea: Millennium Development Goals Progress, 1990–2009

	1990	1995	2000	2005	2009
Goal 1: Eradicate extreme poverty and hunger					
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than $ 1 a day					
Poverty gap at $1.25 a day (PPP) (%)	..	12	..	..	..
Poverty headcount ratio at $1.25 a day (PPP) (% of population)	..	36	..	..	..
Income share held by lowest 20%	..	5	..	..	..
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people					
Employment to population ratio, 15+, total (%)	70	69	70	70	70
Employment to population ratio, ages 15-24, total (%)	57	53	55	54	54
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger					
Malnutrition prevalence, weight for age (% of children under 5)	..	..	..	18	..
Goal 2: Achieve universal primary education					
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling					
Literacy rate, youth female (% of females ages 15-24)	..	..	64	..	69
Literacy rate, youth male (% of males ages 15-24)	..	..	69	..	65
Primary completion rate, total (% of relevant age group)	48	52	..	..	..
Total enrollment, primary (% net)	65	..	..	..	..
Goal 3: Promote gender equality and empower women					
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015					
Proportion of seats held by women in national parliaments (%)	0	0	2	1	1
Ratio of female to male enrollments in tertiary education	..	43	55	..	..
Ratio of female to male primary enrollment	84	87	86	84	..
Ratio of female to male secondary enrollment	60	67	..	..	..
Share of women employed in the nonagricultural sector (% of total nonagricultural employment)	27.9	..	32.1	..	..
Goal 4: Reduce child mortality					
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate					
Immunization, measles (% of children ages 12-23 months)	67	42	62	63	58
Mortality rate, infant (per 1,000 live births)	67	61	57	54	52
Mortality rate, under-5 (per 1,000)	91	82	77	72	68
Goal 5: Improve maternal health					
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio					
Maternal mortality ratio (modeled estimate, per 100,000 live births)	340	300	290	270	250
Births attended by skilled health staff (% of total)	..	42	41	53	..
Target 5.B: Achieve, by 2015, universal access to reproductive health					
Contraceptive prevalence (% of women ages 15-49)	..	26	..	32	..
Adolescent fertility rate (births per 1,000 women ages 15-19)	..	..	80	63	54
Pregnant women receiving prenatal care (%)	..	78	..	79	..
Goal 6: Combat HIV/AIDS, malaria, and other diseases					
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS					
Prevalence of HIV, female (% ages 15-24)	..	..	..	0.7	0.7
Prevalence of HIV, male (% ages 15-24)	..	..	..	0.6	0.6
Prevalence of HIV, total (% of population ages 15-49)	..	0.1	0.3	1	1.5
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases					
Incidence of tuberculosis (per 100,000 people)	250	250	250	250	250
Tuberculosis cases detection rate (all forms)	24	68	78	82	85
Goal 7: Ensure environmental sustainability					
Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources					
Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss					
Forest area (% of land area)	69.6	68.1	66.5	65	64.4
CO2 emissions (kg per PPP $ of GDP)	0	0	0	0	0
CO2 emissions (metric tons per capita)	1	0	0	1	1
Marine protected areas, (% of surface area)	..	..	..	..	0
Terrestrial protected areas (% of total surface area)	..	..	..	..	10
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation					
Improved sanitation facilities (% of population with access)	47	47	46	47	45
Improved water source (% of population with access)	41	41	39	41	40
Goal 8: Develop a global partnership for development					
Target 8: Various					
Net ODA received per capita (current US$)	100	79	51	44	46
Debt service (PPG and IMF only, % of exports, excluding workers' remittances)	18	10	8	6	..
Internet users (per 100 people)	0	0	0.8	1.7	1.8
Mobile cellular subscriptions (per 100 people)	0	0	0	1	9
Telephone lines (per 100 people)	1	1	1	1	1
Other					
Fertility rate, total (births per woman)	5	5	5	4	4
GNI per capita, Atlas method (current US$)	830	1040	620	680	1180
GNI, Atlas method (current US$) (billions)	3.4	4.9	3.3	4.2	7.9
Gross capital formation (% of GDP)	24.4	21.9	21.9	19.8	19.9
Life expectancy at birth, total (years)	55	56	58	60	61
Literacy rate, adult total (% of people ages 15 and above)	..	..	57	..	60
Population, total (millions)	4.1	4.7	5.4	6.1	6.4
Trade (% of GDP)	89.6	104.7	115.4	137.7	115.1

Source: World Development Indicators database, 2010.

Appendix 1 Papua New Guinea—Authorities' Response to Recent Fund Policy Advice[1]

Fund Recommendations	Policy Actions
Monetary and Exchange Rate Policy	
Monetary policy needs to be focused on emerging inflation pressures. The central bank should be tightening monetary policy now with a view to achieving real lending rates of around 6 percent.	The central bank kept the policy rate stable throughout the year at 7 percent.
Fiscal Policy	
Delaying some infrastructure spending would ease overall demand pressures and help ensure that good value is achieved from this spending.	Spending outside the budget fell sharply, compared to 2009. It is expected to be under the MTFS threshold of 4 percent of GDP.
It would be prudent to lower the assumption of normal mineral revenue to 3 percent of GDP between now and 2014, when LNG production should commence.	Modification of the MTFS did not include the revision of the normal mineral revenue threshold.
Closer coordination of monetary and fiscal policy is desirable. Public trust accounts should be moved to the BPNG and procedures to automatically deposit above normal mineral revenue with the central bank should be introduced.	Fiscal and monetary authorities meet regularly on a monthly basis. The authorities decided to open all new trust accounts at the BPNG.
The SWF needs to be integrated into the macro framework and thereby supported by other fiscal institutions, such as the MTFS and the Fiscal Responsibility Act.	The authorities plan to review the current MTFS in 2011. They have indicated that the new MTFS will incorporate new guiding principles governing the revenue from SWF.
Financial Sector Policy	
Banks should be encouraged to maintain strict lending standards as credit demand increases in line with opportunities associated with the LNG projects. Furthermore, all financial institutions need to guard against overexposure to the property sector that could become significantly overvalued during the LNG construction phase.	NPLs have decreased, while provisioning remains high. Lending rates have increased little. All commercial banks remain well capitalized and profitable. Backward looking financial soundness indicators are all well above the prudential norms set by the BPNG.
Structural Reforms	
The best way forward is a financing fund that directs all public spending through the budget, thereby enhancing macroeconomic stabilization and helping to ensure high quality spending aligned with development objectives. To minimize the potential for currency appreciation that would undermine the welfare of rural populations that depends on agriculture exports, the fund's resources should be invested offshore.	The Government has decided to establish an SWF consisting of a consolidated pool of three offshore funds: a stabilization, savings, and infrastructure fund. All expenditures are to go through the budget process.

Source: IMF staff.

[1] Advice from the 2010 Article IV Consultation.

Appendix 2 Papua New Guinea—Land Reform[1]

Ninety-seven percent of total land in PNG is held under customary tenure, while only 3 percent is under formal tenure, mostly owned by the State. Poor administration and an inadequate legal framework have prohibited productive use of both customary land and alienated land.[2] The government's development strategies recognize the need to implement appropriately designed land reforms to ensure that land is available for development. Past land reform initiatives in PNG have, however, largely failed. There is strong public resistance due to concerns that land reform will result in breakdown of traditional social safety mechanisms provided by communal ownership of land. Customary land supports more than 85 percent of the national population.

The National Land Development Program (NLDP) was launched in 2007 and the PNG parliament unanimously passed two laws in 2009 aimed at mobilizing land for development. The guiding principles underlying this legislation were that the customary ownership of the land was never to be lost but remain with the traditional landowners, and that any system of titling was as good as a state title. The first principle was demanded by PNG customary landowners and the latter by financial institutions.

Despite some progress, the implementation of the NLDP has generally been slow and its successful implementation remains a significant challenge. The Office of Urbanization is implementing pilot project areas in different parts of the country to accommodate urban expansion of cities and towns on land currently held under customary tenure using the new laws. To maximize chances of success the government must remain committed to a nationally-owned reform process that is transparent and inclusive and engage in broad participatory consultations that allow for full understanding of stakeholder interests and incentives.

[1] This appendix draws heavily from Chapter 3 of "The Political Economy of Economic Reform in the Pacific," Yala (2010).
[2] Papua New Guinea Development Strategic Plan 2010–2030.

Appendix 3 Papua New Guinea—Debt Sustainability Analysis[1]

Papua New Guinea (PNG) is assessed using the low-income country debt sustainability analysis (LIC DSA).[2] While PNG remains at a moderate risk of debt distress, public debt sustainability has improved compared to the 2010 DSA assessment because of a stronger growth outlook. Under the baseline scenario, all external debt sustainability indicators remain well below their applicable thresholds. Stress tests indicate that the threshold for the present value of external public debt to GDP is breached only if prices of commodity exports in 2011–2013 are substantially below WEO forecasts and the government borrows to finance domestic consumption. Overall public debt should continue its downward path under the baseline. However, contingent liabilities related to the LNG project, arrears to public pension funds, and other domestic liabilities would delay this long-term adjustment. Substantial deterioration in the primary balance would harm PNG's debt performance.

I. Background

PNG's public and publicly guaranteed (PPG) debt levels have fallen dramatically over the past decade. Total public debt declined from 70 to 26 percent of GDP from 2001 to end-2010 (Appendix Table 1). External public debt fell from 50 to 11 percent of GDP during this period (Appendix Table 3a). Multilateral lenders such as the World Bank and the AsDB account for around 75 percent of PPG external debt, while Japan and Australia are the largest of the bilateral creditors. Private sector external debt at end-2010 is estimated at 13 percent of GDP.

II. Economic Outlook and Underlying DSA Assumptions

PNG weathered the global financial crisis well due to a large fiscal stimulus, strong domestic demand due to LNG project construction activities, and rebounding commodity prices. Real GDP growth was 7 percent in 2010 after a modest slowdown in 2009, and is projected to accelerate in 2011. PNG's terms of trade and export earnings recovered dramatically from the lows of 2009, and both are projected to improve strongly in 2011 under the baseline scenario. Foreign reserves increased to around US$3.2 billion by March 2011, reflecting large and continuing financial inflows associated with the injection of equity and drawdown of loan funds for the financing of the LNG project by its partners. As indicated in the previous DSA,[3] PNG is vulnerable to external demand and growth shocks. Due to rising commodity prices and strong growth, unfavorable public debt dynamics did not materialize in 2010.

Under the baseline scenario, commodity prices will remain high over the medium term while real GDP will move in line with the LNG sector. During the construction phase of the LNG project, elevated levels of domestic demand and the current account deficit will continue. With the start of LNG production in 2015, real GDP is projected to jump by 20 percent and the current account will move into a large and persistent surplus. Appendix Box 1 summarizes the medium-term macroeconomic framework underlying the DSA.

III. External Debt Sustainability Analysis

Over the projection period, all baseline PPG external debt and debt service indicators stay well below the policy-dependent debt burden thresholds (Appendix Table 3b and Appendix Figure 1). The PV of PPG external debt as a percentage of GDP is on a declining path and stays under 10 percent in the medium term, far below the 30 percent threshold. The PVs of PPG external debt-to-exports and debt-to-revenue ratios are also expected to stay below their applicable thresholds. Since additional financing needs for the LNG project and the current account deficit would be met with projected large FDI inflows, there would be no extra debt burden

[1] Since Papua New Guinea is an IBRD/IDA blend country, this DSA is prepared by Fund staff in consultation with the World Bank and the Asian Development Bank (AsDB) under the IMF-WB DSA framework for Low-Income Countries. The fiscal year of Papua New Guinea is the calendar year.

[2] Papua New Guinea is rated by the World Bank as a weak performer for its policies and institutions for the purposes of the IMF-WB low-income country DSA framework. Hence the applicable thresholds for this category for external public debt are: 30 percent for the present value (PV) of debt-to-GDP ratio; 100 percent for the PV of debt-to-exports ratio, 200 percent for the PV of debt-to-revenue ratio, 15 percent for the debt service-to-exports ratio, and 25 percent for the debt service-to-revenue ratio.

[3] See Papua New Guinea: 2010 Article IV Consultation, IMF Staff Report 10/164.

created. After 2015, the external debt burden is expected to fall even faster due to the projected large increase in exports and revenue from LNG production.

Policy-Based PPG External Debt Burden Thresholds for PNG				
			PNG's ratios	
	Thresholds	2010	2011-16	2017-31
PV of debt in percent of:				
GDP	30	11.1	8.5	5.4
Exports	100	17.5	12.7	11.6
Revenues	200	41.2	39.6	34.5
Debt service in percent of:				
Exports	15	1.8	1.2	0.9
Revenues	25	4.1	3.7	2.6

External debt sustainability is maintained under an array of possible stress tests, but would be threatened by poor fiscal policy in response to a large terms of trade shock (Appendix Table 3b). Consistent with WEO commodity price forecasts, the baseline scenario predicts PNG's terms of trade to improve in 2011 before settling at a permanently high level. This, combined with the boost from LNG production, makes PNG resilient to a wide range of GDP growth and depreciation shocks. If we instead use the PNG authorities' more conservative estimates for export prices over 2011–2013,[4] and allow the government to borrow to finance the baseline levels of real consumption and imports (contrary to their stated fiscal strategy), then the PV of PPG external debt breaches the threshold of 30 percent of GDP. The price of gold is the most important price for external sustainability before LNG production kicks in.

Delays to the LNG project could generate adverse debt dynamics, even if PPG external debt indicators remain within the thresholds. While it is unrealistic for the LNG project to halt completely, delays to the project would slow down GDP growth and worsen PNG's debt ratios. The historical scenario charts in Appendix Figure 1 can be interpreted as representing PNG's debt dynamics in the absence of LNG construction and production, and without its associated liabilities, assuming that historical levels of real GDP growth are maintained.

IV. Public Debt Sustainability Analysis[5]

In the baseline scenario, PNG's public debt ratio will continue its downward path over the medium and long term (Appendix Table 1 and Appendix Figure 2). This trend is aided by high commodity prices, rapid real GDP growth and the implementation of the authorities' Medium Term Debt Strategy. The public debt-to-GDP ratio is forecast to decrease over the projection period as long as windfall revenues are saved during years of booming commodity prices. Provided these policies are in place, the PV of public sector debt will decline from 27 percent of GDP in 2010 to 13 percent of GDP in 2016 and to 7 percent of GDP by 2031.

Economic growth and saving of commodity tax revenues are the key factors for the projected public debt path as shown in alternative scenarios and bound tests (Appendix Table 2). The public debt-to-GDP ratio would rise to 30 percent in 2031 if there is a negative shock to real GDP growth in 2012–13 with permanently lower revenues and unchanged expenditures until 2031.[6] Keeping the primary fiscal surplus at 2.3 percent from 2011 through 2031 instead of moving into deficits over the medium term as in the baseline would result in the PV of the public debt-to-GDP ratio falling to zero by 2016. This scenario emphasizes the

[4] The stress test uses authorities' prices for gold, copper and oil only. This amounts to an average negative shock to export values of 22 percent relative to the baseline for each of the three years.

[5] Public debt includes domestic central government, external public, and publicly guaranteed debt.

[6] This is a temporary shock to GDP growth, so that the growth rates during 2012–13 are set to the historical average minus one standard deviation. Another permanent GDP growth shock, which could bring the PV of the debt-to-GDP ratio to 31 percent in 2031, is defined as the baseline GDP growth rate minus one standard deviation divided by the square root of the length of the projection period.

sensitivity of the public debt outlook to saving of windfall commodity revenues. Substantial deterioration of the primary balance in future budgets relative to the baseline would negatively affect debt sustainability.

Realization of contingent liabilities related to the LNG project, arrears to public pension funds, and other domestic liabilities would delay the downward trend in public debt ratios. The government's unfunded superannuation liabilities, estimated to be 7 percent of GDP by end-2010, continue to grow, especially given the decision in the 2009 and 2010 budgets not to fully fund the central government's 8.4 percent employer contributions. The government should develop a firm payment schedule for these unfunded liabilities. Contingent liabilities related to the LNG project are estimated to be about 7 percent of GDP in 2015.[7] Although information is limited, attention should be given to the government's possible need to backstop SOE borrowing.[8] Should these factors materialize, unfavorable debt dynamics would not undermine public debt sustainability, but would substantially delay fiscal consolidation (Appendix Table 2 and Appendix Figure 2).[9]

V. Conclusion

PNG remains at moderate risk of debt distress, but PPG external debt sustainability has substantially improved as a result of high commodity prices and upcoming LNG production. The baseline scenario indicates that all external PPG debt burden indicators stay well below their indicative thresholds. External debt sustainability remains resilient to most stress tests, but would be threatened by a large negative terms of trade shock coupled with a poor fiscal response.

Public debt sustainability is sensitive to growth shocks and saving of windfall revenues over the longer term to pay down the debt. The government needs to carefully consider the risk of accumulating public liabilities until LNG taxation revenues are realized. Despite recent changes to the Medium Term Fiscal Strategy to allow 100 percent of windfall revenues to be used for public investment, it would be advisable for the authorities to use some portion of such gains to pay down high interest rate public debt. This would insulate the economy from adverse debt dynamics after possible negative growth shocks. One-off realizations of contingent liabilities would delay the paydown of government public debt, but would not generate unsustainable debt dynamics.

[7] These liabilities arise from the issue of exchangeable bonds by the PNG government to finance its equity participation (in 2009) and its completion guarantee for debt financing (by 2015). Under the scheme, the creditor acquired exchangeable bonds, amounting to US$1.1 billion, with the option to exchange the bonds for equities in the Oil Search Company. Under the completion guarantee, if the project fails, the government may have to pay up to US$2 billion to the creditor.

[8] From 2008 Article IV DSA estimates based on end-2007 financial statements of nine SOEs, contingent liabilities related to SOEs amount to about 2.5 percent of GDP. Off-balance sheet liabilities, which also may be significant, are not considered. Improving the financial data of SOEs, especially related to contingent liabilities, would help authorities get a better picture of public debt. Staff is supportive of government intentions to move toward a whole-of-government debt stock approach.

[9] The alternative scenario (All Other Liabilities: Pension, SOEs, and LNG contingent liabilities) assumes that pension and SOEs liabilities are to be covered in the 2012 budget (total about 8 percent of 2012 GDP) and all LNG contingent liabilities will materialize in 2015 (about 7 percent of GDP).

Appendix Box 1 Macroeconomic Assumptions Underlying the DSA

- **Real GDP growth** is projected to be 8 percent on average over the medium term, above the historical average of 4 percent, and slow gradually to 3–4 percent in the long run. In the medium term growth in the LNG and nonmineral sectors will offset the decline in copper and petroleum production.

- Construction of the **LNG project** will be finished and production and exports are expected to start in 2015, with a maximum capacity of 6.6 million tons of LNG produced per annum. LNG production is estimated to raise the level of real GDP by about 20 percent in 2015. However, accounting for substantial income outflows, the LNG project is expected to increase annual GNI by about 8 percent.

- **Inflation** is projected to rise to 9 percent in the near term due to increasing domestic demand and near-term capacity constraints, while stabilizing at around 4 percent in the long run.

- The **current account** (including grants) is estimated to be in deficit in 2010 and the deficit is expected to remain sizeable until 2015, primarily reflecting the strong import growth during the construction phase of the LNG project. FDI inflows from foreign shareholders are projected to increase substantially and finance most of the imports.

- The **grant element of loans** is expected to decline. As per capita income rises, the share of external financing provided on concessional terms is expected to decline over the projection period.[1]

- The **primary fiscal balance** is projected to be in surplus of 2.3 percent of GDP in 2011 accounting for spending from the trust accounts. In the medium term primary deficits are anticipated, but these turn into surpluses over the long run as LNG tax revenues are realized.

[1] Grant-equivalent financing (in percent of GDP) decreases over time. From 2016 onwards, the majority of new AsDB disbursements are through OCR facilities, which carry a higher interest rate than ADF loans.

Appendix Table 1 Papua New Guinea: Public Sector Debt Sustainability Framework, Baseline Scenario, 2008–2031

(In percent of GDP, unless otherwise indicated)

	Actual 2008	2009	2010	Average 5/	Standard Deviation 5/	Estimate 2011	Projections 2012	2013	2014	2015	2016	2011-16 Average	2021	2031	2017-31 Average
Public sector debt 1/	31.7	32.1	26.5			21.9	18.3	18.3	19.8	14.5	13.8		10.9	8.1	
o/w foreign-currency denominated	13.2	12.9	10.7			9.7	9.4	9.7	9.7	7.2	6.9		6.4	5.6	
Change in public sector debt	-2.3	0.3	-5.6			-4.6	-3.6	0.0	1.5	-5.3	-0.7		-0.3	-0.3	
Identified debt-creating flows	-10.5	8.9	-4.0			-5.0	-2.7	-0.6	1.9	-1.4	0.1		-2.3	-0.6	
Primary deficit	-6.9	7.5	-1.2	-3.4	5.2	-2.3	-1.6	-0.6	2.4	2.9	0.5	0.2	-2.2	-0.5	-0.9
Revenue and grants	32.3	27.5	32.5			33.4	31.4	29.5	25.2	17.6	16.9		18.5	16.5	
of which: grants	5.1	4.0	5.5			5.0	4.4	4.1	3.9	2.7	2.4		1.8	1.1	
Primary (noninterest) expenditure	25.4	35.0	31.3			31.1	29.8	28.9	27.7	20.5	17.4		16.3	16.0	
Automatic debt dynamics	-3.6	1.4	-2.8			-2.7	-1.1	0.0	-0.5	-4.3	-0.4		0.0	-0.1	
Contribution from interest rate/growth differential	-1.7	0.7	-2.0			-2.7	-1.1	0.0	-0.5	-4.3	-0.4		0.0	-0.1	
of which: contribution from average real interest rate	0.4	2.3	0.1			-0.5	0.0	0.3	0.2	-1.0	0.3		0.3	0.2	
of which: contribution from real GDP growth	-2.1	-1.6	-2.1			-2.2	-1.1	-0.4	-0.7	-3.3	-0.7		-0.3	-0.2	
Contribution from real exchange rate depreciation	-1.9	0.7	-0.8			0.0	0.0	0.0	0.0	0.0	0.0		...	...	
Other identified debt-creating flows	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	8.2	-8.5	-1.6			0.4	-0.9	0.6	-0.4	-3.9	-0.9		2.0	0.3	
Other Sustainability Indicators															
PV of public sector debt	...	...	26.9			22.1	18.3	18.0	19.3	14.0	13.2		10.1	7.3	
o/w foreign-currency denominated	...	...	11.1			9.8	9.3	9.4	9.2	6.7	6.4		5.7	4.8	
o/w external	...	...	11.1			9.8	9.3	9.4	9.2	6.7	6.4		5.7	4.8	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	1.3	17.7	8.1			4.3	3.2	2.2	5.3	6.5	4.5		0.6	1.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	…	…	82.8			66.2	58.1	61.1	76.5	79.4	78.1		54.8	44.4	
PV of public sector debt-to-revenue ratio (in percent)	…	…	99.5			77.9	67.7	71.0	90.6	93.8	91.0		60.5	47.5	
o/w external 3/	…	…	41.2			34.7	34.4	36.9	43.0	44.8	43.9		33.9	30.9	
Debt service-to-revenue and grants ratio (in percent) 4/	15.3	14.8	9.8			8.2	8.1	7.6	8.2	9.4	10.0		5.8	5.3	
Debt service-to-revenue ratio (in percent) 4/	18.2	17.3	11.7			9.7	9.4	8.8	9.8	11.1	11.7		6.4	5.7	
Primary deficit that stabilizes the debt-to-GDP ratio	-4.6	7.2	4.4			2.3	2.0	-0.6	0.9	8.2	1.2		-2.0	-0.3	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.6	5.5	7.0	3.9	2.7	9.0	5.5	2.0	4.0	20.0	5.0	7.6	3.0	3.0	3.3
Average nominal interest rate on forex debt (in percent)	2.7	2.6	2.5	3.1	0.4	2.7	2.8	2.8	2.9	2.9	2.9	2.8	2.7	2.5	2.6
Average real interest rate on domestic debt (in percent)	0.9	12.8	0.3	3.9	5.9	-4.1	-0.2	3.0	1.5	-12.3	3.6	-1.4	5.3	5.3	4.5
Real exchange rate depreciation (in percent, + indicates depreciation)	-11.4	5.3	-6.8	-5.0	10.2	0.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	7.7	-2.5	7.0	6.0	4.2	12.5	9.6	5.5	6.9	24.6	7.5	11.1	4.0	4.0	4.8
Growth of real primary spending (deflated by GDP deflator, in percent)	0.0	0.5	0.0	0.1	0.2	0.1	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	…	…	32.0	30.2	28.0	26.4	25.3	22.7	27.4	22.4	18.6	...

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3/ Revenues excluding grants.

4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Appendix Table 2 Papua New Guinea: Sensitivity Analysis for Key Indicators of Public Debt, 2011–2031

	Projections							
	2011	2012	2013	2014	2015	2016	2021	2031
PV of Debt-to-GDP Ratio								
Baseline	22	18	18	19	14	13	10	7
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	22	17	13	8	-3	-8	-32	-66
A2. Primary balance is unchanged from 2011	22	18	16	12	2	-1	-17	-36
A3. Permanently lower GDP growth 1/	22	19	19	20	15	15	16	31
A4. All Other Liabilities (Pensions, SOEs and LNG Contingent Liabilities).	22	26	26	27	26	26	22	17
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	22	20	22	24	19	19	20	30
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	22	22	24	26	20	19	16	14
B3. Combination of B1-B2 using one half standard deviation shocks	22	20	19	21	16	15	15	18
B4. One-time 30 percent real depreciation in 2012	22	23	22	23	18	17	14	13
B5. 10 percent of GDP increase in other debt-creating flows in 2012	22	29	29	30	23	23	20	19
PV of Debt-to-Revenue Ratio 2/								
Baseline	66	58	61	77	79	78	55	44
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	66	53	44	31	-14	-46	-172	-395
A2. Primary balance is unchanged from 2011	66	56	53	48	13	-8	-93	-218
A3. Permanently lower GDP growth 1/	66	59	63	81	87	88	85	186
A4. All Other Liabilities (Pensions, SOEs and LNG Contingent Liabilities).	66	82	88	107	147	155	119	105
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	66	64	73	95	107	111	110	179
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	66	70	82	102	111	111	87	87
B3. Combination of B1-B2 using one half standard deviation shocks	66	62	64	83	90	91	79	108
B4. One-time 30 percent real depreciation in 2012	66	72	75	93	100	99	75	77
B5. 10 percent of GDP increase in other debt-creating flows in 2012	66	91	97	120	133	134	109	117
Debt Service-to-Revenue Ratio 2/								
Baseline	8	8	8	8	9	10	6	5
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	8	8	7	5	-6	-9	-49	-96
A2. Primary balance is unchanged from 2011	8	8	7	7	1	-2	-30	-55
A3. Permanently lower GDP growth 1/	8	8	8	9	11	11	11	36
A4. All Other Liabilities (Pensions, SOEs and LNG Contingent Liabilities).	8	8	11	16	18	31	21	17
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	8	8	8	10	15	16	17	36
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	8	8	9	13	20	18	13	16
B3. Combination of B1-B2 using one half standard deviation shocks	8	8	8	9	11	12	11	20
B4. One-time 30 percent real depreciation in 2012	8	9	9	10	13	13	10	14
B5. 10 percent of GDP increase in other debt-creating flows in 2012	8	8	11	19	27	25	19	23

Sources: Country authorities; and staff estimates and projections.
1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.
2/ Revenues are defined inclusive of grants.

Appendix Table 3a Papua New Guinea: External Debt Sustainability Framework, Baseline Scenario, 2008–2031 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation 6/	Projections									
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-2016 Average	2021	2031	2017-2031 Average
External debt (nominal) 1/	**25.6**	**26.6**	**23.9**			**22.8**	**23.8**	**25.6**	**26.5**	**21.0**	**21.2**		**24.3**	**28.4**	
o/w public and publicly guaranteed (PPG)	13.2	12.9	10.7			9.7	9.4	9.7	9.7	7.2	6.9		6.4	5.6	
Change in external debt	-5.7	1.1	-2.7			-1.1	1.0	1.8	0.9	-5.4	0.2		1.0	0.4	
Identified net debt-creating flows	-16.0	2.8	0.9			2.7	2.2	1.6	0.6	-13.0	-13.5		-11.8	-7.6	
Non-interest current account deficit	**-11.5**	**6.6**	**22.3**	**-2.9**	**10.4**	**19.9**	**13.8**	**7.1**	**4.3**	**-8.2**	**-12.7**		**-12.1**	**-8.7**	-11.7
Deficit in balance of goods and services	-16.1	1.7	9.7			-0.6	-5.4	-8.2	-8.1	-21.5	-28.1		-24.7	-17.4	
Exports	77.3	56.8	63.6			75.1	73.7	68.0	61.7	58.3	60.9		49.5	39.3	
Imports	61.2	58.4	73.2			74.4	68.3	59.8	53.6	36.8	32.8		24.8	21.9	
Net current transfers (negative = inflow)	-2.0	-1.4	-2.9	-4.6	2.3	-2.5	-1.9	-1.5	-1.2	-0.8	-0.6		-0.2	0.2	-0.1
o/w official	-1.6	-4.0	-5.5			-5.0	-4.4	-4.1	-3.9	-2.7	-2.4		-1.8	-1.1	
Other current account flows (negative = net inflow)	6.7	6.3	15.6			23.1	21.1	16.8	13.7	14.1	15.9		12.8	8.5	
Net FDI (negative = inflow)	**0.4**	**-5.3**	**-19.0**	**-4.7**	**5.5**	**-17.0**	**-12.1**	**-6.9**	**-4.7**	**-2.7**	**-1.6**		**-1.2**	**-0.8**	-1.1
Endogenous debt dynamics 2/	**-4.9**	**1.5**	**-2.5**			**-0.2**	**0.6**	**1.4**	**1.0**	**-2.1**	**0.8**		**1.5**	**1.9**	
Contribution from nominal interest rate	1.6	1.7	1.6			1.5	1.7	1.9	2.0	1.6	1.7		2.1	2.7	
Contribution from real GDP growth	-1.6	-1.4	-1.6			-1.8	-1.2	-0.5	-1.0	-3.7	-1.0		-0.7	-0.8	
Contribution from price and exchange rate changes	-4.8	1.2	-2.5			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**10.3**	**-1.8**	**-3.6**			**-3.8**	**-1.2**	**0.1**	**0.3**	**7.5**	**13.7**		**12.8**	**8.0**	
o/w exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	24.4			23.0	23.8	25.3	26.0	20.5	20.7		23.5	27.6	
In percent of exports	...	...	38.3			30.7	32.3	37.2	42.1	35.2	34.0		47.4	70.3	
PV of PPG external debt	**...**	**...**	**11.1**			**9.8**	**9.3**	**9.4**	**9.2**	**6.7**	**6.4**		**5.7**	**4.8**	
In percent of exports	**...**	**...**	**17.5**			**13.1**	**12.6**	**13.8**	**14.9**	**11.4**	**10.5**		**11.4**	**12.1**	
In percent of government revenues	**...**	**...**	**41.2**			**34.7**	**34.4**	**36.9**	**43.0**	**44.8**	**43.9**		**33.9**	**30.9**	
Debt service-to-exports ratio (in percent)	**5.1**	**7.2**	**5.5**			**4.3**	**4.2**	**5.3**	**6.0**	**4.9**	**4.8**		**6.5**	**9.5**	
PPG debt service-to-exports ratio (in percent)	**2.0**	**2.6**	**1.8**			**1.3**	**1.2**	**1.3**	**1.4**	**1.0**	**0.9**		**0.8**	**1.0**	
PPG debt service-to-revenue ratio (in percent)	**5.7**	**6.4**	**4.1**			**3.5**	**3.3**	**3.5**	**4.0**	**4.1**	**3.9**		**2.4**	**2.5**	
Total gross financing need (Billions of U.S. dollars)	-0.3	0.7	1.0			1.1	1.0	1.0	1.0	-0.9	-1.4		-1.2	0.8	
Non-interest current account deficit that stabilizes debt ratio	-5.8	5.6	25.0			21.0	12.8	5.3	3.4	-2.8	-12.9		-13.1	-9.1	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.6	5.5	7.0	3.9	2.7	9.0	5.5	2.0	4.0	20.0	5.0	7.6	3.0	3.0	3.3
GDP deflator in US dollar terms (change in percent)	18.3	-4.4	10.4	6.7	10.0	9.9	2.5	-0.3	2.1	19.4	2.6	6.1	0.4	1.9	2.1
Effective interest rate (percent) 5/	6.4	6.6	7.0	5.8	1.7	7.7	8.2	8.1	8.2	8.8	8.9	8.3	9.5	10.2	9.7
Growth of exports of G&S (US dollar terms, in percent)	20.6	-26.0	32.2	11.5	22.1	41.5	6.1	-6.0	-3.7	35.4	12.5	14.3	0.4	2.4	2.4
Growth of imports of G&S (US dollar terms, in percent)	4.9	-3.7	48.0	14.0	19.5	21.7	-0.8	-10.9	-4.8	-1.7	-3.8	-0.1	3.0	3.8	2.7
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	32.0	30.2	28.0	26.4	25.3	22.7	27.4	22.4	18.6	21.2
Government revenues (excluding grants, in percent of GDP)	27.2	23.5	27.0			28.4	27.0	25.4	21.3	14.9	14.5		16.7	15.4	15.7
Aid flows (in Billions of US dollars) 7/	0.4	0.4	0.6			0.6	0.6	0.6	0.6	0.6	0.5		0.6	0.6	
o/w Grants	0.4	0.3	0.5			0.6	0.5	0.5	0.5	0.5	0.5		0.5	0.5	
o/w Concessional loans	0.0	0.1	0.1			0.1	0.1	0.1	0.1	0.1	0.0		0.1	0.1	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			5.3	4.8	4.5	4.2	2.9	2.5		1.9	1.2	1.7
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			88.3	86.2	84.5	82.7	82.5	83.9		81.6	78.9	80.8
Memorandum items:															
Nominal GDP (Billions of US dollars)	8.0	8.1	9.5			11.4	12.3	12.5	13.3	19.1	20.6		28.1	45.6	
Nominal dollar GDP growth	26.2	0.8	18.1			19.8	8.1	1.7	6.2	43.3	7.7	14.5	3.4	5.0	5.5
PV of PPG external debt (in Billions of US dollars)			1.1			1.1	1.1	1.1	1.2	1.2	1.3		1.6	2.2	
(PVt-PVt-1)/GDPt-1 (in percent)						0.1	0.2	0.3	0.4	0.4	0.2	0.3	0.2	0.1	0.2
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	11.1			9.8	9.3	9.4	9.2	6.7	6.4		5.7	4.8	
PV of PPG external debt (in percent of exports + remittances)	...	...	17.5			13.1	12.6	13.8	14.9	11.4	10.5		11.4	12.1	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	1.8			1.3	1.2	1.3	1.4	1.0	0.9		0.8	1.0	

Sources: Country authorities; and staff estimates and projections.
1/ Includes both public and private sector external debt.
2/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.
3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.
4/ Assumes that PV of private sector debt is equivalent to its face value.
5/ Current-year interest payments divided by previous period debt stock.
6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
7/ Defined as grants, concessional loans, and debt relief.
8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

Appendix Table 3b Papua New Guinea: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011–2031

(In percent)

	Projections							
	2011	2012	2013	2014	2015	2016	**2021**	2031
PV of debt-to GDP ratio								
Baseline	10	9	9	9	7	6	**6**	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	10	0	-8	-16	-14	-10	**13**	15
A2. New public sector loans on less favorable terms in 2011-2031 2	10	9	10	10	7	7	**7**	8
A3. Authorities' Price Assumptions for Gold, Copper and Oil in 2011-2013.	9	22	38	37	26	25	**18**	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	10	9	9	9	6	5	**3**	-2
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	10	19	31	30	21	20	**14**	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	10	9	9	9	6	6	**3**	-2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	10	17	21	20	14	13	**9**	1
B5. Combination of B1-B4 using one-half standard deviation shocks	10	21	24	23	17	16	**11**	2
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	10	12	12	11	8	7	**4**	-3
PV of debt-to-exports ratio								
Baseline	13	13	14	15	11	10	**11**	12
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	13	0	-12	-25	-24	-16	**27**	39
A2. New public sector loans on less favorable terms in 2011-2031 2	13	13	14	16	13	12	**15**	19
A3. Authorities' Price Assumptions for Gold, Copper and Oil in 2011-2013.	13	39	78	60	45	41	**36**	13
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	13	12	13	13	10	8	**5**	-5
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	13	31	58	61	46	42	**37**	11
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	13	12	13	13	10	8	**5**	-5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	13	23	31	33	25	22	**19**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	13	29	35	37	28	25	**21**	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	13	12	13	13	10	8	**5**	-5
PV of debt-to-revenue ratio								
Baseline	35	34	37	43	45	44	**34**	31
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	35	-1	-33	-73	-93	-67	**80**	100
A2. New public sector loans on less favorable terms in 2011-2031 2	35	34	38	46	49	50	**43**	49
A3. Authorities' Price Assumptions for Gold, Copper and Oil in 2011-2013.	33	82	150	172	176	171	**108**	34
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	35	34	36	41	41	37	**17**	-14
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	35	70	121	139	142	138	**85**	22
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	35	35	37	42	42	38	**18**	-14
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	35	64	83	95	97	93	**55**	7
B5. Combination of B1-B4 using one-half standard deviation shocks	35	77	96	110	112	108	**64**	10
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	35	46	48	54	53	49	**23**	-18
Debt service-to-exports ratio								
Baseline	1	1	1	1	1	1	**1**	1
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	1	1	1	0	0	0	**0**	2
A2. New public sector loans on less favorable terms in 2011-2031 2	1	1	1	1	1	1	**1**	1
A3. Authorities' Price Assumptions for Gold, Copper and Oil in 2011-2013.	1	2	3	3	2	2	**3**	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	1	1	1	1	1	1	**1**	0
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	1	1	2	3	2	2	**3**	2
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	1	1	1	1	1	1	**1**	0
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	1	1	2	2	1	1	**2**	1
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	2	2	2	1	**2**	1
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	1	1	1	1	1	1	**1**	0
Debt service-to-revenue ratio								
Baseline	4	3	4	4	4	4	**2**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	4	3	2	1	0	1	**-1**	6
A2. New public sector loans on less favorable terms in 2011-2031 2	4	3	3	4	4	4	**3**	4
A3. Authorities' Price Assumptions for Gold, Copper and Oil in 2011-2013.	4	3	5	8	8	8	**9**	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	4	4	4	4	4	4	**2**	0
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	4	3	5	7	7	7	**7**	4
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	4	4	4	4	4	4	**2**	0
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	4	3	4	6	6	5	**5**	3
B5. Combination of B1-B4 using one-half standard deviation shocks	4	4	5	6	6	6	**6**	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	4	5	5	5	6	5	**3**	1
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	19	19	19	19	19	19	**19**	19

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.

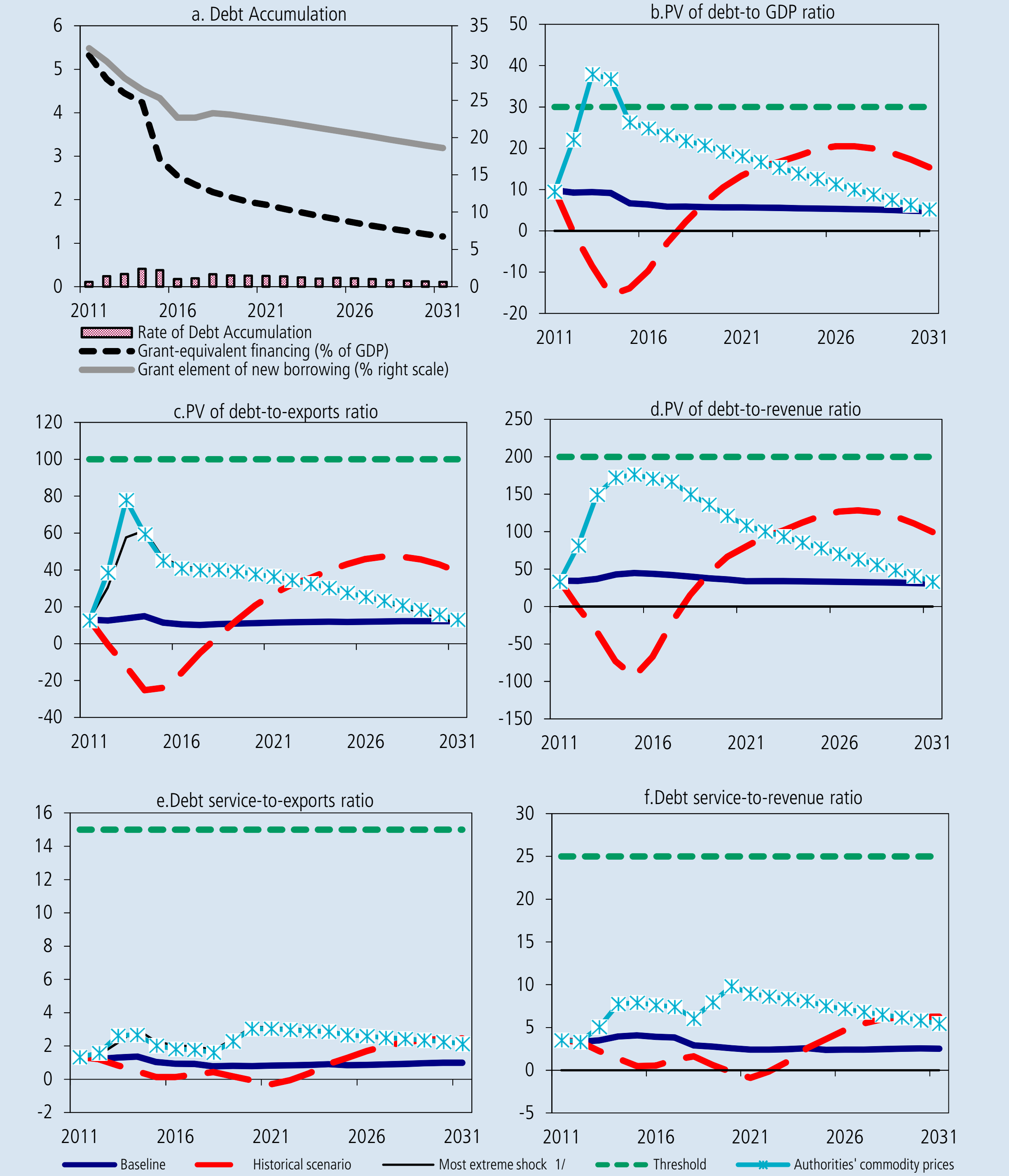
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

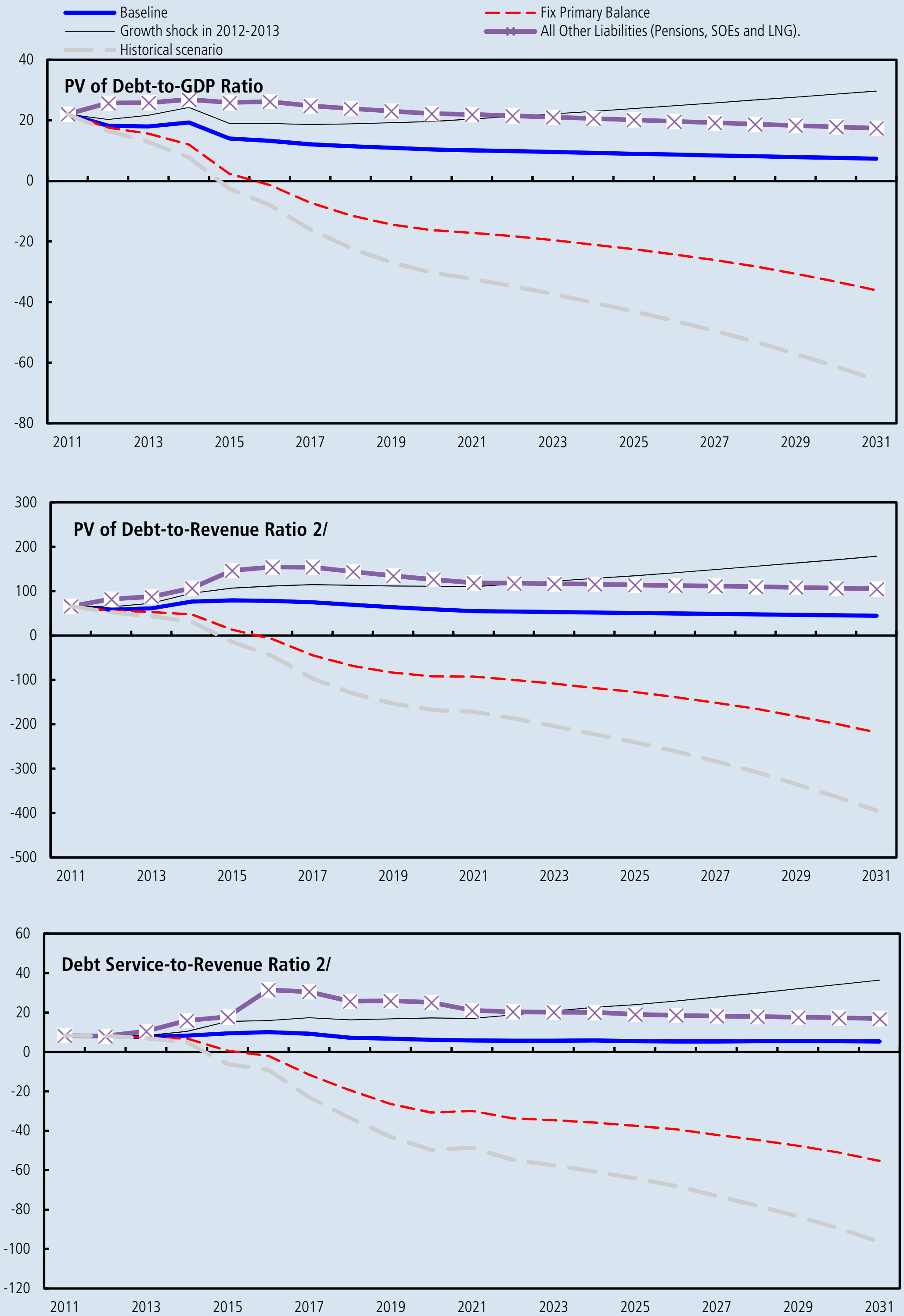
Appendix Figure 1 Papua New Guinea: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2011–2031 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2021. In figure b. it corresponds to an authorities' prices shock; in c. to a Exports shock; in d. to an authorities' prices shock; in e. to a Exports shock and in figure f. to an authorities' prices shock

Appendix Figure 2 Papua New Guinea: Indicators of Public Debt Under Alternative Scenarios, 2011–2031 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2021.

2/ Revenues are defined inclusive of grants.

Appendix 4 Papua New Guinea—FSAP: Main Lessons and Take-Aways

The joint IMF-World Bank FSAP mission, which visited Port Moresby in May 2010, took place against (i) a backdrop of wide-spread optimism for the operation of the Liquefied Natural Gas (LNG) projects after 2014 and (ii) a mild impact of the financial crisis on PNG largely due to the broad insulation of the financial sector from the global financial markets. The main findings and recommendations, which were updated during the 2011 Article IV consultations, are summarized below.

PNG's financial sector

Total financial sector assets have grown to roughly 95 percent of GDP and are held by a wide range of institutions. Currently, there are four commercial banks, seven authorized superannuation funds, and a number of other nonbank financial sector institutions licensed and regulated by BPNG. General insurance companies regulated by the Insurance Commission and the stock exchange by the Securities Commission.

Banks and superannuation funds dominate the financial sector. Since the financial sector reforms in early 2000, banks have increased their assets fivefold to almost K17 billion by end-2010. The nationally owned Bank of South Pacific is the largest, followed by subsidiaries of two Australian banks and a Malaysian bank. In addition, there is a state-owned, non-deposit taking National Development Bank, which has a primary function of providing accessible credit to people in rural areas. Nonbanks are important, too, with about K7.5 billion in assets. Among them, the authorized superannuation funds (ASFs) are the largest, holding more than 70 percent of total nonbank financial assets. ASFs, in terms of assets size, are followed by the savings and loans societies, finance and microfinance companies, and insurance companies (including general, life, and broker).

Financial Sector Institutions	Total Assets	
	In million Kina	In percent
Commercial Banks	16715.3	68.3
National Development Bank	200.5	0.8
Authorized Superannuation Funds	5450.8	22.3
Other Nonbank Institutions	2097.1	7.9
Total	24463.7	100

Source: BPNG and IMF staff estimates as of September 2010.

Access to finance is one of the major hurdles to further financial sector deepening. Only about 10 percent of the population and 17 percent of adults currently have access to formal financial services. Although financial services providers make efforts to expand their services, the majority of people in rural communities are still financially excluded. The staff supports the authorities' plan to conduct a financial literacy survey in partnership with the World Bank and UNDP during 2011. This survey could lead to specific projects aimed at extending financial services to complement the banking services provided by microfinance institutions to people in rural areas.

The authorities are committed to support financial inclusion. The PNG Development Strategic Plan 2010–2030 identifies the extension of microfinance banking services to all districts in PNG as a priority. In addition, the national payment system development program aims to encourage the introduction and use of innovative, convenient, and cost-effective new retail payment instruments, with a special focus on rural areas.

Overall financial sector soundness is satisfactory

Indicators point to a generally well-capitalized and highly profitable financial sector. Credit and market risks in the banking sector are relatively low and can easily be offset by prevailing high levels of capital, low levels of nonperforming loans, and high provisions. Nonetheless, high capital ratios are appropriate to accommodate lending to larger clients and growing credit risk that is expected in the medium term. Also, high concentration of the financial sector, the absence of secondary market for government securities, and the lack of repo and discount windows require banks to maintain higher liquidity.

Regulation and supervision of the banking sector has been strengthened, although several elements will still be required to move toward a more risk-based approach. The BPNG has been developing its supervisory techniques since the reforms of 2000, but it is essential that it completes the suite of prudential standards, enhance the available supervisory tools, and make better use of the tools it has. The crisis management framework is incomplete, and steps need to be taken to put this in place.

Authorized Superannuation Funds (ASFs) are the principal source of long-term investment. Papua New Guinea's demographic profile and a system of compulsory savings in the formal sector, along with wage growth, will ensure a positive net cash flow and

Appendix 4 Papua New Guinea—FSAP: Main Lessons and Take-Aways

(continued)

anchor the role of these funds as a key source of domestic savings. The ASFs and general insurers have been performing with increasing efficiency, while general insurers are well capitalized, profitable and exhibit sound risk management.

The reform agenda needs to continue

Payment and settlements systems need major reforms. The legal framework does not recognize payment services as an independent activity, while the lack of an inter-bank real-time payment system with collateralized liquidity management creates systemic risks. The clearing house operations are manual and paper based. Establishing an independent Payment Systems Department in the BPNG is crucial to support regulation and oversight.

Efforts to develop the local government securities markets need to be intensified. Although the overall operation of the primary market reflects best practice, banks have limited incentives to canvass investors. Smaller investors face hurdles, as the minimum amount to participate on a competitive basis is high and there is no opportunity for smaller investors to enter noncompetitive bids. Exposure of PNG to international investors through the LNG projects may provide new opportunities to attract nonresident investors.

Improving access to financial services remains a developmental challenge, and efforts need to be stepped up. Around 85 percent of the adult population is excluded from the formal sector, largely those in rural communities. The main barriers are operational challenges and infrastructure weaknesses, resulting in high intermediation costs.

Further developments on AML and CFT issues should be pursued. This should include enacting legislation on terrorist financing and the use of existing supervisory powers to encourage banks to undertake detailed customer due diligence.

The establishment of a sovereign wealth fund is under consideration, but modalities need to be carefully designed. In view of the large revenues anticipated from the LNG projects, a key concern for the government is the setting-up of the appropriate institutional and investment management arrangements.

Attachment Main FSAP Recommendations

	Priority
Banking Sector	
Credit Risk	
• Monitor current and emerging NPLs to assess the causes and macroeconomic impacts.	High
• Conduct a thorough analysis of counterparty exposure concentrations, with full account of interconnectedness.	Medium
• Conduct a thorough analysis of collateral and related exposures of lending to property valuations.	Medium
Liquidity Risk	
• Develop monitoring systems and stress testing that allow for a revised definition of liquid assets (without government securities).	High
• Ensure that any steps to remove government deposits from banks are done with careful planning and consultation.	High
• Clarify and formalize bank liquidity-support arrangements for each bank with the BPNG, including through repurchase arrangements for government securities.	High
Regulation and Supervision	
• Complete the supervisory regime by publishing a full set of prudential standards, starting with risk management, market, and liquidity risk but also including governance, credit, and operational risk in the context of a phased move to Basel II.	High
• Increase the range of administrative sanctions and make compliance with prudential standards compulsory, while developing a remedial action program.	High
• Enhance the capacity of the supervisory staff through training, so that the BPNG can move to full risk-based supervision.	High
• Conduct and document a full risk assessment as the basis for supervisory strategy.	Medium
• BPNG to explore scope for technical assistance to centralize data management systems.	Medium
Systemically important institutions	
• Arrangements for liquidity improvement and contingency planning should be made to reduce the risk profile, while the number of shareholders should be increased in a measured way.	Medium
Sovereign Wealth Funds	
• If authorities opt for a SWF to manage future LNG project-related proceeds, decide on the objective(s), funding and withdrawal rules, institutional arrangements, including organizational structure, roles and responsibilities, and investment strategy.	High
Government Debt Markets	
• Assess the broader public-sector debt obligations such as borrowing and guarantees.	High
• Issue BPNG guidelines to market participants on sound procedures for repurchase transactions.	High
• Introduce a requirement that all repos should be collateralized and introduce the Master Repurchase Agreement.	High
• Transfer trust funds accounts to BPNG whilst carefully considering bank positions.	Medium

Attachment Main FSAP Recommendations	Priority
Payment Systems	
• Implement the proposed National Payments System Development Plan.	High
• Establish a Payment Systems Department in the BPNG, with oversight of all payment and securities settlement systems.	High
Insurance Sector	
• Enhance co-operation with local and foreign supervisory authorities, and improve supervisory transparency.	High
• Enhance the supervisory functions regarding offsite reporting and monitoring and onsite inspections.	Medium
• Develop guidance on governance, risk management, and internal controls.	Medium
Financial Inclusion	
• Establish a functional coordination mechanism on financial inclusion through a national consultative process.	Medium
AML	
• Give BPNG responsibility for enforcing financial institutions' obligations.	High
• Complete and issue regulations on customer due diligence regime (especially with more focus on monitoring accounts).	High
Crisis Management	
• Establish a discount-window lending program, including repurchase agreements.	High
• Strengthen its crisis preparedness by developing a contingency planning framework, including internal procedures on emergency liquidity assistance.	High

INTERNATIONAL MONETARY FUND

PAPUA NEW GUINEA

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

May 3, 2011

Prepared By The Asia and Pacific Department
(In Consultation with Other Departments)

CONTENTS

ANNEX I. PAPUA NEW GUINEA: FUND RELATIONS

(As of March 31, 2011)

Membership Status

Joined: October 9, 1975; Article VIII

General Resources Account

	SDR Million	Percent Quota
Quota	131.60	100.00
Fund holdings of currency	131.16	99.67
Reserve position in Fund	0.44	0.33

SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	125.49	100.00
Holdings	9.96	7.93

Outstanding Purchases and Loans

	SDR Million	Percent Quota
	0.00	0.00

Latest Financial Arrangements

Type	Approval Date	Expiration Date	Amount Approved (SDR million)	Amount Drawn (SDR million)
Stand-by	3/29/2000	9/28/2001	85.54	85.54
Stand-by	7/14/1995	12/15/1997	71.48	35.34
Stand-by	7/31/1991	9/30/1992	26.36	0.00

Projected Payments to Fund[1]

(SDR million; based on existing use of resources and present holding of SDRs):

	Forthcoming				
	2011	**2012**	**2013**	**2014**	**2015**
Principal	16.56	8.28			
Charges/interest	0.15	0.21	0.20	0.20	0.20
Total	**16.71**	**8.49**	**0.20**	**0.20**	**0.20**

[1] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Safeguards Assessments

Under the Fund's Safeguards Assessments policy, the Bank of Papua New Guinea (BPNG) was subject to a transitional assessment based on its Stand-By Arrangement with the Fund, which was approved in March 2000 and expired in September 2001. The transitional assessment was completed on May 4, 2001 and made recommendations to alleviate identified weaknesses. Currently, the BPNG is not subject to the Safeguards Assessments policy.

Exchange Rate Arrangement

Papua New Guinea has a floating exchange rate arrangement; the exchange rate of the kina is determined in the interbank market in which authorized banks participate. Papua New Guinea has accepted the obligations of Article VIII, Sections 2, 3, and 4, and maintains an exchange system free of restrictions on payments and transfers for current international transactions.

Article IV Consultations

The 2010 Article IV consultation discussions were held during February 12–23, 2011. It was concluded by the Executive Board on May 19, 2010 (IMF Country Report No. 10/164). Papua New Guinea is on the 12–month cycle.

Technical Assistance from Headquarters

FAD: A joint FAD/PFTAC mission in March 2000 assisted the authorities in preparing a Report on the Observance of Standards and Codes Fiscal Transparency Module, published in October 2000. A mission in December 2000 provided advice on the reconciliation of large and volatile differences in fiscal reporting based on information provided by the Treasury Department and information reported by the Bank of Papua New Guinea. A mission in February 2002 assessed progress in improving fiscal transparency.

LEG: A mission in November 1996 provided advice on the legal framework for the National Value-Added Tax. A mission in November 2005 provided advice on the drafting of a tax administration law. A mission in July 2006 provided a comprehensive program of assistance in the development of the AML/CFT regime, including legislative drafting and capacity building. A mission in August/September 2007 assisted the authorities in finalizing the terms of the Revenue Administration Bill.

MFD/MCM: During 2001–03 assistance was provided through missions in bank supervision, financial sector restructuring and improving the accounting framework and monetary operations of the central bank. A resident advisor was assigned to the BPNG research department for 15 months through August 2003. Technical assistance through peripatetic visits was delivered on bank regulation and supervision (2001–February/March 2007, July–August 2009, and February 2010), medium-term monetary policy formulation (October 2004 and September 2005), reserve management (June 2006–September 2007, March/July–August 2009, January–February 2010), internal audits (2004–August 2007), accounting (September/October 2006–February 2007, February–March/June–July/November 2009), liquidity management (January 2009), and monetary and forex operations (July–August 2009, February 2010).

STA: Four GDDS missions took place in 1995–96; one inspection visit was conducted in April 2001; one mission provided advice on the compilation of national accounts in February 2006; and one mission provided advice on balance of payments in May 2003. A mission reviewed monetary and financial statistics in April 2005 and a follow-up mission took place in May 2006. Subsequently, a multisector statistics mission visited in September 2006 followed by a high level STA visit in December 2007. Two follow-up missions in balance of payments took place in June 2008 and November 2009 and three follow-up missions in monetary and financial statistics took place in April 2008, November 2009 and May 2010.

Resident Representative

None.

ANNEX II. PAPUA NEW GUINEA RELATIONS WITH THE PACIFIC FINANCIAL TECHNICAL ASSISTANCE CENTRE[1]

(As of April 19, 2011)

Until the Resident Representative position was closed in May 2008, the resident representative helped coordinating TA assistance to Papua New Guinea (PNG), with the extensive assistance provided by the Australian Enhanced Cooperation Program (ECP). Since 2000, PFTAC has provided more than 25 missions to PNG, and the Government has sent over 50 officials to the Centre's regional seminars, workshops, and training courses in this period.

A. Public Financial Management

PFTAC assisted in the preparation of a ROSC, which was published in October 2000. The PFTAC PFM Advisor has participated in occasional FAD technical assistance missions, and an attachment of one PNG official to PFTAC was completed in April 2007. PNG participated, with four officials, in the US Treasury study visit in September 2008.

B. Tax Administration and Policy

The IMF Legal Department drafted a Tax Administration Act in 2005, adopted by the Government in 2006, that: (i) the re-established the Internal Revenue Commission as an independent tax authority; and (ii) included customs administrative provisions. An IMF Legal Department mission in September 2007 prepared the Internal Revenue Commission Administration Bill 2007 to strengthen and consolidate all revenue administrative provisions into one statute.

PFTAC has delivered a project to: objectively assess the existing IT system of the Internal Revenue Commission and; develop and draft an information technology strategic plan (ITSP) and: based on the ITSP, draft a business plan for the redevelopment of the IT system. The project

[1] The Pacific Financial Technical Assistance Centre (PFTAC) in Suva, Fiji is a regional technical assistance institution operated by the IMF with financial support of the Asian Development Bank, Australia, Korea, Japan and New Zealand. The Center's aim is to build skills and institutional capacity for effective economic and financial management that can be sustained at the national level. Member countries are: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu.

comprised of a number of missions between 2006 and 2009 that delivered:

- An assessment of the current and future business drivers.
- Development of the business system architecture for the ITSP.
- Completion of the applications, information and IT technical architecture phases of the ITSP project.
- Recommendations for the management and delivery of IT services within the IRC.
- Completion and approval of the ITSP Transition Plan.
- Drafting of the request for information (RFI) to test the market availability of suitable tax administration packaged software.
- Development of a business case to fund redevelopment of the Internal Revenue Commission (IRC) technology system, that is suitable for presentation and decision making by the Government of PNG and other potential donor organisations.

C. Financial Sector Regulation and Supervision

There is no current PFTAC involvement in this area. In October 2005, the BPNG hosted the annual meeting of the Association of Financial Supervisors of Pacific Countries, for which PFTAC is the secretariat. In March 2007, PFTAC funded an attachment for two supervisors from BPNG to assist the Cook Islands' supervisory authority to undertake an on-site examination of a domestic bank. In 2008, PFTAC funded an attachment of one supervisor to assist the Reserve Bank of Fiji under an on-site examination of a local branch of a PNG-based bank.Since 2005, the World Bank and the IMF have jointly prepared an annual Debt Sustainability Assessment. The Asian Development Bank has joined since 2009. The IMF and the World Bank also collaborate in the development and timely dissemination of reliable economic and financial statistics. The IMF focuses on improving balance of payments, national accounts, and price statistics, while the World Bank provides assistance on issues related to the production of high-quality household and enterprise surveys. Through PRSC10, the World Bank and development partners are supporting the SBV to formulate a regulation that would improve timeliness and availability of monetary and banking sector information.

D. Economic and Financial Statistics

In February 2006, the Advisor briefly assessed the BOP compilation with a view to improve its quality, and to assess progress against recommendations made by previous missions. A multi-sector statistics mission in September 2006 assessed the statistical systems (BOP, national accounts, prices statistics, government finance statistics and monetary statistics), with the PFTAC Advisor assessing the national accounts and providing overall coordination. The BOP expert provided some TA to progress improvements to the methodology and source data. In 2008 and 2009 the Advisor undertook balance of payment (BOP) statistics missions to review statistics prerequisites, progress in improving compilation methods and source data, as well as to assist Bank of PNG statistics staff in assessing the feasibility of electronic data collection.

E. Macroeconomic Analysis

Following a request by the Bank of Papua New Guinea for assistance in building up a financial programming capacity, the Advisor visited PNG in January 2011 to take stock of current capacity and develop a work plan for implementing the capacity-building project. The first follow-up visit is planned for May 2011. The advisor will also, in collaboration with APD, deliver a seminar on the macroeconomic implications of scaling-up expenditure due to increased resource revenues.

ANNEX III. PAPUA NEW GUINEA RELATIONS WITH THE WORLD BANK GROUP

(As of April 29, 2011)

1. **The Fund PNG team led by Mr. Schule (mission chief) met with the World Bank PNG team led by Ms. Bailey (country manager)** on February 11, 2011, to identify macrocritical structural reforms and to coordinate the two teams' work for the period February 2011–March 2012.

2. **The teams agreed that in the near term, the authorities' priority is to maintain macroeconomic stability and fiscal sustainability, the pre-requisites for sustained growth.** Given the developments of the LNG projects and increased business activity associated with these projects, it is an opportune time, with appropriate policies, to help notably lift living standards in PNG. However, to avoid the paradox of plenty there is a need to effectively manage the revenues from nonrenewable resources. In addition to spending these revenues gradually over time to address development needs such as infrastructure, education, health, and law and order, the authorities will need to be particularly mindful of the absorption capacity of the economy. On top of that, the authorities should not borrow against future LNG revenue to fund large infrastructure projects. Further, holding accumulated assets offshore will be essential to avoid currency appreciation that would undermine the competiveness of the non-resource tradable sector.

3. **The Bank and Fund staffs continue to work closely together to support the agenda of enhancing economic growth by helping the country to remove the constraints in the following areas:**

- **Macroeconomic policy framework:** The Fund takes the lead on exchange rate issues, monetary policy, and macroeconomic aspects of fiscal policy while the Bank takes the lead on medium-term growth prospects, composition of public expenditure, as well as structural policies to support growth.

- **Public financial management reforms:** The Bank supports Government initiatives on improved diagnostics including sectoral or overall PERs, while the Fund takes the lead on strengthening the implementation of the MTFS, improving coordination between monetary and fiscal policy, and other PFM issues through the PFTAC.

- **Financial sector reforms:** The Bank takes the lead on programs to improve SME access to finance, including through collaborative work with the IFC and the Fund takes the lead on bank regulation and supervision, central bank accounting and internal audit.

- **Energy sector reforms:** Bank takes the lead in reforms to build a financially viable and efficient energy sector while the Fund monitors implications of quasi-fiscal losses for debt sustainability and monetary management.

- **Sovereign wealth fund:** The Fund takes the lead on guiding the establishment of a SWF aligned to the budget while the Bank takes the lead on discussions regarding mechanisms for linking the SWF(s) to budget processes, investment planning, and the next generation of Medium-Term Fiscal and Debt Strategies.

- **Statistical system reforms:** The two institutions will collaborate on strengthening the statistical authorities.

4. The following table lists the teams' separate and joint work programs during February 2011–March 2012.

Table Papua New Guinea: Bank and Fund planned activities in macrocritical structural reform areas, February 2011–March 2012

Title	Products	Provisional Timing of Missions	Expected Delivery Date
1. Bank Work Program	Country Assistance Strategy	Preparatory work starting in first half of fiscal year 2012	Second half of fiscal year 2012
	Statistics TA (household survey, development of revised CPI and national accounts consumption measure)	Ongoing	Household survey results expected first quarter of fiscal year 2012; other components to follow
	Supporting government develop a sovereign wealth fund framework	Presentation of analytical work on managing revenue volatility in April 2010; support for developing framework expected May–August 2011	Ongoing
	Anti-Money Laundering/ Terrorist Finance Assessment Mission	Mission in November 2010	Draft report presented to government in December 2010
	Analytical work, technical assistance and possible lending operations in the area of social services (including education)	Ongoing	Implementation throughout fiscal year 2011 and 2012
	Debt Management Performance Assessment (DeMPA)	November–December 2010	Final report, incorporating government comments, presented to government in February 2011
	SME Access to Finance IDA-IFC Risk-Sharing Facility with technical assistance – to support increased lending by commercial banks to national SMEs poised to benefit from large resource projects	Ongoing	Scheduled for Board consideration in May 2011
2. Fund Work Program	Article IV consultations	February 2011	May 2011
	TA provision by FAD on SWF and mineral taxation	May 2011	June 2011
	TA provision by PFTAC on SWF model	May and July 2011	July 2011
	Staff visit	July 2011	July 2011
	Article IV consultations	February 2012	May 2012
3. Joint Work Program	Financial Sector Assessment Program	Joint mission in May 2010	FSSA report in May 2011

ANNEX IV. PAPUA NEW GUINEA RELATIONS WITH THE ASIAN DEVELOPMENT BANK[2]

(As of December 31, 2010)

Papua New Guinea (PNG) joined the Asian Development Bank (ADB) in 1971. The ADB has approved 70 loans to PNG totaling $1,317 million for 49 projects, of which 28 loans ($624 million) have been extended from ordinary capital resources and 42 loans ($693 million) from special funds resources. The special fund resources were also used for one grant amounting $15 million. In addition, $62.7 million has been provided for 154 technical assistance projects. There are currently 14 active loans involving 8 projects (and one special fund grant-financed project).

In August 2010, ADB and the Government of PNG agreed on a new country partnership strategy, 2011–2015. The strategy was developed in close consultation with the government and other stakeholders, and is well-aligned to the government's Development Strategic Plan (DSP), 2010–2030 and the Medium-Term Development Plan, 2011–2015. It centers on infrastructure improvements and other measures to help PNG plan and implement a successful transition through the conversion of its natural resources wealth into inclusive economic growth.

In 2010, ADB approved the Town Electrification Investment Program of $150 million and two first tranche ADF and ordinary capital resources loans totaling $57.3 million, and also an expansion of ADB's microfinance project support with a $13 million concessional loan. ADB's ongoing lending activities support road, seaport and airport rehabilitation and improvement, community water transport, renewable power generation and transmission, regional cooperation and investment, rural health services delivery, access to microfinance, and expansion of telecommunication services. ADB provides technical assistance in all these areas to improve policy, capacity, and knowledge. ADB also finances experts and programs to improve the government's public financial management, and to mitigate and adapt to climate change risks.

The ADB's lending to PNG for 2012–2014 is expected to remain a blend from the Asian Development Fund (ADF) and ordinary capital resources (OCR). ADB's ADF allocation for PNG for 2012–2014 totals approximately $160 million and OCR lending is expected to be approximately $190 million. Indicative non-lending assistance for 20012–2014 totals $12 million. ADB will leverage up to $50 million of co-financing.

Creating private sector-friendly conditions is also a strategic priority and, in PNG, ADB supports (i) the development and implementation of the National Public–Private Partnership

[2] Prepared by ADB staff.

Policy Act and corresponding institutions; (ii) the development of a national community service obligation framework for state-owned enterprises; (iii) increased access to finance through microfinance, branchless banking, and secured transactions frameworks; and (iv) public information and private sector advocacy activities.

ADB also invests directly in the private sector in PNG. In 2009, ADB, in collaboration with commercial banks and the International Finance Corporation, provided $18 million in senior debt to increase Digicel PNG's term loan facility. The funds are primarily being used to expand Digicel's network capacity and coverage and upgrade its billing system.

Table Papua New Guinea: Public Sector Loan Approvals and Disbursements, 2004–2010

(In millions of U.S. dollars)

	2004	2005	2006	2007	2008	2009	2010
Loan approvals	19.0	0.0	53.0	100.0	100.0	120.0	70.3
Loan disbursements	19.2	21.5	29.3	27.4	19.8	17.4	27.9

ANNEX V. PAPUA NEW GUINEA STATISTICAL ISSUES

(As of April 15, 2011)

A. Assessment of Data Adequacy for Surveillance

General: Data provision has some shortcomings, but is broadly adequate for surveillance. Most affected areas are: national accounts, fiscal accounts, and balance of payments.

National accounts: The National Statistical Office (NSO) lacks sufficient staff with computer training. The accuracy and reliability of the data are affected by inadequate source data. The Bank of Papua New Guinea (BPNG) and the Department of Treasury produce the most current data. In mid-2000, the NSO released a set of national accounts (NA) estimates: National Income, Expenditure and Product, 1993–98. These estimates were compiled using the 1968 System of National Accounts. However, the NSO has been working to implement the 1993 SNA. In March 2004, the NSO released a preliminary set of national income, expenditure, and production accounts estimates for 1994–2002, rebased to 1998 prices. As these figures are still in need of substantial improvements, the 2006 STA multisector mission recommended against publication of the new GDP data until the needed revisions are made. In an attempt to fill the vacuum, the Treasury—responsible for Government finance statistics (GFS)—has actually assumed the role of estimating the NA for 2002 to the present. Expenditure side data are available until 2006.

Prices statistics: The NSO currently compiles a new quarterly wholesale price index (which it does not publish) and a quarterly consumer price index that is based on weights that are thirty four years old. The NSO intends to use the results of the 2009/2010 Household Income Expenditure Survey (HIES) to rebase the CPI. The survey documents are currently being prepared for publication.

Government finance statistics: Annual GFS reported to STA suffer from insufficient coverage. While central government tax revenue statistics are generally accurate and timely, nontax revenue and public expenditure data are deficient. In particular, development budget expenditures and the utilization of grants and project loans are recorded with long lags, and few records on the use of trust accounts are available. While interest payment records are accurate, there are timing issues regarding the recording of interest on discount securities. These weaknesses contribute to discrepancies in domestic financing between estimates from monetary and debt data and those derived from fiscal records. The 2006 STA multisector mission encouraged the authorities to prepare a list of public sector units to permit a comprehensive delineation of the levels of government, which should help reconcile the GFS with other datasets.

Monetary statistics: Monetary data are now being produced and reported to STA on a regular basis. Previous monetary and financial statistics (MFS) missions helped to (i) finalize the review of the collection, compilation, and dissemination procedures of monetary statistics by the BPNG; (ii) develop a work program to facilitate the full implementation of the methodology recommended in the Monetary and Financial Statistics Manual (MFSM); (iii) introduce the standardized report forms (SRFs) for reporting monetary data of the central bank, other depository corporations, other financial corporations (OFCs) monetary aggregates; and (iv) finalize the integrated monetary database that meets the data needs of the BPNG, STA, and APD. A MFS mission is scheduled for FY 2012 to introduce the SRF for OFCs with complete institutional coverage.

Balance of payments statistics: Annual balance of payments data are derived from the International Transactions Reporting System (ITRS), which is not tightly monitored despite the BPNG reporting requirements. There are marked differences between the official data on exports and imports of goods and those reported by trading partners. The financial accounts data are of poor quality because of major deficiencies in data collection, especially in the areas of private external debt. Quarterly data are also published by the BPNG. The 2006 STA multisector mission identified as a priority to strengthen current account estimates, including through improved classification of investment earnings, trade credits, and grant receipts as well as enhancing source data for imports and exports. Progress is being made to implement the recommendations from the PFTAC's BOP missions in June 2008 and November 2009. A follow-up PFTAC BOP mission is scheduled for FY 2012. Detailed BOP statistics are under review to be released in the near future.

B. Data Standards and Quality

Does not participate in the General Data Dissemination System.

No data ROSC is available.

C. Reporting to STA

Papua New Guinea last reported government finance statistics for publication in the *Government Finance Statistics Yearbook* and in *International Financial Statistics* for 1999–2002 and cover only budgetary central government.

Monetary data are reported to STA for publication in *IFS* on a regular monthly basis.

Balance of payments data for 2009 were reported to STA for publication in *IFS* and *BOPSY*.

National accounts data for 2004 were reported to STA for publication in *IFS*.

Papua New Guinea: Table of Common Indicators Required for Surveillance

As of April 15, 2011

	Date of Latest Observation	Date Received	Frequency of Data[1]	Frequency of Reporting[1]	Frequency of Publication[1]
Exchange Rates	04/08/11	04/15/11	D	W	W
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[2]	04/08/11	04/15/11	W	W	Q
Reserve/Base Money	02/11	03/29/11	M	M	Q
Broad Money	02/11	04/06/11	M	M	Q
Central Bank Balance Sheet	02/11	03/29/11	M	M	Q
Consolidated Balance Sheet of the Banking System	02/11	04/06/11	M	M	Q
Interest Rates[3]	12/10	01/11	W	W	Q
Consumer Price Index	09/10	12/10	Q	Q	Q
Revenue, Expenditure, Balance and Composition of Financing[4]—General Government[5]	N/A	N/A	N/A	N/A	N/A
Revenue, Expenditure, Balance and Composition of Financing[4]—Central Government	12/10	04/11	A	A	A
Stocks of Central Government and Central Government-Guaranteed Debt[6]	09/10	12/10	Q	Q	Q
External Current Account Balance	09/10	12/10	Q	Q	Q
Exports and Imports of Goods and Services	09/10	12/10	Q	Q	Q
GDP/GNP	2009	11/10	A	A	A
Gross External Debt	2009	02/11	Q	A	A
International Investment Position[7]	N/A	N/A	N/A	N/A	N/A

[1] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A), Irregular (I); and Not Available (N/A).

[2] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

[3] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.

[4] Foreign, domestic bank, and domestic nonbank financing.

[5] The general government consists of the central government (budgetary funds, extra-budgetary funds, and social security funds) and state and local governments.

[6] Including currency and maturity composition.

[7] Includes external gross financial asset and liability positions vis-à-vis nonresidents.

INTERNATIONAL MONETARY FUND

PAPUA NEW GUINEA

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION—SUPPLEMENTARY INFORMATION

May 12, 2011

Prepared By: The Asia and Pacific Department (In Consultation with Other Departments)

Table 2A Papua New Guinea: Summary of Central Government Operations, 2008–16

(In percent of GDP)

	2008	2009	2010 Est.	2011 Proj.	2012 Proj.	2013 Proj.	2014 Proj.	2015 Proj.	2016 Proj.
CASH FLOWS FROM OPERATING ACTIVITIES:									
Cash receipts from operating activities	32.8	27.6	32.6	33.4	31.4	29.5	25.3	17.7	16.9
Taxes	26.8	22.6	25.4	26.6	25.4	24.1	20.6	14.5	14.2
Taxes on income, profits, and capital gains	20.3	16.0	18.4	19.7	18.7	17.3	13.9	9.6	9.3
Taxes on goods & services	4.6	4.8	4.7	4.6	4.6	4.6	4.6	3.5	3.4
Taxes on international trade & transactions	1.9	1.8	2.3	2.3	2.1	2.1	2.0	1.5	1.4
Grants	4.6	4.0	5.5	5.0	4.4	4.1	3.9	2.7	2.4
Other receipts	1.3	1.1	1.7	1.8	1.6	1.4	0.8	0.4	0.4
Cash payments for operating activities	17.5	18.8	16.4	17.8	16.0	16.0	15.6	12.7	12.5
Compensation of employees	7.4	8.0	7.3	8.4	7.1	7.2	7.1	5.1	4.9
Purchases of goods and services	5.3	5.5	4.7	5.1	4.8	4.8	4.8	4.8	4.7
Interest	1.8	2.0	1.4	1.4	1.3	1.0	0.9	0.8	0.9
Subsidies	1.2	1.2	1.1	1.1	1.1	1.1	1.1	0.8	0.8
Grants	0.9	1.2	1.0	1.0	1.0	1.1	1.0	0.7	0.6
Other payments	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.6	0.5
Net cash inflow from operating activities	15.3	8.8	16.2	15.7	15.4	13.6	9.6	5.0	4.5
CASH FLOWS FROM INVESTMENTS IN NONFINANCIAL ASSETS (NFAs):									
Purchases of nonfinancial assets	12.8	18.4	16.5	14.7	15.0	13.9	13.0	8.6	5.9
Fixed assets 1/	12.8	18.4	16.5	14.7	15.0	13.9	13.0	8.6	5.9
Net cash outflow: investments in NFAs	12.8	18.4	16.5	14.7	15.0	13.9	13.0	8.6	5.9
Cash surplus / deficit	2.5	-9.7	-0.3	1.0	0.4	-0.4	-3.4	-3.7	-1.4
CASH FLOWS FROM FINANCING ACTIVITIES:									
Net acquisition of financial assets other than cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net incurrence of liabilities	2.1	0.8	-1.4	-0.3	-1.2	0.8	3.0	0.9	0.6
Domestic	3.8	1.1	-1.0	-0.6	-1.6	0.3	2.4	0.5	0.3
Foreign	-1.7	-0.4	-0.4	0.3	0.4	0.5	0.6	0.4	0.2
Net cash inflow from financing activities	2.1	0.8	-1.4	-0.3	-1.2	0.8	3.0	0.9	0.6
Net change in the stock of cash	5.9	-4.8	-0.8	0.7	-0.8	0.4	-0.4	-2.7	-0.9
Vertical check: Difference between cash surplus/deficit and total net cash inflow from financial activities	-1.3	-4.1	-0.9	0.0	0.0	0.0	0.0	0.0	0.0
Memoranda items:									
Nonmineral overall balance (above the line)	-7.4	-13.4	-7.3	-7.7	-7.4	-6.5	-5.9	-4.4	-2.0
Nominal GDP (in millions of kina)	21,594	22,208	25,421	31,162	36,021	38,771	43,129	64,493	72,779
Trust accounts closing balance	15.0	6.7	7.2	4.2	3.7	3.4	1.9	0.0	0.0

Sources: Data provided by the Papua New Guinea authorities; and IMF staff estimates.

1/ Includes spending from trust accounts.

INTERNATIONAL MONETARY FUND
Public Information Notice
EXTERNAL RELATIONS DEPARTMENT

Public Information Notice (PIN) No. 11/58
FOR IMMEDIATE RELEASE
May 20, 2011

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2011 Article IV Consultation with Papua New Guinea

On May 18, 2011, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Papua New Guinea.[1]

Background

Papua New Guinea has enjoyed a decade of solid economic growth, supported by greater political stability, a sound fiscal framework, and a healthy banking sector. Nonetheless, Papua New Guinea remains a low-income country highly exposed to commodity price fluctuations. A weak infrastructure, problems with governance, and high crime curtails development.

The economy has weathered the global recession relatively well and real GDP growth is estimated to have picked up from 5½ percent in 2009 to 7 percent in 2010. Higher commodity prices and the construction of a liquefied natural gas production facility (LNG)—a 190 percent of GDP project—have boosted the economy, while banks continued to provide finance, and agriculture production rebounded. However, the country's infrastructure—roads, ports and utilities—has shown signs of capacity constraints, and bottlenecks have appeared in the markets for skilled labor and land. Inflation has reached 7.8 percent at end-2010 and is increasingly driven by domestic demand.

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

A large fiscal impulse in place in 2009 was unwound. Higher commodity prices boosted revenues in 2010, at the same time spending from off-budget accounts slowed. As a result, after the deficit had reached 9½ percent of GDP in 2009, a balanced budget was almost achieved in 2010. The Bank of Papua New Guinea has kept the policy interest rate at 7 percent since end-2009. However, monetary conditions loosened as short-term interest rates declined to around 3 percent and the nominal effective exchange rate depreciated by more than 7 percent in 2010.

The financial sector has weathered the global financial crises well and remains sound. Banks are well capitalized and liquid. However, despite lowering their exposure, financial institutions are vulnerable to a possible correction in property markets.

Although commodity prices and exports recovered in 2010, the current account deficit has widened to 24 percent of GDP. It was, however, largely financed by FDI related to the LNG project. External debt declined to about 11 percent of GDP at end-2010.

Executive Board Assessment

Executive Directors welcomed Papua New Guinea's strong economic growth over the past decade, supported by sound policies. Directors considered the near-term outlook to be generally favorable but encouraged the authorities to consider tighter macroeconomic policies in the face of rising inflationary pressures. Over the longer term, it would be important to reinvigorate structural reforms to support the development of the non-mineral sector, while ensuring effective use of mineral resources to sustain economic growth and raise living standards.

Directors stressed the need for appropriately tight fiscal policy during the construction phase of the liquefied natural gas plant. They welcomed the agreement on a balanced 2011 budget and recommended strict adherence to budget allocations and the limit on trust-account spending. Directors considered that it would be prudent to save windfall mineral revenues and use part of such resources to reduce government debt. They also commended the government's decision to allocate funds to meet its superannuation obligations and called on the authorities to settle the remaining arrears.

Directors recommended a tighter monetary policy stance to address inflationary pressures. They considered the staff's assessment of the real effective exchange rate and supported greater exchange rate flexibility, while noting the need to preserve the competitiveness of the non-mineral sector. Directors supported the authorities' efforts to reduce excess liquidity in the banking system by considering a further increase in the cash reserve requirement. They called on the authorities to implement fully the decision to move all new trust accounts to the Bank of Papua New Guinea.

Directors welcomed the authorities' plan to manage resource revenues through a sovereign wealth fund (SWF). They stressed that the SWF should be well governed and adhere to the Santiago Principles to ensure effective management and use of the resources. They also considered it important to integrate use of the resources in the SWF into the budget and macroeconomic framework, supported by strong fiscal institutions.

Directors observed that the liquefied natural gas and other resource projects provide an opportunity to raise long-term growth and living standards. They urged the authorities to deliver better social services—in particular, security, health, education, and basic infrastructure—to ensure that the benefits from the mineral boom are more evenly spread among all segments of the population. Directors encouraged the authorities to make further progress in structural reforms to support the development of the non-mineral sector and sustain economic growth. They also stressed the importance of firm implementation of the priorities in the authorities' medium-term development plan.

Directors noted that the financial sector remains sound and able to withstand moderate shocks. They urged the authorities to implement the FSAP recommendations and supported their efforts to improve access to financial services in rural communities.

Papua New Guinea: Selected Economic and Financial Indicators, 2007–11

Nominal GDP (2009): US$8 billion 1/
Population (2009): 6.3 million
GDP per capita (2009): US$1,272
Quota: SDR 131.6 million

	2007	2008	2009	2010	2011
				Est.	Proj.
			(Percent change)		
Real sector					
Real GDP growth	7.2	6.6	5.5	7.0	9.0
Mineral	-0.1	-1.4	-1.7	4.3	9.3
Nonmineral	8.1	7.6	6.3	7.3	8.9
CPI (annual average)	0.9	10.7	6.9	6.0	8.4
CPI (end-period)	3.2	11.2	5.7	7.8	9.5
			(In percent of GDP)		
Central government operations					
Revenue and grants	37.3	32.6	27.5	32.5	33.4
Expenditure and net lending	28.3	30.1	37.1	32.8	32.4
Overall balance (including grants)	9.0	2.5	-9.6	-0.3	1.0
Nonmineral balance 2/	-5.0	-7.4	-13.4	-7.3	-7.7
Gross public debt	33.6	31.7	32.1	26.5	21.9
Domestic	16.9	18.5	19.2	15.8	12.3
External	16.6	13.2	12.9	10.7	9.7
			(Percent change)		
Money and credit (percentage change)					
Domestic credit	5.6	15.7	37.3	4.7	19.9
Credit to the private sector	34.3	29.5	15.1	17.9	25.0
Broad money	27.8	7.8	21.3	10.0	22.6
Interest rate (182-day T-bills; period average)	4.4	5.9	7.2	6.4	…
			(In millions of U.S. dollars)		
Balance of payments					
Exports, f.o.b.	4,822	5,817	4,389	5,824	8,298
Of which: Mineral	3,673	4,263	3,403	4,636	6,607
Imports, c.i.f.	-2,629	-3,140	-2,871	-4,455	-5,480
Current account (including grants)	208	808	-649	-2255	-2420
(In percent of GDP)	3.3	10.1	-8.0	-23.7	-21.2
Exceptional financing (net)	0.0	0.0	0.0	0.0	0.0
Overall balance	657	8	529	469	367
External financing gap	0	2			
Net international reserves	2,083	2,093	2,426	2,895	3,262
(In months of goods and services imports)	5.4	5.1	6.2	5.0	4.6
Gross official international reserves	2087	2095	2623	3092	3459
(In months of nonmining imports, c.i.f.)	14	11	16	11	10
(In months of goods and services imports)	5	5	7	5	5
Public external debt					
Public external debt-service-ratio (percent of exports) 3/	4	2	3	2	1
Public external debt-to-GDP ratio (in percent) 3/	17	13	13	11	10
Exchange rates					
US$/kina (period-average)	0.337	0.370	0.363	0.375	…
NEER (2000=100, end-period)	77.7	95.0	83.3	78.3	
REER (2000=100, end-period)	98.7	135.2	116.1	113.2	
Nominal GDP (millions of kina)	18,798	21,594	22,208	25,421	31,162

Sources: Papua New Guinea authorities; and IMF staff estimates and projections.

1/ Based on period average exchange rate.
2/ Measured from above the line in the fiscal accounts.
3/ Includes central government, central bank external debt, and statutory authorities.

Statement by Christopher Legg, Executive Director for Papua New Guinea and Susan Bultitude, Advisor to the Executive Director May 13, 2011

PNG has experienced an unprecedented period of growth and stability, lasting more than 10 years and withstanding the global financial crisis.

Our PNG authorities are now in the process of establishing a path towards economic and social development and prosperity, as set out in the *Papua New Guinea Vision 2050* (Vision 2050). The vision aims to mobilize service delivery, wealth creation and human capital development across seven key pillars of society and the economy. In particular, the authorities are undertaking an ambitious reform program to harness PNG's significant resources wealth to improve the living standards of the entire population, including future generations. A detailed strategy for the first stage of the Vision 2050 is set out in the *Development Strategic Plan 2010-2030* (DSP), which establishes an interim objective of achieving middle-income status by 2030.

However, while PNG's resources wealth provides significant opportunities, it also imposes significant macroeconomic challenges. These include the challenge of managing overheating pressures, and of capturing and productively investing profits from the resources industry for the benefit of the broader community. The authorities are keenly aware of the 'boom and bust' cycles experienced in other resource-rich developing nations, and previously in PNG, and are committed to avoiding this disastrous outcome. The establishment of an offshore sovereign wealth fund (SWF) to manage wealth from PNG's natural resource projects is an important component to the authorities' strategy to overcome the 'boom and bust' cycle.

Fiscal policy

The balanced budget forecast for 2011 is a significant achievement in the context of the upcoming 2012 elections and rising public expectations of the Government's spending capacity. It withdraws the large fiscal impulse of the previous year and avoids the temptation to borrow against future LNG revenues. The authorities also take note of Staff's recommendation that the budget be tightly managed to avoid exacerbating overheating pressures. In this regard, they note that, on balance, it may be preferable to take a pragmatic approach to the savings target in the Budget in order to reduce the subsequent pressures for unplanned or unbudgeted spending.

Our authorities remain committed to a sustainable medium-term fiscal strategy (MTFS). In relation to the evolution of the MTFS rule - most recently to allow windfall revenues to be used for development investment instead of debt reduction while debt is below 30 per cent of GDP - they emphasize the need for fiscal rules to be both conceptually sound and politically realistic. The objective must be to build credibility by reinforcing political commitment to a binding but achievable framework, rather than risk eroding commitment to a framework which is too inflexible. Moreover, they note that, for countries such as PNG with relatively low levels of Government debt and large development needs, further debt reduction may not always be the most productive use of windfall revenues.

Trust fund and other off-budget accounts are being better integrated into the budget and public financial management frameworks. As part of the 2012 Budget process, the Government will require agencies to report on public monies held in trust accounts, including by reconciling actual spending, projecting future spending, providing details on how the funds will be spent, and identifying the legal authority for the operation of the trust account.

Our authorities agree that the quality of development spending is crucial if resources wealth is to be translated into genuine improvements in living standards across the economy. To this end, the *Medium-Term Development Plan 2011-2015* (MTDP), which establishes the framework for development spending in accordance with the DSP and Vision 2050, has been designed to address the main shortcomings of its predecessor, the Medium Term Development Strategy. In particular, the MTDP is policy-based, focuses on seven key priority areas, seeks to create a greater sense of ownership among local communities, and involves improved planning processes including harmonization between recurrent and development spending and between provisional and national programs. The authorities are also investing in stronger public financial management and monitoring and reporting systems.

Monetary policy

Our authorities agree that inflation is a key risk given the economy's capacity constraints and the additional demand associated with the construction of the LNG project. They are closely monitoring inflation developments, including through monthly meetings between the Bank of PNG, Treasury and the Treasurer which track the performance of the budget and its implications for inflation.

The authorities have taken a number of steps to withdraw liquidity from the economy, including requiring new Government trust accounts to be opened with the Bank of PNG instead of commercial banks, and allowing contractors involved in the construction of the LNG project to hold offshore accounts and pay for imported materials used for the project directly from these accounts. Further increases in the cash reserve requirement are also being considered by the Bank of PNG.

The Bank of PNG also stands ready to tighten monetary policy as necessary to contain inflation within single-digits, while being mindful that prematurely tightening monetary policy could unnecessarily retard growth. The Bank expects inflation to fall short of this threshold in 2011, at 8.5 percent.

The authorities are taking steps to improve the quality of inflation data, including by using the 2010 household income and expenditure survey to update the CPI basket.

Exchange rate policy

Our authorities continue to support a floating Kina. The Bank of PNG's intervention in the exchange market is guided by its price stability objectives, and is primarily designed to provide liquidity, especially to smaller institutions, given that there are few participants in the market. Two-way movement of the Kina is accommodated and the Bank has been a net seller of foreign reserves.

An appreciating Kina will bring challenges as well as benefits. While acknowledging that further appreciation of the Kina as LNG revenues begin to flow may help to reduce imported inflation and overheating pressures, the authorities are also conscious of its distribution implications. Whereas inflation impacts particularly on the urban poor, Kina appreciation is particularly damaging to rural citizens relying on export cash crops, such as coffee, cocoa and copra. With 85 per cent of the population living in rural areas with limited alternative sources of income, the impact of Kina appreciation is likely to be widespread. Moreover, Kina appreciation will exacerbate the challenges of developing the non-minerals sector in order to diversify the economy.

Sovereign wealth fund

The Government will establish an offshore sovereign wealth fund (SWF) to manage the revenue inflows from the LNG and mineral projects, and their impact on the economy. The SWF will comprise three components - a savings fund, a stabilization fund, and an infrastructure fund. The objectives of the SWF are to: promote savings to finance future spending and smooth Government spending over the long term, insulate the budget and the economy from destabilizing movements in commodity prices and output, and provide capital for the delivery of strategic nation-building infrastructure. The SWF will be funded from the dividend and tax revenue from mineral projects, in addition to the LNG project. Drawdown arrangements are under discussion, and will be integrated into the budget framework.

The SWF will operate in accordance with international standards and be subject to a high degree of legislative protection. The SWF will comply with the Generally Accepted Principles and Practices (*Santiago Principles*) established by the International Working Group of Sovereign Wealth Funds. The PNG authorities will also consider participation in the Extractive Industries Transparency Initiative once the SWF has been established. To avoid future political interference with the operation of the Fund, the legislation establishing the SWF will require a two-thirds majority vote by Parliament to be amended.

Cross-departmental bodies have been established to reach a consensus on the design and operation of the SWF. A Secretaries Committee chaired by the Secretary of the Treasury and including the Governor of the Bank of PNG is overseeing the establishment of the SWF. It is being supported by an inter-departmental working group.

Our authorities are committed to having the legislation establishing the SWF in place before the 2012 elections. Given the uncertainty about the political landscape following the elections, the authorities wish to build upon the current high level of consensus and seek passage of the laws establishing the SWF by early 2012.

Our PNG authorities would like to thank Fund staff for the timely technical assistance that is being provided to facilitate the establishment of the SWF.

Structural reforms

Our PNG authorities are pursuing wide-ranging structural reforms to mobilize investment under the guidance of the Vision 2050, DSP and MTDP.

Land development is a particular priority, as less than 5 per cent of PNG's land mass is currently available in the formal market, largely reflecting PNG's unique and diverse arrangements for customary ownership of land. The authorities are piloting new mechanisms for facilitating land leasing by groups of traditional landowners, under arrangements that protect the rights of both landowners and investors. The MTDP also provides for strengthening land administration, including through computerized land titling and land use records, streamlining dispute resolution and reducing the backlog of unresolved disputes, and introducing a Land Use Planning Scheme.

Another key priority is improving law, order and justice, as crime has become a significant deterrent to investment and tourism in recent decades. The immediate emphasis is on rebuilding the sector's capacity through the employment of additional police and court officers, improved training, establishment of new police stations and village courts, and more reliable payment of judicial officers. Additionally, the authorities will seek to address the backlog of court cases through additional judicial positions and early resolution of new cases at the community level.

The Government will also pursue policies to diversify the economy, by supporting improved productivity and market access for sectors such as agriculture, livestock, forestry, fishing, manufacturing and tourism. A range of initiatives have been identified to develop small- and medium-sized enterprises and foster local entrepreneurs, such as microfinancing, training courses, better access to markets and reducing the regulatory barriers to establishing a business.

Investment in human capital and transport, utilities and communications infrastructure will support economic development across the economy. Providing access to markets and social services remains challenging in PNG, which has some of the most rugged terrain and isolated communities in the world. The Government has identified ten 'economic corridors' where physical and social infrastructure development will be targeted, in order to maximize economies of scale and focus on areas where the gains are likely to be the greatest.

Financial sector

PNG's financial system remains well-capitalised and profitable. The banks have limited off-shore borrowing requirements, low loan-to-deposit ratios, high levels of liquidity, and low non-performing loans.

Banks are well-provisioned against future risks. Banks maintain a healthy degree of caution as to the risks associated with the mining projects and their impacts on asset prices. They have tightened their lending standards and reduced their exposure to property markets.

The PNG authorities welcome the findings of the Financial System Stability Assessment (FSSA) and take note of its recommendations. They will continue to strengthen regulation and supervisory techniques and bolster the crisis management framework. The authorities have also commenced a National Payments project to strengthen clearance and settlement infrastructure, which will combine financial stability objectives with the goal of improving financial inclusiveness. Other financial inclusion initiatives include mobile banking and payments services, financial education and microfinance.